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Arben Asllani, University of Tennessee at Chattanooga
Fazlul Miah, Fayetteville State University

MESSAGE FROM THE CONFERENCE CHAIR

On behalf of the organizing committee, I would like to welcome you to Nashville and to the Third International Conference of the American Institute of Higher Education (AmHighEd). The conference will provide an opportunity for all participants to share their ideas and research in the fields of business, economics, accounting, health care management and education.

Our previous conferences in Orlando and Atlantic City were great successes. We received many constructive and kind compliments from the participants. This was mostly because of the friendly environment that we had created by keeping the number of participants within a desirable limit and by including the participants' input and feedback in designing the conference. The number of papers that we have accepted for presentation has increased from 60 in the first conference to 120 in this conference. We have enhanced the internet division by creating a real time environment in which the participants can present and discuss their research rather than just posting it online for others to see.

We at AmHighEd believe that research is a cooperative enterprise among scholars and practitioners. That is why we are committed to providing a collaborative environment that fosters free flow of ideas and constructive feedback among researchers, practitioners, and students. We would like to thank all the attendees whose contributions and participation are very important for a stimulating environment at the conference.

I would like to take this opportunity to thank the organizing team that did an excellent job of putting this conference together. I am also indebted to our reviewers who reviewed the manuscripts and selected the best papers that fit this conference.

We hope you will find the conference productive, informative, and enjoyable. We also wish you a pleasant stay in Nashville and look forward to receiving your constructive comments that would help us in our future planning.

Sincerely,

Alireza Lari
Conference Chair
Fayetteville State University



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EDUCATION TRACK

**WE CHANGED THE WORLD TODAY: A QUALITATIVE STUDY OF COLLEGE STUDENTS
REBUILDING THE MISSISSIPPI GULF COAST DEVASTATED BY HURRICANE KATRINA****Rose M. McNeese***The University of Southern Mississippi***Gary B. Peters***The University of Southern Mississippi***ABSTRACT**

When Hurricane Katrina made land-fall on the Mississippi Gulf Coast August 29, 2005, the face of Mississippi changed forever as the most massive and destructive natural disaster in American history took thousands of lives, homes, and whole communities. Initially, the entire nation responded to help rebuild the devastated areas; however, the recovery efforts moved slowly and resources and volunteers had dwindled significantly within a year after the storm. As time passed and Hurricane Katrina was no longer daily head-line news, the suffering of the people affected by the storm did not go away and the care takers needed support and backup man power to keep the recovery efforts going.

The purpose of this qualitative study was to gather information about the recovery efforts being made during 2008 along the Mississippi Gulf Coast in the after math of Hurricane Katrina, who was providing the services, and what resources they were providing. This study used focused-group methodology to analyze the interviews of 52 university students volunteering to help with the recovery of Waveland, Mississippi, two years after the massive destruction left as the hurricane swept away the Waveland community. Results showed that college students' attitudes were positively impacted by their volunteer experiences. The study revealed that the volunteering college students were unhappy with the lack of coordination of relief services, the minimal presence of the federal and state agencies, and the few resources available for recovery in this area. During the focus group discussions, the students expressed their determination to become future leaders in America and to use their influence to orchestrate better responses for future disasters.

SCHOOL-COMMUNITY-BUSINESS PARTNERSHIPS: STANDARDS FOR SUCCESS**Jill E. Fox***University of Texas at Arlington***Robert Cohen***Virginia Commonwealth University***ABSTRACT**

The passage and implementation of the *No Child Left Behind Act* placed a new emphasis on high academic standards and student achievement. Schools and communities are forming partnerships to provide support for students and their families in meeting these standards. A thorough review of the literature on school-community-business partnerships reveals common trends and belief systems among those successfully engaged in such partnerships. This paper summarizes the existing literature on school-community-business partnerships and presents a set of standards that may provide guidance for those seeking to initiate such a collaboration or for the assessment and evaluation of existing partnerships. These standards include the following aspects of partnership: strong partners, shared vision, focus on student learning, involving families, involving teachers, administrative support, and reciprocal service. Implications of the literature are discussed and recommendations for partnership development and activities are discussed.

INTRODUCTION

The *No Child Left Behind Act of 2001* (NCLB) required states to raise academic expectations and provide support for student learning. The challenges that emerged as many schools struggled to meet these expectations, however, made it evident that schools and students need the support of families, teachers, and the community if they are to succeed (Epstein & Salinas, 2004).

Many influences on children's learning are beyond the school's control. In a study of neighborhood influences on African American children, Brody et al (2001) found that children living in disadvantaged communities are more likely to associate with antisocial peers. Even for children from nurturing, supportive families, these associations have a negative effect on academic progress. Baker et al (2000) looked at the effect of community on standardized test scores. Although community educational level and students' socio-economic status were the strongest predictors of test scores, other variables, such as family poverty and median income levels were interrelated. Community values, however, may play a more important role in children's academic success. Bickel, Smith, and Eagle (2002) found community values, rather than income levels, to be most influential on student achievement. Social accessibility and shared outlook in communities provide a supportive context for students and families. In communities where this support is available, families expect positive, friendly, informal relationships and share worldviews with neighbors. The more neighborhoods demonstrate these expectations, the more student achievement is enhanced. Communities are realizing that academic success is a community endeavor. The resources and talents of educators, families, businesses, and community agencies must be pooled if students are to achieve.

Collaborative partnerships, designed to share human and material resources, have been developed to support learning in many schools. Sanders (2002) defined school-community partnerships as "connections between schools and community individuals, organizations, and businesses that are forged to promote students' social-emotional, physical, and intellectual development" (p. 20). Schools are motivated to build partnerships with businesses and other organizations to encourage these groups to take more ownership of schools and to be motivated to assist in the education of children (NREL, 2000).

REVIEW OF LITERATURE

The effectiveness of school-community partnerships in enhancing student learning is well-documented. Studies show that students attending schools engaged in partnership activities have higher grade point averages and standardized test scores; are enrolled in more challenging academic programs, have more classes passed and credits earned; have better attendance, improved behavior at home and at school and better social skills and adaptation to school. (Dryfoos, 2000; Henderson and Mapp, 2002; Invernizzi et al, 1997; Scales et al, 2005; Sheldon and Epstein,

2005). Business executives identified four areas in which school-business partnerships benefited both school and business partners: human capital development, community development, student achievement, and financial impact (NAPE, 2000). Businesses want employees to be knowledgeable about the world of work and to be critical thinkers, problem solvers, communicators, and adept at working alone and collaboratively. They want employees who can make civic, as well as economic, contributions to the community (Weeks, 2003). Partnerships enhance business relationships with the community and lead to a better understanding of community needs (Hopkins & Wendel, 1997).

Building a Partnership

Mann's (1987) research identified four hallmarks of reciprocal partnerships: a coordinating structure, multiple purposes, multiple players, and stability. Increasingly, partnerships are exploring new models of planning and decision-making. Working committees, including parents, teachers, and students, as well as business and community members, are empowered to review data, research options, and make recommendations about curriculum, school size, facility design and other issues. In this model, school boards receive clear input and direction about community wants and needs, and they receive community ownership and buy-in (Bingler, 2003).

Epstein and Salinas (2004) recommended a slightly different approach to building school-community partnerships. Advocating a process developed by the National Network of School Partners, Epstein and Salinas asserted that an Action Team, composed of teachers, administrators, parents, and community partners and linked to the site-based management team, provides the basis for a well-organized school-community partnership. Using the school's improvement goals, the team develops an annual plan for family and community involvement. This plan integrates and evaluates all partnership and school activities and programs. Data from 577 schools participating in the NNSP (2002) indicated that such a structure leads to the school's ability to sustain high quality partnership programs

Successful Partnerships

The literature on school-community partnerships outlines traits of successful collaborations.

Strong Partners.

Strong, productive partnerships are created by strong partners, each with a vested interest in the collaboration and the community (ECS, 2004). Various methods of conflict resolution, mediation, negotiation, and compromise are introduced as partners identify, plan for and work toward their goals (Davies, 2002). Since urban environments are characterized by diversity in race, socio-economic status, language, and academic and economic opportunities, representation of this diversity within the partnership is essential to understanding the issues facing schools, students, and families.

Shared Vision.

A successful partnership is built on a common vision for the future of the school and community. This common vision is what brings partners together and then sets the stage for discussion of the most effective means to achieve the vision and the resources each partner can contribute.

Student Learning and Achievement.

Student learning and achievement must be the focus of the partnership (Epstein and Salinas, 2004), but action plans should incorporate other aspects of students' lives, as well. Partnerships must recognize that academic achievement is related to students' relationships, physical well-being, and perceptions of self and the environment.

Involving Families.

Adult family members are the most knowledgeable sources of information about communities and the needs of students. As Epstein (2001) stated, "Even when they do not come in person, families come [to school] in children's minds and hearts and in their hopes and dreams" (p. 4). Partnerships need to involve adult family members in all phases of their work, including identifying a vision for the partnership and developing a plan of action (Davies, 2002; Nichols-Solomon, 2000).

Involving Teachers.

If a partnership is initiated by a principal or superintendent, teacher participation may be the result of a directive, not an invitation. Teachers are the "front line" in work with students and families and their input is essential to meeting partnership goals related to student success. DuFour (2004), however, cautions that an investment of resources may be necessary if teachers are to participate without sacrificing student learning or the teachers' personal time.

Administrative Support at the District-Level.

District leaders are needed to consistently recognize, support and occasionally reward the partnership's activities (Nichols-Solomon, 2000). This support may come in the form of a paid parent coordinator, public recognition, or consideration of teacher efforts in annual evaluations (Davies, 2002).

Schools Serving the Community.

Support should flow between all partners. Epstein (1995) asserted that schools can and should provide useful services to the community, as well as receive services from the community. Such two-way collaborations send a powerful message to students that their knowledge, skills and efforts are useful and valued.

STANDARDS FOR SUCCESS

Based on the traits of successful partnerships briefly described above, the following standards are proposed. Reviewing these standards is necessary for school, community and business organizations considering the initiation of a partnership, to ensure that the ingredients of commitment, vision, diversity, and resources are present. Likewise, a review of these standards should be undertaken by organizations already engaged in a partnership, to ensure that the needs of all partners are met and that the foundations have been laid for on-going work and achievement of the partnership's goals.

Standard 1: Strong Partners

Each participant in the school-business partnership is a strong stable entity. Partners seek to include other entities in the partnership, recognizing that school-improvement is a community-wide concern. Partners consider diverse representation an essential ingredient in the partnership if community needs are to be identified and met. Partners agree to work according to democratic principles. Each partner is committed to continuous participation. The partnership establishes a clear vision of its goals and a well-articulated plan of its activities to ensure a smooth transition if changes in representation do occur.

Standard 2: Shared Vision

The partnership develops and clearly articulates a shared vision of its work. This vision includes the end goals of the partnership, as well as individual objectives that must be addressed if the goals are to be achieved. An action plan, clearly articulating each partner's commitment of time and human and material resources, is established, along with a timeline for the activities. The shared vision and the action plan are agreed to by all partners and are the focus guiding principles by which the work is carried out.

Standard 3: Student Learning & Achievement

The of the partnership is on student learning and achievement. The partnership recognizes that standardized test scores are only one measure of student learning and seeks to improve the quality and nature of students' socio-emotional development, physical well-being and academic learning. The partnership acknowledges students' family and community contexts as key factors in student outcomes. The success of the partnership is determined by relevant, concrete, and specific data on student outcomes.

Standard 4: Involving Families

Partnerships understand that adult family members are expert sources of information on student and community needs, as well as on the culture and resources within the community. Adult family members are important, contributing members in all aspects of the partnership's work. Partnerships understand the importance of the family context for the student growth and development.

Standard 5: Involving Teachers

Classroom teachers are invited, rather than required, to participate in the partnership. Teachers are valued because of their relationships with students and their families and because of their expertise on teaching and learning. Resources and principal support are available to facilitate teacher participation partnership without sacrificing student learning or teachers' personal time.

Standard 6: District Support

Administrators organize flexible policies and procedures through which partners may work. Administrators consistently recognize the work of the partnership and its value to students.

Standard 7: Schools Serving Communities

Support and service flow reciprocally between all partners. Each partner has knowledge of the systems and operating cultures of other partners and is aware of resources and opportunities available in each setting.

Standard 8: Structures, Resources, and Roles

The partnership establishes organizational structures and commits resources to support a shared vision. Students and schools provide meaningful service to their communities, along with receiving support from the partnership. The partnership effectively uses communication to coordinate and link with the school district and the community and to inform the public, policy makers, and professional audiences of its work.

CLOSING

School-community-business partnerships are not likely to solve all of the challenges facing public schools. They are not a substitute for well-trained, well-paid, effective teachers and administrators; good books and materials, diverse instructional strategies; commitment to high standards of academic content; good, varied tools for assessing student achievement; ample time for student learning, and safe, orderly, and well-managed schools (Davies, 2002, p. 389). But school-community-business partnerships do provide an essence that has been missing from American schools in recent times: a sense that the local community cares about the education of its children and is willing to invest time, effort, and resources into their learning and development. This is only one step toward making public schools the safe, equitable and effective settings they should be for our children—but it is a significant one.

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SENSE OF COMMUNITY AS A PREDICTOR OF ADULT LEARNER PERSISTENCE IN ACCELERATED DEGREE PROGRAMS?

Michael O. Minor
University of Memphis

Katherine Causey
LeMoyne-Owen College

ABSTRACT

This research in progress will investigate adult learners' persistence in accelerated degree programs (ADP) using measurements of sense of community (SOC). A quantitative methodology will be used because statistical analysis will be critical in analyzing the efficacy of SOC measurement instruments. This study will focus on adult learner experiences both in the ADP as a whole and in the specific course in which the tool is administered. The data will be collected in multiple terms through a questionnaire distributed to all adult learners in a given ADP. By analyzing prevalent SOC measurement instruments to develop an integrated model, this study will contribute to the body of knowledge useful in assessing adult learner persistence in ADPs proactively during a given term with the possibility for relevant "in term" remedial actions. Based upon underlying theory, it is hypothesized that an integrated model will have a large effect size.

INTRODUCTION

This research in progress will investigate adult learners' (typically defined as 25 years of age and older) persistence in accelerated degree programs using measurements of sense of community (SOC). Due to a myriad of responsibilities, adult learner persistence in colleges is problematic even in accelerated degree programs. As former and current accelerated degree program directors, the researchers will interject first hand experiences.

Research indicates that the quality of learning and the attitudes of students in accelerated programs are similar or superior to those in traditional programs (Scott & Conrad, 1992; Wlodkowski & Westover, 1999). But little is known about how adults persist or succeed in accelerated programs or how their progress compares with that of adults in more traditional programs. In general, only 30 percent to 55 percent of the students who enroll in college graduate within five years, but specific rates for adult students, whether in accelerated or traditional programs, are unknown. More research is needed in this area to inform social and academic policy to support and manage the programs in this expanding sector (Wlodkowski, Mauldin & Gahn, 2001, p. 1).

The opening statement about adult learners in accelerated degree programs underscores the importance of not only recruiting but also retaining adult students. Why? According to Reed (2005), "...adult enrollment...is projected to be more than 6.7 million by 2012. By that time, according to the American Council on Education, more than half the student population will be over 25" (p. 4).

Who is the adult learner? Kasworm (2003) defined adult students as those who represent the status of age typically defined as 25 years of age and older who, by 2012, will comprise half the student population (Reed, 2005). With such a dramatic shift in the demographics of students attending higher education institutions, colleges must adjust their course delivery methods and student support services to accommodate this emerging population.

Because of the job and family responsibilities they face, adult learners are more likely to enroll as part-time students than their younger traditional counterparts (American Council on Education [ACE], 2006). Most of these part-time learners are females from minority groups (ACE, 2006). African Americans constitute a larger proportion of the student body in older age groups than among students under the age of 25, but race has been relatively unexamined in research on adult students in higher education (ACE, 2006).

A growing alternative for adult students are accelerated degree programs. Accelerated degree programs typically have four characteristics: degree completion after an extended absence (Adelman, 1999), flexible class schedule (week night and/or weekend classes) (Cross, 1981), accelerated pace to degree completion (Cross, 1981), and credit for experiential learning (Cross, 1981).

According to The Commission of Higher Education North Central Association of Colleges and Schools (2000), "[a]dult degree completion programs...are growing at a rapid pace across the nation. After only about 100 programs in 1983 (p. 1), the 1990's saw a surge in the number of accelerated degree programs. (In 2008), there are about 300

accelerated learning programs nationwide” (CAP Network FAQ, 2008). Over the next ten years, it is expected that 20% of adult learners will be enrolled in accelerated programs (Richardson, 2008, p. 2).

In a study by Wlodkowski, Maudlin, and Campbell (2002) on persistence rates of adult students in accelerated degree programs, Wlodkowski (2003) stated, “positive involvement with peers and faculty continues to encourage adult students to persist” (p. 12). Students who become connected to a cohort of students will find that their co-learners help them over the road when it becomes rocky. Students who try to go it alone will find the road treacherous (Tweedell, 2000, p. 41). Persistence is associated with connectedness.

Connectedness is a component of sense of community (SOC) (Rovai, 2002a, p. 197). SOC is associated with several positive adult learner outcomes including learning, persistence, and goal achievement. A strong SOC increases adult learners’ “commitment to group goals, cooperation among members, satisfaction with group efforts, and motivation to learn (Bruffee, 1993; Dede, 1996; Frymier, 1993; Wellman, 1999)” [Rovai, 2002b, pp. 320-321]. Quinn and Carlson (2003) touted the robust nature of SOC, “a sense of community has been shown to be a positive factor in persistence in research conducted with traditional students, nontraditional students, and students in accelerated degree completion programs” (pp. 243-244).

Quinn and Carlson (2003) concluded that “a sense of community has been shown to be a positive factor in persistence in research conducted with traditional students, nontraditional students, and students in accelerated degree completion programs” (pp. 243-244). Harris (2002) researched the “importance of creating a ‘sense of community’ within an adult student cohort” (p. 245). She found results supporting Naretto’s (1995) suggestion “that membership in communities comprised of fellow students was perceived by adults as an important factor in explaining persistence of adult students to degree completion” (p. 246). There is evidence “that students reporting a high sense of community feel burned out less often at school” (Rovai, 2002b, p. 321).

In adult learner environments, Terry (2004) incorporated Sergiovanni (1994)’s application of the importance of creating a “community of commitment and interdependence” (Terry, 2004, p. 25). The presence of SOC does not necessarily infer persistence, learning, and positive faculty/student involvement exist.

HYPOTHESIS

The hypothesis of this research in progress is that a high SOC measurement score is associated with a higher likelihood of student persistence. Based upon underlying theory, it is hypothesized that an integrated model will have a large effect size. It also will support SOC as a predictor of learning and goal achievement.

PURPOSE OF STUDY

The purpose of this quantitative study in progress is four-fold. First, the overarching hypothesis of this research is to assess whether SOC is a good predictor of adult learner persistence in accelerated degree programs. Secondly, through a review of the literature, there will be an effort to determine the prevalent instruments for measuring sense of community (SOC). Third, analysis will be undertaken to compare and contrast the prevalent instruments. Finally, factor analysis will be undertaken to assess the efficacy in combining and/or integrating these instruments in an abbreviated tool? This study will focus on adult learner experiences both in the accelerated degree program as a whole and in the specific course in which the tool is administered.

THEORETICAL FRAMEWORK

The theoretical framework for this research is couched in the seminal work on sense of community (SOC): McMillan and Chavis (1986) *Sense of Community: A Definition and Theory*. Another supporting theory is adult learning styles from Knowles (1980) and Knowles and Associates (1984). Sociology and social psychology provide an overarching frame for the context of these theories and models.

RESEARCH QUESTIONS

Four questions will guide this research:

1. Is SOC a good predictor of adult learner persistence?
2. What are the prevalent instruments used to measure SOC?
3. How do these instruments compare and contrast?
4. Is there efficacy in combining and/or integrating these instruments in an abbreviated tool?

SIGNIFICANCE OF STUDY

The 21st Century adult learner has much different needs than previous generations. Consideration must be given to characteristics of adult learners other than age. There are certain life changes that trigger the adult learners' need for additional education. With the emerging research on adult learner persistence in accelerated degree programs, this study hopes to:

1. identify the prevalent, most efficacious instruments for measuring SOC;
2. develop a combined or integrated integrated SOC measurement model based upon the most efficacious SOC measurement instruments; and
3. contribute to the body of knowledge useful in assessing adult learner persistence in accelerated degree programs proactively during a given term with the possibility for relevant "in term" remedial actions;
4. design a model with ease of use but efficacious for institutional researchers.

DESIGN OF THE STUDY

From the prevalent, most efficacious instruments measuring SOC, a questionnaire will be developed including the questions from each instrument. Demographic data obtained will be age and gender. Length of time in the program will be determined by the cohort section surveyed – first semester or second/third/fourth semester. The instrument questions will be measured using a five-point Likert Scale.

SETTING FOR THE STUDY

This research in progress is taking place on the campus of a private liberal arts historically black college (HBCU), with a total enrollment in Fall 2008 of 780 students. Although the college is affiliated with the United Church of Christ and the Tennessee Baptist Missionary and Educational Convention, students of all religious affiliations are admitted. Specifically, the study surveyed students in an accelerated degree program in business.

DATA COLLECTION AND OTHER PROCEDURES

Data will be collected continuously, beginning in Fall 2008, through a questionnaire distributed to all adult learners in the given accelerated degree program and from the relevant registrar's office.

VARIABLES

In this study, the dependent variable will be the score for sense of community (SOC). In addition to demographic variables, there will be numerous other independent variables based upon the number of questions of the instruments used to measure SOC. The demographic variables will include gender and age. The accepted age for adult learners is 25 years of age and older. Furthermore, there is research supporting the notion of differentiation in learning habits of older adult learners (Brady, 2006; Moseley & Dessinger, 1994). Female students comprise 60% of African American adult learners. Moreover, Ginsberg and Wlodkowski (2000) concluded that being a woman was positively associated with adult learner persistence. Thus, there will be assessments of age and gender with respect to student persistence.

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AN APPLICATION OF PACE'S MODEL OF STUDENT DEVELOPMENT AND COLLEGE IMPRESS ON LEARNING COMMUNITY STUDENTS

Louis M. Rocconi

The University of Memphis

ABSTRACT

Pace (1979) delineates a model for the study of student development and college impress in which he postulates that the extent to which students exert their time and effort in the educational opportunities offered by institutions will directly impact their growth and development in college. Structural equation modeling is used to test whether Pace's model can be used to accurately describe a sample of learning community students' development and gains during college, with the student outcome being perceived gains in general education and intellectual skills. Results strongly support Pace's proposition that student effort is the most important determinate of perceived gains. Moreover, results strongly support the use of Pace's model as a theoretical framework that may be used to study learning community students' development and gains in college.

INTRODUCTION

A growing number of institutions are beginning to implement learning communities as an attempt to improve undergraduate education (Shapiro & Levine, 1999). Learning communities have been defined by Gabelnick et al. (1990) as the "purposeful restructuring of the curriculum by linking courses that enroll a common cohort or students. This represents an intentional structuring of the students' time, credit, and learning experiences to build community, and foster more explicit connections among students, faculty, and disciplines" (p. 5). Learning communities often attempt to move collaborative learning beyond the classroom and into broader aspects of students' lives. While there are many variations of learning communities on campuses across the United States, learning communities have two common elements: shared or collaborative learning and connected learning (Pascarella & Terenzini, 2005). Shared or collaborative learning comes from students enrolling in several common courses, thereby increasing the likelihood of an integrated social and academic experience. Connected learning comes from learning communities being organized around a central theme or topic, such as college major or interest. Cross (1998) suggest that the purpose of learning communities is to facilitate active over passive learning, teamwork and cooperation as opposed to competition, and community instead of isolation.

Research on learning communities is in its infant stage. Most research has measured student learning almost exclusively with student self-reported gains (Pascarella & Terenzini, 2005). Nevertheless, there is some evidence that suggests participation in learning communities is linked with the student perceptions that they are deriving greater benefit from their college experience. In their meta-analysis of more than 300 cooperative learning environment studies, Johnson, Johnson, and Smith (1998) report that learning communities help promote the social adjustment and integration to college life, persistence in college, and greater integration of students' academic and nonacademic lives.

In their extensive literature review of the research surrounding college students, Pascarella and Terenzini (2005) describe a variety of theories and models that have been used to study college effects on students. Astin's (1970) "input-environment-output" model and Tinto's (1975) longitudinal model of student departure, which has been used to measure a variety of outcomes other than persistence, have received much attention in the literature related to college effects on students. However, higher education scholars have paid little interest to the work of C. Robert Pace (1979), who in his book, *Measuring Outcomes of College*, delineates a model for the study of student development. While his model does not contain explicit assumptions and hypotheses related to predicting student behavior, it is as complete as the models developed by Astin and Tinto.

According to Pace (1998), "prior research had not included what turns out to be the most influential variable--the quality of effort that students themselves invest in using the facilities and opportunities for learning and development that exist in the college setting" (p. 18-19). Pace postulates that student background characteristics will affect a student's status in college and a student's status in college will in turn impact the quality of effort that student invests in his or her collegiate activities. It is the effort that students expend that Pace argues is the most important determinant of college outcomes. This quality of effort will then impact students' impression of the institutional environment, and the students' perception of the college environment, along with the quality of effort expended, will have the greatest influence on students' perceptions of development and gains. Ethington and Horn (2002) found strong support for Pace's model when testing the model on a national sample of community college

students. They found that quality of effort had a major influence on students' perceived personal and social development.

METHODOLOGY

Participants

Participants were freshmen at a public research university located in a large metropolitan city in the southeast United States. The university's learning community program consisted of nine communities with a total of 149 first-time, full-time students. These students' class schedules for the Fall semester 2007 were prearranged depending upon their learning community section. Approximately 50 percent of the learning community students was White, 40 percent was African-American, and 10 percent was from other ethnic backgrounds. Due to the small number of participants from other ethnic backgrounds, only Whites and African-Americans were included in the study. The final sample consisted of 109 White and African-American students who had complete data on the variables described below. Approximately 27.5 percent of the sample was males and 72.5 percent was females. The average ACT score for participants was 21.82 with a standard deviation of 3.13.

Conceptual Model

The conceptual model used in this study was based on Pace's (1979) model of student development and college impress. Pace postulates that the extent to which students exerts their time and effort into the educational opportunities offered by institutions directly impacts their growth and development as a result of attending college. Pace further argues that while institutions provide the setting and opportunities for student engagement and students participate in these activities, it is the quality of that engagement not the mere participation that impacts students' growth and development. He defines quality of effort as voluntary behavior or personal investment that students are making for their own education. Pace believed that quality of effort could be measured, and he developed an instrument called the *College Student Experience Questionnaire (CSEQ)* to measure students' effort and involvement.

Pace's (1979) model is formulated into three basic propositions. The first is that the college experience encompasses the events in which a student engages while in college. These events include not only activities occurring inside the classroom but also events that may occur outside the classroom as well. These opportunities may include interaction with faculty and other students, utilizing the library, participating in clubs and organizations, or improving one's writing skills. The second proposition stipulates that the way students make sense of these experiences is impacted by the characteristics of the college environment and the quality of effort that students expend. Finally, Pace's third proposition is that the combination of institutional environment and effort that students exert both contribute to students' development and gains.

The model consists of four sets of measures. Pace (1979) argues that one must first consider the students' background characteristics they bring with them to college. In this study, the background variables are measures of students' gender, ethnicity, and prior ability, as measured by students entering ACT score. Secondly, Pace acknowledges that students' status in college must also be considered, such as whether they transferred or not, and whether they are full-time or part-time. Since all the participants in this study are full-time, first-year freshmen, this measure of a students' status in college is constant and is left out of the analysis. Background characteristics are hypothesized to have a direct influence on students' college activities, conceived as the quality of effort students invest in taking advantage of the opportunities for learning provided by the institution. It is this effort that Pace argues is the most important determinant of academic outcomes. Having experienced the institution, students form an impression of the college environment, and subsequently, develop perceptions of the extent to which they have made gains or educational progress. The full structural equation model is presented in Figure 1.

Measures

All measures used in this study were taken directly from the *College Student Experience Questionnaire (CSEQ)*. Self-reported measures are frequently criticized for their subjectivity. However, in his own study of the *CSEQ*, Pace (1984) has shown that students' reports of their college experiences are accurate and credible. Gender and ethnicity were perfectly measured. Prior ability was measured as a student's highest score on the ACT. Student involvement in academic and social activities, conceived as quality of effort, was measured by five scales constructed from students' reported use of the library (8 items), effort in writing (6 items), effort in coursework (9

items), experiences with faculty (9 items), and participation with student acquaintances (10 items). Reliability coefficients for these scales were 0.80, 0.78, 0.84, 0.88, and 0.91, respectively. Perception of the institutional environment was measured by two scales derived from the *CSEQ* environment measures. The first scale measured students' perception of the academic environment and included three items related to emphasis on scholarship, aesthetics, and critical thinking. The alpha reliability coefficient for this scale was 0.79. The second environment scale measured the supportiveness of the interpersonal environment and included three items related to students' relationship with other students, faculty members, and administrators. The alpha reliability coefficient for this scale was 0.67.

Questions on the *CSEQ* asked students the degree to which they had made gains in several areas of learning. The outcome variable, gains, was measured by two scales derived from the *CSEQ* gains measures. Gains in general education were measured using six items that asked participants to indicate the degree to which they believe they had made progress in gaining a broad general education, the understanding and enjoying art, music, drama, and literature, understanding history and other parts of the world, and an awareness of other philosophies. The alpha reliability coefficient for this scale was 0.81. Gains in intellectual skills were measured using six items concerning thinking analytically, synthesizing ideas, learning independently, writing and speaking effectively, developing good health habits, and using computers and other technology. The alpha reliability coefficient for this scale was 0.84.

DATA ANALYSES AND RESULTS

Data analyses were carried out in three phases. First, residual statistics were checked for potential outliers and influential data points. Additionally, variance inflation factors were checked for problems with multicollinearity. Prior to the estimation of the model, exploratory analyses were conducted testing the assumption of multivariate normality, which underlies application of maximum likelihood estimation. To test this assumption, data were analyzed using PRELIS 2.72 (Joreskog & Sorbom, 2005a). Multivariate normality was evaluated both univariately by checking the marginal distribution of each variable and by checking the multivariate skewness and kurtosis coefficient (McDonald & Ho, 2002). The assumption of multivariate normality was met ($\chi^2 = 3.691$, $p > .05$). Additionally, chi-square test of univariate normality for continuous variables showed that all *CSEQ* scales were normally distributed.

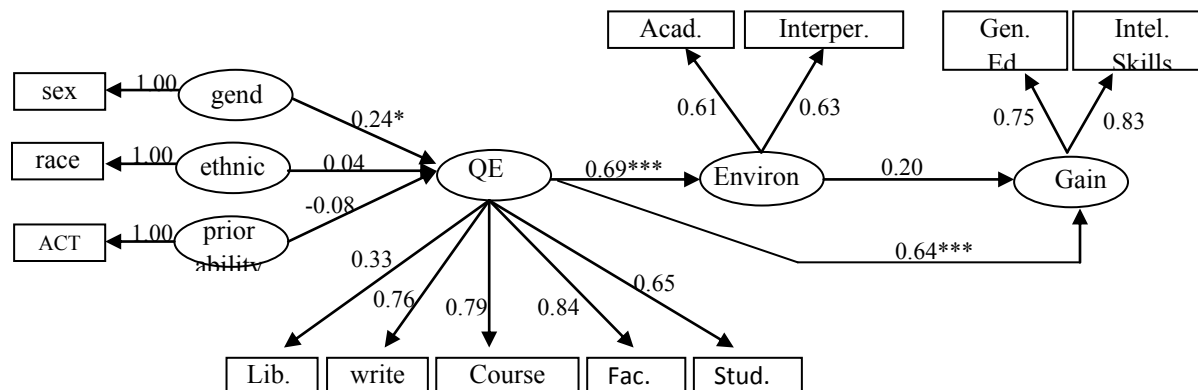
The second phase consisted of a confirmatory factor analysis testing the measurement model. Data were analyzed using LISREL 8.72 (Joreskog & Sorbom, 2005b) to determine if the observed variables provided an accurate representation of the latent constructs. Since the assumption of multivariate normality was met, maximum likelihood estimation procedures were used. Fit indexes were used to assess the degree of fit between the data and the model. The model chi-square, the Steiger-Lind root mean square error of approximation (RMSEA) with its 90 percent confidence interval, the Bentler comparative fit index (CFI), and the standardized root mean square residual (SRMR) were selected based on the current state of practice and recommendations about what to report in written summaries of structural equation modeling (SEM) analyses (McDonald & Ho, 2002; Kline, 2005). An examination of the goodness-of-fit results revealed that the measurement model did provide an acceptable representation of the observed data ($\chi^2 = 50.43$, $df = 42$, $p > .05$, RMSEA = 0.043, 90% C.I. RMSEA = (0.00; 0.082), CFI = 0.98, SRMR = 0.05).

The final phase tested the whether the theoretical model provided an acceptable representation of the causal structure. In this phase, the measurement and structural portions of the model were combined. The program tested whether the covariance matrix implied by the full structural equation model (Figure 1) differed significantly from the observed covariance matrix. Goodness-of-fit results revealed that the conceptual model did provide an acceptable representation of the observed data ($\chi^2 = 50.07$, $df = 48$, $p > .05$, RMSEA = 0.02, 90% C.I. RMSEA = (0.00; 0.067), CFI = 0.99, SRMR = 0.051).

An examination of the direct, indirect, and total effects for the conceptual model revealed that females exerted more quality of effort in academic and social activities than males ($\gamma = 2.49$, $p < .05$) and that ethnicity and prior ability did not have a significant effect on quality of effort in academic and social activities ($R^2 = 0.066$, $p < .001$). Perception of the college environment was directly impacted by quality of effort in academic and social activities ($\beta = 0.27$, $p < .001$; $R^2 = 0.48$, $p < .05$); moreover, gender had an indirect effect on perceptions of the environment with females perceiving a more favorable college environment than males ($\gamma = 0.56$, $p < .05$). Quality of effort in academic and social activities had a significant direct impact on students' perception of gains ($\beta = 0.46$, $p < .001$); however, perceptions of the college environment did not have a significant impact on students' perceptions of gains ($R^2 = 0.62$, $p < .01$). Furthermore, gender had a significant indirect effect ($\gamma = 1.29$, $p < .05$) on gains through quality of effort as the mediating variable. Pedhazur (1982) argues that standardized coefficients greater than 0.05 are large enough to be of substantive importance and that these coefficients should be interpreted. Following Pedhazur's

reasoning, it can be argued that although environment was not found to be significant using a two-tailed probability test, its standardized coefficient of $\beta = 0.20$ is of substantive importance and one reason for its nonsignificance could be due to the small sample size. Moreover, the coefficient for environment ($\beta = 0.20$) was positive, as predicted by Pace.

Figure 1. Full Structural Equation Model with Standardized Factor Loadings and Direct Effects



DISCUSSION

These results strongly support Pace's (1979) proposition that student effort is the most important determinant of growth and development while attending college. As seen in these results, the most important influence on this set of learning community students' perceived gains was from the effort they exert in their academic and social activities. Furthermore, the greater the effort students exert in their activities on campus, the more challenging and friendly they perceive their institution, and that, in turn, impacts students' perceived gains. Thus, student effort not only directly and positively impacts student's perceived gains, but also positively and indirectly enhances those gains by contributing to students' perception of the college environment.

Pace (1979) argues that students' perceptions of the institutional environment make up the background and motivation for student growth and development. Students first encounter the college environment at entry and develop their perception through involvement with other students, faculty, coursework, and utilizing campus facilities and other opportunities provided by the institution. Through this involvement, students learn the expectations of the environment and the behaviors it rewards. These experiences lead students to engage in the amount of effort that is required for their desired outcomes. Pace claims that it is the combination of the environment and effort students put forth that produces growth and development. Furthermore, influence on gains from any background characteristic was manifested only indirectly through quality of effort in academic and social activities. These patterns of influences are all evident in this sample of learning community students. The nature of learning communities fosters student and faculty interaction, collaboration on coursework, and relationships with other students, which promote positive perceptions of the collegiate environment and positive perceptions of academic gains.

Where Pace's model was not supported was related to the statistical significance of the perceptions of the institutional environment on academic gains. The greater the effort expended in academic and social activities was expected to positively influence the perception of the college environment thus positively affecting students' perceptions of gains. Although the effect was not statistically significant, the standardized coefficient of perceptions of the college environment was large enough, according to Pedhazur (1982), to be of practical importance. Thus, the more involved students were in academic and social activities lead these students to perceive the institutional environment more positively therefore leading to a higher perception of academic growth and gains in college.

These results present strong evidence to support the utilization Pace's (1979) model of student development and college impress to study learning community students' development and gains in college. Pace developed his model and the *CSEQ* in an effort to provide guidance to colleges and universities in their own studies for understanding institutional effectiveness. Pace argued that by focusing on both effort and environment in the model, a shared view of responsibility is shown. That is, institutions are responsible for providing students with the opportunities for learning and development and establishing an environment conducive to scholarship and growth, and it is the students' responsibility for taking advantage of these opportunities. Both types of responsibilities need to be considered to optimally understand college student development.

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USING MATH MANIPULATIVES IN A LONGITUDINAL STUDY TO REDUCE ARITHMETIC MISCONCEPTIONS AND IMPROVE ARITHMETIC KNOWLEDGE IN ELEMENTARY EDUCATION MAJORS

Michael Green
UNC Charlotte

John A. Piel
UNC Charlotte

Claudia Flowers
UNC Charlotte

ABSTRACT

This longitudinal study examined the impact of short-term, manipulative-based arithmetic instruction on improving knowledge and decreasing misconceptions. This treatment reflected constructivist principles using an approach called “guided constructivism.” Participants were 34 elementary education undergraduates enrolled in a child development course at an urban, comprehensive university. The design included three data collection points: (a) a pretest survey of arithmetic misconceptions and knowledge, (b) a posttest survey at the end of the course, and (c) a longitudinal follow-up survey during student teaching, typically 18 months after the course. Pre- to posttest survey scores showed a statistically significant increase in arithmetic knowledge accompanied by a significant decrease in arithmetic misconceptions. At the 18 months follow up, significant gains in knowledge and significant decreases in misconceptions were still present. The results indicate that manipulatives can effectively and efficiently reverse long-standing arithmetic misconceptions and increase arithmetic knowledge before education majors enter classrooms as full-time teachers.

INTRODUCTION

In *Principles and Standards for School Mathematics* (NCTM, 2000), the National Council of Teachers of Mathematics addressed the lack of mathematics sophistication in preservice teachers:

[T]eachers must know and understand deeply the mathematics they are teaching... They need to... be skillful in choosing from and using a variety of pedagogical and assessment strategies... They need to know the ideas with which students often have difficulty and ways to help bridge common misunderstandings. (p. 17)

A significant barrier to mathematics understanding and pedagogy is that most teachers simply end up teaching in much the same way they were originally taught as students, as if their professional training could do no better (Bauersfeld, 1998; Désautels, 2000). Such a situation can be made even worse if pass on arithmetic misconceptions (i.e., false knowledge believed to be true knowledge) that could ultimately mislead one or two generations of new students. In order to advance teachers’ mathematics understanding and improve their pedagogical effectiveness, we must find effective ways to reverse well-documented teacher misconceptions about arithmetic.

The most extensive work on teachers’ arithmetic misconceptions has been reported by Graeber, Tirosh, and Glover (1989) and Tirosh and Graeber (1989, 1990a, 1990b). The significance of that body of work is twofold. First, it measured the prevalence of misconceptions, and second, it pioneered a “cognitive conflict” procedure for reversing the misconceptions. Yet in nearly two decades since the original reports, relatively little work on teacher misconceptions has been undertaken (Green, Piel, & Flowers, 2008).

The Tirosh and Graeber misconception research were landmark studies, but they contained important limitations. First, the conflict-teaching interviews served as both independent and dependent variables, thereby confounding the treatment with its resulting effect. Second, inducing cognitive conflict can be an “iffy,” often inefficient enterprise, because individuals seldom recognize their own misconceptions. For example, of 21 subjects, Tirosh and Graeber (1990a) reported that only 6 spontaneously recognized a contradiction, and 7 more recognized a contradiction only after multiple, simple prompts. Third, one-on-one interviews lasted 35 to 50 minutes, and they were undertaken only in the context of division. Extrapolated to include the other arithmetic operations, such an

intervention could rapidly become prohibitively labor-intensive, so conflict teaching is probably not an intervention that has wide-spread efficacy for teacher education programs.

An alternative approach, one still derived from Piaget's constructivism views conceptual knowledge as originating in the inventive activities of the learner, through actions on objects rather than from sensory impression or social transmission derived from teachers and parents (see Piaget, 1970, 1974). Following this reasoning, arithmetic misconceptions can be understood as inventions and meanings that reflect incomplete or partially adapted knowledge.

The widespread and well-documented arithmetic misconceptions among preservice education majors suggests common but incomplete school experiences spent learning arithmetic with, about, and through **symbols**. What we are suggesting here is that some misconceptions may originate and persist because they depend purely on symbols. Moreover, simple misconceptions learned in elementary school (e.g., addition and multiplication make larger; subtraction and division make smaller) may produce conceptual misunderstandings that seldom get corrected in more complex mathematics classes because even when symbolic answers are accurately computed, the *meaning* of a solution is seldom provided or even sought (Green, Piel, & Flowers, 2008).

Some support for this line of reasoning derives from Tirosh and Graeber (1990a), who have suggested that a standard algorithm may itself be the source and continuing support for an underlying misconception. In this sense, a misconception may originate in a conceptual limitation of abstract number symbols. That is, when numerals instead of objects undergo arithmetic manipulations, as is typical in elementary school classrooms, it is easy to see how inappropriate conclusions could be drawn *as a function of the numerals used rather than the values they represent*.

Consider, for example, the division basic fact $8 \div 4 = 2$. If asked to draw a picture of the solution "2," most people will draw two things because they think the numeral 2 must stand for objects. Such thinking, however, can only occur if six "things" got lost in the computation. While two is the correct answer, it doesn't stand for two things; it refers to two **sets** of things (or inversely, $2 \times 4 = 8$). The division misconception is simply emblematic of what also occurs with misunderstandings about the other operations.

Our primary focus pedagogically is on performing "actions on objects" using a hierarchy of manipulatives. In this sense, our treatment might be called *guided constructivism* (see Green, Piel, & Flowers, 2008). Students are guided in building an appropriate concrete model and then guided in (shown) how to use the model to perform actions embedded in problem situations. Because our focus is "action on objects," we teach "action language" that describes an arithmetic arrangement to be performed for any real-world problem. With "guided constructivism," students are taught how to coordinate "manipulatives" as tools of action that can later be internalized into mental actions on objects.

Our notion of "guided constructivism" is similar to Freudenthal's (1991) "guided reinvention" or guided reconstruction. Our intent is to guide students through a hierarchy of manipulatives that represent increasingly abstract objects – from concrete to representational to transitional to symbolic – by using manipulatives as tools for examining, constructing, seeing, and testing the performance of arithmetic operations and studying their interrelationships. Guided constructivism begins with problems to solve, invokes the use of manipulatives as "tools" for problem solving, and relies on the invention of personal meanings as the basis for understanding and sense making.

For purposes of the study reported here, we hypothesized that classroom instruction using concrete and representational manipulatives with preservice teachers would produce: (a) a decrease in arithmetic misconceptions (invalid knowledge), (b) a corresponding increase in correct knowledge, and (c) long-term changes that would last well past an intervention posttest.

METHOD

Participants

Participants were 34 undergraduate volunteers enrolled in three sections of a child development course taught by the first two authors. The child development course is a first-semester junior year requirement for elementary education majors at a large, NCATE-accredited state university in the southeast. Most of the subjects were female (88.7%), with an average age of 26.12 years ($SD=7.88$).

Treatment

To illustrate how constructivism can be applied to the elementary classroom, the instructors used abbreviated lessons with concrete and representational manipulatives adapted from their mathematics education class. The lessons covered four classes of a 30-class semester. All instruction was class-, rather than individual-, oriented. The content of these classes consisted of using manipulatives to solve a problem posed by the instructor. Problems dealt with all four operations for whole numbers and for fractions. Students were asked to compare their solutions, and the instructor demonstrated solutions with overhead manipulatives or whiteboard illustrations.

An important component of our “guided constructivism” was introducing students to and practicing “action language” for the arithmetic operations so they could see that the four operations were simply different ways of arranging objects:

Addition	“joined with”	(+)	3 <u>joined with</u> 4 is what?
Multiplication	“sets of”	(x)	2 <u>sets of</u> 3 is what?
Subtraction	“take away”	(-)	9 <u>take away</u> 4 is what?
Division	“grouped into”	(÷)	8 <u>grouped into</u> sets of 2 how many times?
		(÷)	8 <u>grouped into</u> 2 sets, with how many in each set?

All problem situations generated open number sentences that were phrased and modeled using this action language, and connections between actions were explicitly made between operations on whole numbers and operations on fractions.

Instrumentation

A Math Survey was developed to measure arithmetic knowledge and misconceptions using the same set of 15 items. To accomplish this, each item had four possible choices: a correct knowledge answer, a typical misconception, and two distracters (referentially illogical). The items measured understanding of operations on whole numbers and fractions, the meaning of the “=” sign, algorithmic procedures, positional meanings in open number sentences, and conceptual understanding of computing algorithms.

Two scales were calculated from the Math Survey items: Misconception and Knowledge. Fifteen of the items were used to calculate the Misconception scale. The Misconception scale was the percent of misconception options a participant selected across the 15 items (Cronbach’s alpha of .87) and resulted in scores ranging from 0% to 100%. The Knowledge scale was calculated from the percent of correct responses based to the Math Survey items (Cronbach’s alpha of .88).

At the end of the Math Survey, students completed an additional sheet showing a division of fractions exercise: $1\frac{1}{2} \div \frac{3}{4} = ?$. Directions on the sheet prompted students (a) to show the actual computation of a correct solution and then (b) to draw a picture of their solution to show what it means. For the picture, they were instructed “Imagine that the problem above is about pizzas. Draw a picture showing how your solution would look in terms of pizzas (label any elements for clarity).”

Pictorial representations were scored on a four-point scale: 1 = no representation, 2 = inappropriate representation of wrong answer, 3 = inappropriate representation of two objects, and 4 = appropriate representation of two **sets of three-fourths**. The Math Survey and division of fractions problem took students between 8 and 20 minutes to complete.

RESULTS

Thirty-four participants completed all three measures. Screening of the data indicated that there were no outliers, and the distribution appeared normal. The means and standard deviations are reported in Table 1. Figure 1 displays a graphical representation of the average percent correct for knowledge and myth (misconceptions) across the three time periods.

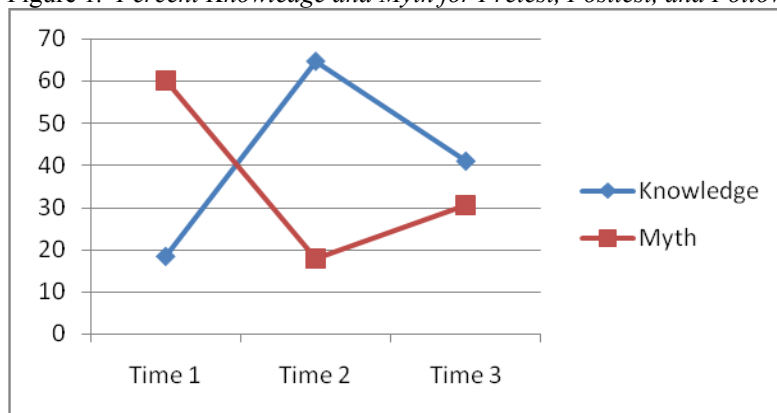
Two one-way ANOVAs were used to examine differences between knowledge and misconception scales across the three time periods. There was a statistically significant within subjects effect for the knowledge score, $F(2, 66)=89.12, p<.001$. The follow-up comparison indicated that the posttest (the course-end measurement) was significantly higher than the pretest (before intervention), suggesting that the intervention increased students' knowledge. There was also a statistically significant difference between pretest and follow up (18 months after course end, during student teaching semester), indicating that students had significantly more accurate arithmetic knowledge 18 months after the intervention than before it began. There was a significant decrease in knowledge accuracy between the posttest and the follow up.

Table 1. *Percent Correct Means and Standard Deviations for Knowledge and Myth Scales*

	<u>Pretest</u>		<u>Posttest</u>		<u>18 Month Follow Up</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Knowledge	18.33	9.11	64.52	17.79	40.88	16.22
Myth	60.20	11.47	17.84	13.66	30.64	12.92

There was also a statistically significant within subjects effect for the misconception or myth score, $F(2, 66)=149.72, p<.001$. Post hoc comparisons showed a significant decrease in misconceptions between pretest and posttest (the course-end measurement), suggesting that the intervention decreased students' myth scores. There was also a statistically significant difference between pretest and follow up (during student teaching) myths, indicating that students had a lower myth score three semesters after the intervention than before it began. At the same time, follow up myths were significantly higher than at the posttest, which suggests how resistant to extinction arithmetic myths are.

Figure 1. *Percent Knowledge and Myth for Pretest, Posttest, and Follow Up*



DISCUSSION

The findings of the longitudinal study reported here are both statistically and educationally significant. They suggest that a relatively modest investment of instructional time that includes appropriate manipulative-based problem solving can produce powerful educational benefits for preservice elementary teachers that are maintained over an 18 month period. The primary focus of this study was to assess the hypothesis that short-term arithmetic instruction using hands-on manipulatives and observations of instructor activities with manipulatives could effectively reverse arithmetic misconceptions and that these reversals could be maintained over time with no follow-

up instruction. It is also important to note that corresponding improvement in arithmetic understanding is necessary in maintaining the drop in misconceptions.

This longitudinal study is important for third reasons. First, it is clear that arithmetic *misconceptions* reported by Tirosh and Graeber (1989, 1990a, 1990b) can be systematically ameliorated through the use of whole class instruction using manipulative materials, and these improvements can be maintained over an 18 month time period with no follow-up instruction.

Second, mathematics *knowledge* can also be improved and maintained through the use of the same approach. However, the significant improvements in both misconception and knowledge did exhibit some decay between the posttest and the follow up testing. Misconceptions may be partly remedied, but it is better to prevent them in the first place.

Third, this longitudinal study reliably demonstrates that the same activities used to reverse misconceptions and improve the accuracy and depth of arithmetic knowledge produce significant changes that endure over time. Recall, for example, that students were initially asked to illustrate their solution to $1\frac{1}{2} \div \frac{3}{4} = ?$ In the pretest 18 months earlier, the most frequent illustration showed either two whole pizzas or two pieces of pizza (instead of two sets of $\frac{3}{4}$ pizza, the correct answer). However, after 18 months, students maintained their understanding that the computed solution “2” represents two of $\frac{3}{4}$ ’s of a pizza.

If knowledge can be constructed, then it can be re-constructed. The key issue is, how can mathematic educators effectively teach education undergraduates in re-constructing more meaningful and accurate understandings of arithmetic concepts? The study reported here shows that gains achieved through a cost- and time-effective strategy are substantially maintained over time. While a portion of these gains were given back in the follow up, students clearly benefited in comparison to their pretest performance. In short they knew more about arithmetic, had fewer misconceptions about arithmetic, and would therefore pass fewer misconceptions on to their students. The trouble with misconceptions is that people don’t even know they have them, and because of this, misconceptions may get perpetuated in the classroom. Mathematics educators have a responsibility to engender in teachers a “deep understanding” of arithmetic – its patterns, functions, and meanings (NCTM, 2000). The study described here suggests that there are direct, pragmatic, reliable and effective means of providing mathematical experiences for preservice education teachers that reduce misconceptions and increase knowledge. In short, it doesn’t take long to reduce misconceptions *and* increase knowledge using manipulatives.

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STUDENT MEDIATING VARIABLES AND SEVENTH GRADE SCIENCE ACCOUNTABILITY CONTROLLING FOR DEMOGRAPHIC FACTORS: INDIVIDUAL AND SCHOOL LEVEL RESULTS FROM KENTUCKY

Larry S. Ennis

Lindsey Wilson College

Stephen K. Miller

Western Kentucky University

D. Clayton Smith

Western Kentucky University

ABSTRACT

Virtually no work exists on student self constructs in the standards-based accountability movement. This study addresses that gap. Based on seventh grade results from Kentucky, relationships among demographic factors, Self-Concept of Science Ability, Effort in Science, and science achievement were investigated. The database includes students ($N = 49267$ for 1997-1998) and schools ($N = 333$ for 1994-1998 Accountability Cycle 3), examined separately. Descriptives and multiple regressions were computed. For student level, the self constructs produced Adjusted R^2 of .033 for science scores. Entering demographics first, hierarchical regression explained 9.4% of the variance. At school level, the self constructs produced Adjusted R^2 of .038 for percentage change scores in science. School level hierarchical regression explained 4.3% of the variance. These results likely understate the influence of student self constructs in accountability testing because of the loss of significant student level population due to measurement error for free/reduced lunch status.

INTRODUCTION

Student self constructs (self-concept, self-efficacy, motivation, etc.) have an effect on school performance (Pajares, 1996; Wittrock, 1986). It is therefore striking that the accountability movement, which currently dominates school reform efforts, is virtually silent on the internalized cognitions and emotions of students, ultimately the most important role group in the quest to improve learning.

This omission stems in part from the political struggle that frames the standards-based accountability movement (cf. Bracey, 2004; Berliner & Biddle, 1995; McDermott, 2007). The contrasting positions are often portrayed in moral terms (McDermott) with conservatives railing against teacher unions and the entrenched educational bureaucracy while liberals focus primarily on the widespread effects of poverty and basic societal inequalities. Resulting policies focus on the actions and responsibilities of the adult protagonists with the unstated presumption that if the quality of teachers or whatever other favorite prescription is improved sufficiently, then student achievement will necessarily improve.

Politics are not the only reason for this simplistic model (leaving students out of the equation). More pragmatically, accountability research tends to be large scale. Outcomes utilized typically represent either state performance assessments or some type of data available nationally. Independent variables are essentially limited to demographic controls (e.g., Lyons, 2004). Neither instructional quality nor student self constructs are typically collected for such analyses because of time and cost.

PURPOSE

This study examines the effects of students' psychological processing on middle school science accountability outcomes for both student and school level analyses. This is significant because science is seldom investigated and fares poorly compared to other subjects (Petrosko, 2000; Poggio, 2000), middle schools lag behind elementary and high schools (Kentucky Department of Education, 2000; Southern Regional Education Board, 1999), the Kentucky Education Reform Act of 1990 (KERA) represented a radical break from traditional education and is generally recognized as the most extensive reform package among all states (Petrosko), and studies rarely examine both individual and school level outcomes (cf. Miller, Smith, & Ennis, 2006). The research question reflects the purpose of the study: For both student level and school level analyses, what is the effect of the mediating constructs--Self-

Concept of Science Ability and Effort in Science--on science achievement, controlling for demographic variables?

METHODS

This quantitative report examines the relationship between demographic factors, mediating variables (student self constructs), and science accountability scores for Kentucky middle schools (seventh grade). Part of a larger study by L. S. Ennis (2002), the secondary data file was obtained from the Kentucky Department of Education (1998a, 1998b). Data for students ($N = 49267$ for 1997-1998) and schools ($N = 333$ for 1994-1998 Accountability Cycle 3) were analyzed separately.

Student and School Level Control Variables

Non-alterable demographic factors (Bloom, 1980) are the control variables for this study. For the student level analysis, each variable is identified for a given student.

Gender (GENDER): Self-report during KIRIS assessment, coded as Male = 0; Female = 1.

Race/ethnicity (RACE): From KIRIS assessment, five self-reported racial designations were collapsed to Nonwhite = 0; White = 1.

Free/reduced Lunch (FRERED): Self-reported during KIRIS, coded as Not Receiving Assistance = 0; Receiving assistance = 1. However, Smith, Neff, and Nemes (1999) discovered that students at some schools drastically under-reported their Title I status. To limit this inaccuracy, official school-reported percentage free and reduced price data were compared to student self-reported figures. If these two percentages were within 5% of one another, the self-report data were considered accurate. At the seventh grade, less than 50% met this criterion. This drops the population size from $N = 49267$ to $N = 20989$. These restricted numbers are used when reporting both the descriptive statistics and the regression analysis for the student level results. This procedure, while ensuring accuracy, has the potential to understate effect sizes; Tabachnick and Fidell (2000) note that any reduction of the population by more than 5% can be problematic. Here this would occur disproportionately in schools with higher poverty rates.

Region (REG): Dummy coded by attendance region (1-8), as established under KERA for instructional support. Region 8 (Southeastern Kentucky counties) is the comparison category.

For the school level analyses, the student level demographic factors were aggregated for each school unit (seventh grade). Data from the four years of the Accountability Cycle were averaged unless otherwise noted.

Gender (SCHGENDER): Percentage of female participants, obtained from the Kentucky Performance Report (KPR).

Race/ethnicity (SCHRACE): Percentage of white students, taken from KPR.

Free/reduced Lunch (SCHCOMBINED): Percent of students on free lunch added to percent on reduced price, obtained from validated KDE data for 1997 and 1998.

Region (SCHREG): The dummy codes for individual students were aggregated at the school level within each of the eight attendance regions, with Region 8 as comparison.

Mediating Variables

The mediating variables of concern in this study represent student self constructs. A mediating factor is generally considered to represent an internal state of the agent who generates an outcome variable such as a test score, thus intervening between a prior independent variable and the dependent variable. Two questions considered to reflect these internal processes were posed to the seventh graders as part of the KIRIS science test.

Student Self-Concept of Science Ability (SSCSA): "How well do you think you did on the science part of the test?" There were four responses: (a) I did very poorly; (b) I did poorly; (c) I did well; and (d) I did very well. Answers were translated into a 4-point interval scale (4 high).

Student Effort in Science (SES): "How hard did you try on the science part of the test?" Students had four choices: (a) I did not try; (b) I tried a little; (c) I tried a lot; and (d) I tried very hard. Responses were converted into a 4-point interval scale (4 high).

For the student level analysis, responses to these two mediating variables were identified at the level of the individual. This allows matching the student's response to his/her demographic background and science achievement.

The same constructs were utilized for the school level analysis. Here, however, both mediating variables were aggregated to the overall school level (7th grade) to examine whether patterns exist from school to school. School

Self-Concept of Science Ability and School Effort in Science were coded as SCHSCSA and SCHES, respectively.

Dependent Variable

The dependent variable for the study, science achievement, is measured at both the individual and the school level. The absolute grade seven science achievement test (SCIENCE) score for the 1997-98 school year is the individual student level criterion. Results for the Science Index are reported based on four categories--Novice, Apprentice, Proficient, and Distinguished--on a 140-point scale. Both students and schools are expected to reach Proficient (a score of 100) by 2014. This is a very demanding standard, pegged to the National Assessment of Educational Progress (cf. Petrosko, 2000; Rothstein, 2004).

For the school level, the dependent variable is the percent of change in science achievement test scores (%CHANGE) for the seventh grade for Accountability Cycle 3 (1994-1998), computed from the aggregate school scores on the Science Index.

Regression Model

After computing the descriptive statistics for both student and school levels, multiple regressions were conducted to answer the research question. Because there are two levels of dependent variables, separate multiple regression analyses were necessary. Multivariate regression was deemed inappropriate because the two dependent variables, both based on KIRIS test results, were incompatible both logistically and conceptually. Thus the calculations were run at the student level and the grade level. First, simultaneous regression was utilized to find the direct effect of the mediating variables (the student self constructs) on science achievement. Subsequently, hierarchical regressions controlled for the demographic factors prior to entering these same mediating variables (Tabachnick & Fidell, 2000).

A note on inferential statistics is necessary here. For inferential procedures, relationships that exist in sample statistics are the basis of parameter estimates for the full population. The current study, however, is based on the entire population of seventh graders rather than sample data. Differences among variables are typically compared directly for populations. However, multiple regression represents the best technique for estimating extant relationships within a population and the Kentucky Department of Education routinely analyzes statewide data this way.

RESULTS

The analyses included descriptive statistics for the demographic factors, mediating self constructs, and the criterion, science achievement. Multiple regressions, both simultaneous and hierarchical, were computed to estimate relationships among the variables. The work for student level and school level is presented in turn. Only the regressions are reported here due to restrictions on space. Other tables are available in L. S. Ennis (2002).

Table 1. *Regression of Student Science Achievement on the Mediating Variables (N = 21960)*

Variable	B	SE B	Beta	t	Sig t
SSCSA	2.312	0.225	0.070	10.26	< 0.0001
SES	4.937	0.221	0.152	22.32	< 0.0001

Table 1 presents the regression of student level science achievement on the two mediating variables. Although both are significant, the Adjusted R^2 is quite small (.033). The standardized regression coefficients indicate that Effort in Science has the greater influence (beta = .152). Table 2 gives the hierarchical regression for student science scores. Here, the demographic factors are entered in Step 1, with the mediating variables in Step 2. The total variance explained increases to 9.4%, still a small effect. With the prior influence of the control factors, the mediating variables have a slightly reduced effect.

Table 2. *Regression of Student Science Achievement on the Mediating Variables Controlling for the Demographic Variables (N = 21960)*

Variable	B	SE B	Beta	t	Sig t
Step 1					

FRERED	-6.972	0.478	-0.122	-14.57	< 0.0001
RACE (W)	11.159	0.474	0.161	23.55	< 0.0001
GENDER (F)	3.224	0.270	0.077	11.94	< 0.0001
REG 1	0.486	0.737	0.007	0.66	0.5096
REG 2	4.265	0.699	0.070	6.10	< 0.0001
REG 3	-0.602	0.671	-0.011	-0.90	0.3698
REG 4	3.322	0.689	0.058	4.82	< 0.0001
REG 5	3.629	0.676	0.069	5.37	< 0.0001
REG 6	-0.445	0.625	-0.007	-0.71	0.4766
REG 7	-0.348	0.921	-0.003	-0.38	0.7055
Step 2					
SSCSA	2.421	0.221	0.073	10.94	< 0.0001
SES	4.326	0.217	0.133	19.95	< 0.0001
FRERED	-7.272	0.478	-0.128	-15.21	< 0.0001
RACE (W)	10.153	0.478	0.145	21.23	< 0.0001
GENDER (F)	3.064	0.274	0.073	11.16	< 0.0001
REG 1	0.400	0.732	0.006	0.55	0.5847
REG 2	3.888	0.695	0.064	5.60	< 0.0001
REG 3	-0.162	0.671	-0.003	-0.24	0.8097
REG 4	3.543	0.688	0.062	5.15	< 0.0001
REG 5	3.506	0.674	0.066	5.20	< 0.0001
REG 6	-0.202	0.620	-0.003	-0.33	0.7439
REG 7	0.084	0.915	-0.001	0.09	0.9268

Adjusted R^2 = .0680 for Step 1; the change of Adjusted R^2 = .0256 for Step 2.

The percentage change in school level science is regressed on the mediating variables in Table 3. As was the case for the student level regression, the effect size is very small (3.8% variance explained); the standardized coefficients at the school level are very similar. In Table 4, the hierarchical regression demonstrates that there is essentially no influence from the demographic factors at the school level; the total variance explained increases only to 4.3%, and that appears to be associated with the self constructs, not the controls.

Table 3. *Regression of Percent Change Scores in Science on the Mediating Variables at the School Level (N = 254)*

Variable	B	SE B	Beta	t	Sig t
SCHSCSA	33.344	16.719	0.132	1.99	0.0472
SCHES	34.684	18.309	0.126	1.89	0.0593

DISCUSSION

The results described above almost certainly underestimate the influence of student self constructs in accountability testing due to several limitations of the current study. These include, first, a very narrow conceptualization of the mediating variables. Because of concern over student effort during accountability testing, the Kentucky Department of Education focused the self-questions on the test itself rather than science generally and limited the constructs to single items. Second, both student measures yielded ceiling effects (data not shown) with concomitant lower effect size (restriction of range). Third, more than 50% of the population at the student level could not be used due to measurement error on the self-reported free/reduced lunch status. That in turn led to a restriction of range in socioeconomic status as a high proportion of students lost would have been from low income Title I schools.

Table 4. *Regression of Percent Change Scores in Science on the Mediating Variables Controlling for the Demographic Variables at the School Level (N = 254)*

Variable	B	SE B	Beta	t	Sig t
Step 1					
SCHCOMBINED	-0.034	0.094	-0.030	-0.36	0.7182
SCHRACE	0.099	0.191	0.045	0.52	0.6052
SCHGENDER	-0.309	0.324	-0.061	-0.96	0.3404
SCHREG 1	5.497	7.215	0.069	0.76	0.4468
SCHREG 2	12.654	7.433	0.145	1.70	0.0900
SCHREG 3	10.274	10.194	0.092	1.01	0.3145
SCHREG 4	7.526	7.573	0.078	0.99	0.3214
SCHREG 5	-2.191	7.432	-0.027	-0.29	0.7684
SCHREG 6	-1.225	5.203	-0.018	-0.24	0.8141
SCHREG 7	2.104	6.719	0.023	0.31	0.7544
Step 2					
SCHSCSA	13.682	18.085	0.054	0.76	0.4501
SCHES	60.835	21.934	0.220	2.77	0.0060
SCHCOMBINED	-0.003	0.092	-0.003	-0.03	0.9721
SCHRACE (W)	-0.048	0.193	-0.022	-0.25	0.8043
SCHGENDER (F)	-0.430	0.329	-0.085	-1.31	0.1929
SCHREG 1	8.553	7.327	0.108	1.17	0.2442
SCHREG 2	14.673	7.454	0.168	1.97	0.0502
SCHREG 3	14.108	10.096	0.126	1.40	0.1636
SCHREG 4	11.484	7.719	0.120	1.49	0.1381
SCHREG 5	2.742	7.494	0.034	0.37	0.7147
SCHREG 6	2.257	5.240	0.033	0.43	0.6671
SCHREG 7	5.930	6.708	0.066	0.88	0.3775

Adjusted R^2 = -.0004 for Step 1; the change of Adjusted R^2 = .0435 for Step 2.

The results presented here have demonstrated the viability of collecting data on student self constructs during statewide accountability assessments. Future research should include the development of better measures of student self processing, i.e., multiple-items constructs focused on science generally rather than just the test. In addition, better measures of socioeconomic status are imperative. Further, recent evidence from Kentucky indicates that a broader set of demographic variables would be more efficacious (B. C. Ennis, 2007; Lyons, 2004). With improved indicators of the student mediating variables and socio-demographic factors, it will be possible to ascertain a more realistic picture of the effects of student mediating variables on accountability outcomes.

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EXPERIENCING SCIENCE THROUGH ENRICHMENT: THINK, THINK, THINK!

Burnette Wolf Hamil
Mississippi State University

Denise Richardson
Bluefield State College

ABSTRACT

Success in science teaching relies on many attributes. Some teaching characteristics work for some teachers but may not work for all teachers. Not all of the same characteristics may be seen in all great science teachers. What works in one teaching situation, may or may not work in a different classroom environment. Qualities such as leadership, personality, commitment, communication, and desire to teach may lead to student successes in the science classroom. Enrichment activities allow for experiences that contribute to learning in the science classroom. Each individual is unique and each must develop their own teaching style so that creative enriched science activities will foster increased interest and learning in science classes. Thinking is essential in science teaching to allow creativity.

INTRODUCTION

Research in science teaching is constantly underway. Findings are constantly written and reported. How does one know which great finding or idea will be meaningful in successful science teaching in another individual setting? How can one be assured that the latest finding will actually work into the existing plan of science teaching or that science curriculum changes or ideas from other research will lead to greater student understanding that will eventually increase learning outcomes? These questions are relevant in dealing with any research or ideas that show up in educational settings. Learning how to determine what is compatible for each learning situation is key to success in teaching and learning as it relates to any content area.

RESEARCH INVOLVING LEARNING

Keeping up with the latest information involving learning is not always possible. However, it is important to keep up with as much as is possible. Some articles compile information for ease of reading findings of previously reported research (Christie, 2006) involving learning.

While thinking about research in science teaching, education and learning in general have to be considered. Many qualities necessary in teaching science are necessary for teachers in general. Learning is one of the purposes of school (Ryan & Cooper, 2004) and is generally looked at as the main purpose but other purposes such as civic responsibility, preparation for the future, and being able to succeed in society are considered important in teaching students. Incorporating these in science classes can be creatively accomplished.

In civic responsibility, science knowledge is important so that students can understand the safety involved in an issue like nuclear power. If students don't understand how many safety regulations are involved in the building and operation of a nuclear power plant, they may not understand the overall issue of nuclear power. They may not understand how efficient nuclear power is or how much power is generated presently from nuclear power. They may not understand that nuclear power plants have operated for many years at a very efficient rate (Nuclear Energy Institute, 2009).

CONCEPT OF SCHOOL

The concept of school being the place of preparation for the future means that students must learn to think for themselves and become decision-makers. Using science news reports is one way to bring real-world experiences to discussion (Jarman & McClune, 2007). Science issues in the news, such as artificial sweeteners or bottled water can facilitate inquiry which relates to decision-making for the future health of the individual. Health issues can cause societal consequences. Ebenezer & Conner (2005) believe that inquiry must take place in a social setting; hence, success in society is intertwined with a number of issues, just as teaching in a science classroom with many

activities taking place at the same time can lead to a great science class or total non-learning. Much activity in a science classroom or in any classroom can be quite confusing or frustrating if classroom management is not properly conducted. Additionally, science achievement must be guided by the National Science Education Standards (National Research Council, 1996). Keeping all of this coordinated does keep the science teacher busy!

CONCEPT OF REFLECTION

While coordinating the science students in activities that will, hopefully, lead to successful achievement, another important concept is essential. The concept of reflection (Ryan & Cooper, 2004) is considered important to those considering the teaching profession or to those already teaching science. In order to improve, or better still survive, in the science classroom, the science teacher must constantly reflect on the lesson presented. Did the lesson proceed as planned? Can the lesson be improved? Did the allotted time match the actual time needed to complete the lesson? Was enough material available to cover all of the class period? Were the enrichment activities sufficient for the students who finish early?

Teaching itself relies on the ability to manage many aspects of the classroom happening all at the same time. Prior experiences that have occurred in the student's life will help determine the reactions that take place in the classroom and in life in general.

PRIOR EXPERIENCES

Prior experiences that students have encountered in classrooms with science teachers may affect the way these students will eventually teach science when they become teachers. This modeling along with other aspects such as personality, communication, and desire for teaching may affect how a teacher teaches (Polk, 2006). The exact characteristics of personality that great teachers possess have been elusive (Young, 2009). People are different and the personalities of excellent teachers vary. Just as classes differ, so do the teachers who teach them. It has been said that people with good personalities make good teachers but defining good personality is not easily accomplished. We all wish for classes filled with students who want to study science but this does not always happen. Regardless, teachers who desire to teach science will strive to succeed in the classroom.

CONTENT BACKGROUND

Does the desire for teaching make an individual want to be an excellent teacher? McElroy (2005) believes that the education teachers receive should include a strong content background and should be based on research as well as "experiences of our members" (p. 8). Dill (1990) stressed the importance of research in both content and pedagogy. Additionally, he felt that professional development for teachers could increase student achievement.

TEACHING EFFECTIVENESS

Student achievement is one way in which effectiveness of teaching is measured. The question arises then as to how to measure student achievement. Is it possible to measure teaching effectiveness by student achievement? Many factors affect student achievement. Ding & Sherman (2006) compare teaching effectiveness to a physician/patient relationship. While a physician is not totally responsible for a person's health, a teacher cannot be totally responsible for student achievement. Lord (2008) points out the need for "student-centered teaching" (p. 68) at the university level to interest students in science. Teacher shortages exist in the sciences so teachers who teach science at any level need to be enthusiastic and creative so more future teachers will be attracted to science education.

Attracting talented science students to education requires committed science education leaders. Leadership is important in education (Young, 2009). It is important for the future of science education in the teaching profession. At a recent Phi Delta Kappa Leadership Summit, attendees constructed a list of 16 characteristics that are often seen in successful teachers. Some of these include flexibility, cooperativeness, eagerness for increased knowledge, passionate facilitator, and inspirational encourager (Young, 2009). These characteristics have been witnessed in many successful science teachers and they must be stressed in continued education of future science teachers.

CONCLUSION

Keeping in mind all of the aforementioned characteristics, it is also important to accentuate the uniqueness of all individuals. Because no two individuals are exactly alike, it must be stressed that one teacher cannot teach exactly like any other teacher. While former experiences mold and shape our actions, we are all different just as our classrooms are made up of uniquely different students. Each teacher must enrich their own classroom so that it, too, is unique. Creativity must be allowed in teaching so that variety can continue to make science interesting with enrichment.

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CREATING A CULTURALLY RESPONSIVE CLASSROOM FOR NON-NATIVE ENGLISH SPEAKING STUDENTS IN NON-LINGUISTIC MAJORS

Melinda Haley

University of Texas at El Paso

ABSTRACT

This article discusses the issues of non-native English speaking students within English speaking US colleges and universities, particularly those within majors that are non-linguistically or foreign language oriented (e.g., science, math, education). This article uses current research and theory to give suggestions for creating a culturally responsive classroom for students who are learning English as a second language. These suggested interventions are empirically supported and intended to facilitate learning for these students within their various majors.

INTRODUCTION

There are more students in US colleges and universities who are non-native English speakers than ever before in history (Part-Taylor, Walsh, & Ventura, 2007). Currently it is estimated that there are 28.4 – 31.1 million foreign born individuals within the US, which is a 57% increase over the 1990 census (Drucker, 2003; Gunde, 2003). It is also estimated that by the year 2050 there will be a 213% increase in the general US population for Asian Americans, a 188% increase for Hispanic Americans and a 71% population increase for African Americans (U.S. Census Bureau, 2004). According to the 2000 census, 34% of college students residing within the US had a first language that was other than English (U.S. Census Bureau, 2000a). This figure includes both foreign-born students and those who were born in the US, but who were not English speaking in their homes, such as those living on the US/Mexico border (Malia, 2006). If this trend continues as anticipated the number of college students in the US whose first language is not English can be expected to increase exponentially.

In perusing the literature of many academic domains including early childhood education, nursing, teacher and physical education, adult literacy, multiculturalism, linguistics, and English as a second language we see a variety of definitions for students who are second language learners. This author prefers the acronym of L2 and this definition will be used throughout this paper. The L2 status as defined in this paper designates students who are non-native English speakers and who are learning English as their second language. It also denotes those who have some degree of English literacy, but who are not completely bilingual in their English language acquisition and linguistic ability.

The English speaking abilities of non-natives will differ from student to student and within different families. For example, among Spanish speaking people in the US, 28.3% have minimal English speaking skills or cannot speak English at all. For people who speak an Indo-European language 13% have minimal English speaking skills or cannot speak English, and for those who speak an Asian or Pacific Island language, the percentage is 22.5% (U.S. Census Bureau, 2002b). Due to the large number of students in US colleges and universities who are not native-English speakers, linguistic sensitivity in the classroom is needed to help address the various needs of these students.

The primary language of US college students is an important cultural variable that is largely overlooked by many US educational programs. The purpose of this article is to highlight this issue and offer a research-based rationale for why instructor intervention can increase the success of students who are not native-English speakers within US classrooms. This article offers a myriad of empirically based suggestions for instructors who want to incorporate linguistic sensitivity into their classrooms.

SUGGESTIONS FOR CREATING A CULTURALLY SENSITIVE CLASSROOM

A literature review from the above-mentioned disciplines yielded a number of suggestions for working with second language learners that can be adapted for other US educational programs and majors. The issues discussed will pertain to creating a culturally fair grading and learning environment for these non-native English-speaking students.

Creating A Culturally Fair Grading Environment

First and foremost, instructors need to develop knowledge of L2 learning and language acquisition (Commins & Miramontes, 2006). Research indicates as many as 75% of L2 students are in classrooms with instructors who lack training or knowledge in second language acquisition (Curtin, 2005). Language acquisition is a process that is individualized and L2 students may develop at different rates.

Some adult L2 learners may never completely achieve English language acquisition (Montrul, Foote, & Perpinan, 2008). These students may be able to express some concepts in English, but may need to express others in their native language. There may also be certain features of the second language that will be difficult for the adult learner to master depending upon the age at which they first began to acquire English. Research indicates that mastering a second language is age-dependent in that it is easier to learn the younger that one begins. According to Esau & Keene (1981) this age is around the onset of puberty.

The challenge for many L2 learners is that they not only have to learn new words in a new language, but they must also master the concepts and ways to express those concepts, so that they are understood (Brown, 2007; Haneda, 2008). Instructors who are either native English speakers, or completely bilingual, may forget that language is a culture that needs to be navigated (Hagan, 2004). Commins and Miramontes (2006) suggest that instructors ask themselves “what are the features of language that students need to understand and be able to use to accomplish this activity successfully? (p. 244)” This is important, because errors in communication can not only cause a lack of understanding, but can cause misunderstanding, which is detrimental to L2 student learning (Beaman, 1994; Sandhu, Reeves, & Portes, 1993).

Instructors should know the language backgrounds of their students (Beaman, 1994; Commins & Miramontes, 2006). Research suggests that the instructor having cultural knowledge of the student can lead to enhanced educational experiences for these students (Curtin, 2005). Different languages have different rules and students are apt to make errors in English common to their native language rules. For example, native Spanish speaking students may place the adjective after a noun (e.g., car red) instead of before it as indicated in English (e.g., red car). These common differences between languages should be viewed as a cultural variable, not simply as an English grammatical error. Therefore while these grammatical errors should not be counted against the L2 student, instructors should correct these errors, in order to help the student learn the differences between their native language and English more quickly. Instructors can be aided in their education regarding their students’ native languages by consulting faculty in the foreign language departments of their institutions.

Haneda (2008) argues from a sociocultural perspective that teachers are crucial to how much L2 students learn in class regarding content. She states the degree of learning for L2 students is dependent upon the teacher’s awareness of the L2 learner’s needs, how these instructors conceptualize their role in meeting these needs, and the larger environment of the institution as to whether it is supportive or unsupportive. Seungyoun, Butler, and Tippins (2007) posited that treating students fairly does not always mean treating students equally. If we treat culturally diverse students the same as Euro-American learners are we not then discriminating against these students (Commins & Miramontes, 2006). For example, if we grade L2 learners’ papers the same as native English speakers’ papers, are we not then holding a culturally different student to a Euro-American standard? Is the L2 learner not then at a disadvantage?

One issue L2 learners face is that faculty can have a high degree of inconsistency in grading L2 papers due to student errors in grammar and syntax (Schaefer, 2008). There is some indication in the literature that there may be bias toward L2 learners regarding written class work (Schaefer). This may be especially true in academic writing, because academic writing skills take longer for L2’s to learn than verbal English skills (Brown, 2007; Brown, 2008; Seungyoun et al., 2007).

In many cases L2 students’ academic writing does not compare to native English speaking students’ writing ability unless that student is an advanced L2 learner. Therefore, the L2 learner is more likely to make errors that negatively impact his or her grade. Without a rubric pertaining to how an instructor plans to handle the grading of L2 papers, he or she may be inconsistent from one paper to the next.

Rubric for grading. One way of combating potential bias or inconsistency in grading is by using a rubric specifically designed for grading the L2’s written work. A rubric is an instrument used for grading and includes the criteria an instructor will use to grade a paper or assess a skill. The rubric can specify for both students and instructors the criteria regarding grammar, syntax, spelling and so forth. This makes the process more objective and systematic instead of solely subjective and can help minimize biased or inconsistent responses.

It has been suggested that instructors grade written work for L2 learners based on content and not on English grammar, spelling, or syntax. Students can be aided by being encouraged to look at their writing globally (e.g., clarity, organization, focus, referencing statements, proper referencing of sources and so forth) rather than focusing

on English grammar and spelling (Brown, 2007; Malia, 2006). This global focus has been found useful in increasing L2 academic English acquisition and may reduce L2 English language writing errors by reducing anxiety (Brown). It has been noted in the empirical literature that student anxiety regarding grammatical structure can actually impede L2 student English acquisition, which in turn impedes learning and writing success (Liaw, 2007; Malia, 2006).

Timing assignments. Another suggestion is to time assignments so that L2 students have time to process the assignment in both their primary and their secondary languages (Drucker, 2003). Some L2 learners may need to process the assignment in their first language, then translate and process it in English. This takes time. Individuals not only use language to communicate to other individuals, but they also use it to process, think, and explore concepts (Commins & Miramontes, 2006). It can be evident with many L2 students that they are indeed thinking and processing in their native language and then translating this into English.

Creating A Culturally Fair Learning Environment

Creating a culturally fair learning environment can be accomplished by modifying instructional style, lecture content, skill demonstration, and grading criteria to incorporate student cultural dimensions in the classroom, specifically as it relates to language attainment (Seungyoun et al., 2007). All students should have equal access to success. If instructional strategies and classroom climate are based on the needs of Euro-American learners then linguistically different students will not have equal access. Therefore, instructors may need to move out of their comfort zone and differentiate their methods to be more inclusive of L2 learners within their classroom (Commins & Miramontes, 2006).

Improve instructor communication. Instruction in linguistically heterogeneous classrooms can be a challenge because instructors need to be cognizant of how they are expressing their points so that it is comprehensible to a range of student English linguistic skills (Commins & Miramontes, 2006). Instructors need to be mindful of their word choices, rate and rhythm of speech, in providing wait time for students to process information, and using multiple examples to illustrate main points. Instructors need to pause between statements or conceptual points, face the students, give contextual cues if applicable, enunciate their words, model behaviors, and avoid using slang terms or colloquialisms (Brown, 2008; Ching & Chang, 2008; Clancy & Hruska, 2005).

Commins and Miramontes (2006) suggest that instructors “mediate understanding by relating text, visual imagery, and oral instruction about important concepts (p. 245).” Materials that may be helpful in creating visuals to aid in understanding and provide contextual cues are: Whiteboards, diagrams, videos, and PowerPoint’s (Clancy & Hruska, 2005). Instructors should also be sensitive to issues of comprehension and check frequently for student understanding (Brown, 2008).

Clarify Expectations. Instructors need to clarify the US (and regional) expectations for student behaviors/duties in the classroom. Differences may exist in different cultures regarding the perceptions of what a student is/does and how he or she conducts himself or herself in the classroom. It will be important for instructors to make sure each student understands what is expected regarding the dominant culture’s ideas about learning (note: dominant culture can mean the culture of the program, university, or regional expectations and beliefs, as well as Euro-American or dominant US culture). For example, Williams and Butler (2003) note that in some countries students are taught by the rote method and must write down verbatim what the instructor says, whereas in most universities within the US, students summarize the lectures and write down the main points and concepts. It was also noted that the multiple-choice test is mostly a US invention and may be unknown in many L2 learners’ countries of origin.

There may also be differences between cultures on factors pertaining to written class work. For example, there may be differences in sentence structure, essay structure, or other aspects of written communication. Instructors may be well versed in Western or US ways of writing and may not appreciate cultural variations. Therefore, expectations should be made clear (Brown, 2008). Instructors can give L2 students sample papers written by students in previous semesters that demonstrate instructor preferences, which represent the instructor’s idea of a “good” paper.

Clarifying expectations might also include educating native-English speaking students in the classroom regarding issues that affect L2 learners. It is not uncommon in group work for native-English speakers to complain about the quality of written work contributed by L2 learners. Therefore, all students need to be acclimated to the issues impacting L2 learners and expectations for student behavior identified.

Give feedback and positive reinforcement. Instructors need to give genuine feedback and positive reinforcement regarding L2 English skills and how L2 status is impacting content acquisition and performance in the classroom (Casado & Derशिwsky, 2001). Haneda (2008) stated, “It is important to help L2 learners to make

connections between language form and meaning through academically challenging tasks and contingently appropriate feedback” (p. 70). Barnes (2004) posited that positive feedback, both strengths based and corrective, could lead to greater student self-efficacy.

The theory of self-efficacy comes from Bandura’s general social cognitive theory and is becoming an increasingly important consideration in student learning (Lent, Hoffman, Hill, Treistman, Mount, & Singley, 2006). Self-efficacy can be described as a belief that one has the knowledge, ability, or skills to succeed at a given task or behavior and that given behaviors, knowledge, skills, or abilities will lead to positive outcomes (Levitt, 2001). Tang, Addison, LaSure-Bryant, Norman, O’Connell, and Steward-Sicking, (2004) state that perceived self-efficacy is dependent upon skill performance, assessment, and evaluation by the student, peers, and instructors. Instructor appropriate, credible, and positive feedback is especially important when student self-efficacy is low. Such feedback can increase student motivation, self-efficacy, and more realistic self-assessment (Al-Darmaki, 2004; McCabe, 2006).

Brophy (1981) developed guidelines for effective feedback. A summary of these guidelines is that the feedback must be genuine, specific, and must attribute success to the student’s effort. The task must also be sufficiently difficult to generate praise, otherwise the instructor may lose credibility and the feedback and praise will be ineffective and perhaps be further debilitating to the student (McCabe, 2006). In addition, instructor encouragement and assistance in helping students evaluate their language skills in a positive light can help L2 students increase motivation, effort, self-efficacy, and accomplishment (Angell & Bates, 1996; Lent, Hill, & Hoffman, 2003; MacIntyre, Noels, & Clement, 1997).

Use scaffolding and modeling. Vygotsky discussed the theory of the zone of proximal development, which suggests there is a difference between what a student can learn by himself or herself and what he or she can learn with help (Malia, 2006). Instructors can use scaffolding to help students learn more. Scaffolding used in this example is a process where more aid and instruction is given in the beginning of the semester, and as the student begins to master what he or she is attempting to learn, the instructor begins to decrease support and lets the student do more and more of the work on his or her own.

For example, rather than modifying assignments for L2 students Malia (2006) posits that these students need to be challenged with support. One way of helping students learn academic writing is to give them examples of “good” papers that meets the instructor’s standards for the given assignment. In this manner, students can see a model of proper English grammar, sentence structure, academic style and so forth that the instructor expects. As the students begin to master academic writing more of the work can be accomplished without a model to follow. In this way, students may assimilate grammatical rules over time (Liaw, 2007).

L2 students can also be encouraged to turn in rough drafts of their work for instructor feedback as a scaffolding tool. This can be done for each assignment in the beginning of the semester and then taper off as the student begins to improve. Instructors should give the student copious supportive feedback regarding English errors to help them progress.

In addition, instructors can initially give L2 students copies of the instructor notes and PowerPoints as a scaffolding tool. This can help L2 students learn course content and can help remove anxiety regarding having to listen to instruction in English and take notes (Gunde, 2003). If the instructor gives these students the notes prior to the lecture, L2 students can follow along and this can aid in comprehending the material. Students can read these notes prior to class and make notes on content they do not understand. This can help prepare them to ask questions in class.

Honor student culture in the classroom. L2 student learners often live with one foot in two worlds. They may be enmeshed in US English culture in the classroom, but return to their own culture within their homes at night. Instructors can organize lectures and materials to build upon the L2 student’s experiences in both cultures and use this to help him or her develop knowledge, skills, and transference between the student’s native language and English (Commins & Miramontes, 2006; Malia, 2006).

In addition, instructor attitudes can make a profound difference in the learning of L2s. For example, instructors who celebrate diversity and view L2 learners’ linguistic diversity as an asset to the class can create an environment of safety and can enhance L2 learners ability to take risks in class and with class material (Drucker, 2003). Students need to feel valued, understood, and feel that they can succeed (Commins & Miramontes, 2006).

Use group work. Instructors can also create a safe environment for L2 learners by using group work (Casado & Dershiwsky, 2001; Commins & Miramontes, 2006). L2 students need a stress free environment for language performance (Clancy & Hruska, 2005). Instructors can help create this type of environment by utilizing groups composed of heterogeneous language students. This type of group can aid L2 learners with their English acquisition, in understanding concepts, and processing information in the English language.

Examples of this may be to arrange study groups, led by native English-speaking classmates to help L2 students process class content in English and get them out of their monolingualistic comfort zone (Brown, 2008). In addition, students can work in groups to work on research papers or other projects. In this manner, native-English students can serve as “cultural brokers.” A cultural broker is a L2 student’s friend, classmate, instructor, tutor or any other person helping L2 learners understand English-speaking culture (Hagan, 2004).

Students can also participate in what Memmer and Worth (as cited in Gunde, 2003) calls a “conversation laboratory” where students can get help with the English language within the context of their academic major. This can be developed in the form of a support group for students who are not native English speakers (Casado & Dershiwsky, 2001). This can be accomplished in mixed groups of native-English speakers and L2 learners.

L2 students can also gain from participating in a group with other L2 learners (Gunde, 2003). This type of group can also help L2 learners, because it helps reduce their language anxiety and students can learn from each other. Some students will be more advanced in their English language acquisition and less advanced L2 students may feel more comfortable getting feedback from another L2 learner. This type of group can also help L2 learners with aspects of the English language that are not demonstrated by native speakers (Commins & Miramontes, 2006).

A good example of this type of group is to form homogeneous language groups for small in-class group work. Students can process information collectively in these small groups (e.g., discussing issues, class content, reflecting on them as a group, and generating ideas) and then students can rejoin the class for a larger group discussion on the issues or topics (Berlin, 2005). Commins and Miramontes (2006) assert that neither type of group is more effective than the other, but that both are needed to achieve different goals. Therefore, both types should be utilized within a single semester.

Increase instructor cultural awareness. Instructors also need to be aware of, and sensitive to, cultural issues that affect the classroom. For example, Latino students may help each other learn due to their collectivist culture. An unaware US instructor from an individualistic culture might see this as cheating (Thorn & Contreras, 2005). This can lead to another cultural misunderstanding that can thwart the L2 learner’s success. This is also another example of making cultural expectations clear in regard to the dominant culture’s policies for classroom behavior.

Increase instructor self-education. Instructors should educate themselves regarding the cultural differences between themselves and their students. This is particularly important in regard to language. Instructors should become aware of language rules in students’ native language to understand errors students may make in English based upon the syntax of their language of origin. Instructors can be aided in this endeavor by consulting with the language departments at their institution.

Educate L2 learners. Instructors can also help L2 students by educating them regarding campus and community resources (e.g., tutoring, writing labs, social groups, support groups). L2 learners can feel isolated and anxious as they master the nuances of the English language and the discourse of their potential profession. Some have come to the university from their country of origin or from another state. They may feel a lack of support, may have difficulty making friends, and may have different cultural scripts or learning styles that makes it difficult for them to feel like they “fit in” (Schwallie-Giddis, Anstrom, Sanchez, Sardi, & Granato, 2004; Thorn & Contreras, 2005; Williams & Butler, 2003). Since most instructors have a good knowledge of the resources available within their own institution they can be on the front line in assisting L2 students find the support they need.

SUMMARY

As educators we must practice culturally sensitive teaching with students. This includes linguistic diversity. This is an extremely important issue for L2 learners who may not be doing as well in our classrooms if they are in an instructional environment that does not take this cultural variable into consideration. Instructors can do a lot to improve the learning and education of L2 learners within non-linguistically oriented majors. Instructors’ positive attitudes, careful grading, willingness to learn about their students’ native languages, attitudes of acceptance, and modifying their teaching style to incorporate the aforementioned strategies can greatly impact the learning environment of these students and help them succeed in US educational institutions.

References are available upon request.

TEACHING CULTURAL DIVERSITY COUNSELING THROUGH INNOVATIVE STRUCTURED PERSONAL INTERVIEW TECHNIQUES

K. Paul Kasambira
Bradley University

ABSTRACT

People in general especially students, have not had significant experiences in interacting with, and communicating with people from different backgrounds (D'Andrea & Daniels, 1991). Thus, many students may have a significant impediment to overcome in order to open themselves to the cross-cultural experience of their future clients. The purpose of this research is to assist counseling students to improve cross-cultural communication skills that would enable them to use interviewing techniques with individuals from diverse cultures. This approach is open-ended with continual opportunities to refine and enhance students' skills by building on the demonstration videos of previous students. In view of what D'Andrea and Daniels, mentioned above, I felt that a developmental model to help counselor candidates "walk in someone else's moccasins", according to a Sioux Indian proverb, was necessary. The guidelines for this structured personal interview process model have been refined, used and replicated, internationally, by other researchers or educators.

INTRODUCTION

Many students have not had significant experiences in interacting with, and communicating with people from different backgrounds (D'Andrea & Daniels, 1991). Thus, many students may have a significant impediment to overcome in order to open themselves to the cross-cultural experience of their future clients. The purpose of this research is to assist counseling students to improve cross-cultural communication skills that would enable them to use interviewing techniques with individuals from diverse cultures. This approach is open-ended with continual opportunities to refine and enhance skills of students, building on the demonstration videos of previous students.

BACKGROUND

Project Objectives

Specific objectives were identified for this project. They included the following: 1) develop skills in cross-cultural interviewing among counselors, teachers, and others, 2) develop communication skills between and among people from different cultural backgrounds, 3) present opportunities for interviewees to express their concerns as they attempt to adjust to the dominant cultures, 4) provide an arena for dialogue between people from diverse cultures, and 5) develop demonstration videotapes of cross-cultural interviews to be used in a variety of settings where cross-cultural concerns are evident (Kasambira & Rybak, 1996).

Develop Cross-Cultural Interviewing Skills

Evaluating the effectiveness of comprehensive multicultural training courses, D'Andrea, Daniels, and Heck (1991) found, in general, that the courses did help students to increase their levels of multicultural awareness, knowledge and skills. Merta, Stringham, and Ponterotto (1988) described a cross-cultural experience that was processes in a class setting as valuable in increasing counselor sensitivity to other cultural perspectives.

Develop Cross-Cultural Communication

Mack et al. (1997) conducted a study of campus ethnic climate relations and found differences among ethnic group perceptions. Blacks tended to experience the interracial campus climate as hostile while, in general, Whites held a more positive perspective. The study also found that Asians were the least comfortable in cross-cultural situations while Latinos and Whites were the most comfortable.

Expressing Acculturation Concerns

Persons making a transition from a home culture to a less familiar culture experience considerable stress in learning to adapt to alien norms and expectations (Zapf, 1991). Where learning a new language of the host culture is involved, the interview session presents an opportunity for the interviewee to practice conversational skills with someone who is willing to take the time to listen, to probe for meaning, and to understand.

Provide Arena for Diversity Dialogue

Berg-Cross, Starr, and Sloan (1993) remarked on a trend toward divisiveness and animosity among racial and ethnic groups on college campuses in the United States. These authors suggested that corrective interventions must include the identification of intergroup commonalities as well as a respect for differences. Ultimately, a polycultural identity may be forged by individuals so they are able to relate meaningfully to others of various backgrounds.

Develop Demonstration Videotapes

Instruments such as the Cross-Cultural Competency Inventory-Revised (CCCI-R) (LaFramboise, Coleman, & Hernandez, 1991) have been developed to assess the cross-cultural competence of counseling. Demonstration videotapes offer students a chance to critique the cross-cultural interviews of others and themselves.

PROCEDURES

The project developers structured this research using procedural steps, which appeared to work effectively. The procedural steps included: 1) identification and recruitment of interviewers and interviewees, 2) meet with and explain procedures to all participants as one group, 3) conduct videotaped interviews in pairs, 4) frequently review and discuss results as a group, and 5) modify techniques to refine cross-cultural communication skills.

RECOMMENDATIONS

As a result of this work, eight specific recommendations are offered for replicating this effort. These recommendations include: 1) begin with skilled or advanced level counselors, 2) seek out underserved populations, e.g., international students, and other individuals from culturally and ethnically diverse backgrounds, 3) vary the composition of the interviewer-interviewee pairs, 4) keep notes of each group meeting as records of the proceedings, 5) conduct frequent meetings of current participants, 6) critique candidly the videotaped interviews with all participants partaking, 7) provide/recommend resource materials such as Culturgrams (David M.)

RESULTS

The final result of this project is to provide resources for counselor educators who are involved in preparing counselors sensitive to the dynamics of cultural differences and able to work with those differences. Additionally, interviewers not only gain an opportunity to learn more deeply about one or a few other cultures, but they also develop more “generalizable” skills in learning how to work with cultural differences. They were afforded an opportunity to begin developing self-confidence about dealing with cultural differences along with the newly acquired counseling tools. Throughout this project, a lower level of self-defensiveness and an increased openness to feedback were encouraged as model for increasing both self-awareness and usable skills for counselors.

IMPLICATIONS

Results from this research could be used for purposes such as: 1) provide counselor in-service training activities, 2) curricular improvement of multicultural or multiethnic education courses, 3) orientation programs for American host families of international students, 4) international student service offices training activities, 5) incoming college professor and instructor orientation programs, 6) student activities orientation programs, 7) for new and transfer student orientation activities (university experience courses), and 8) staff development, e.g., university, education, human service agency, industry, and government.

CONCLUSION

The structured interview process described offers an integrative, flexible, and developmental model for enhancing cross-cultural communication. The model offers the possibility of involving counselors in training and others at all levels of experience. For example, even though novice counselors were not used in the early stages of development of this model, they could easily take part in live observation, operation of video equipment, and participation in the critiques of completed videotaped interviews.

IMPORTANT THINGS TO INCLUDE IN THE PERSONAL INTERVIEW PROCESSES

Interviewee's Cultural Background Factors

Based upon the interviewer's research findings, it is very important at this point, for the interviewer to ask questions that will help to verify research facts. This can be achieved by developing and subsequently asking questions that deal with the country's geographic location and its relationship to contiguous countries, if there are any. Here, inclusion of a map of the country of origin would help to give the reader a mental picture of the interviewee's country of origin, and its relationship to the rest of the world.

Personal Factors

Questions dealing with the interviewee's upbringing, and lifestyle would be appropriate here. Those questions dealing with whether or not the person was raised in a rural or urban setting, what they did for leisure or work, and their relationship patterns could be discussed here. The issue of formal educational achievement, previous work record, accomplishments or occupational history could be discussed here.

Pre-departure Decision

Factors involved in motivation for coming to the United States (or any other country) would be discussed here. Previous travel experiences to other countries and reasons for doing so would be discussed here as well. The issues dealing with sponsorships, or scholarships, if they are students and how they heard or learned about coming to the United States are covered here.

Individual Factors

In this section it is important for the interviewer to carefully observe the interviewee's body language such as non-verbal language dispositions such as eye contact, or other mannerisms. Issues such as religion, cultural beliefs, superstitions or values that affect the individual, family, or country could be discussed here. The interviewee's experiences in this country, concerning prejudice, discrimination or racism they might have experienced and how they dealt with these experiences could be discussed here. Relationships developed with Americans, and values placed on these relationships could be covered here, also.

Group Factors

This section is where questions dealing with whether or not the interviewee had some family linkages in the United States are raised and discussed. The interviewee and the interviewer discuss whether or not the former had established any memberships in groups, what kind of groups they are--- civic, social, religious, or political. A rather in-depth discussion of current friendships or associations with Americans could be explored here.

Task Factors

The task factors section might include things such as the interviewee's objectives for staying in the United States, expectations from the American culture, preparations for tasks, such as perceived adequacy, standards, norms, for "success", access to resources such as information, informal guidance from peers, power and status as a student/professional, barriers to opportunities, and principal adjustments needed for success and problems faced, could be covered here.

Situational Factors

Things such as time constraints, pressure of work, duration of stay, home connections, - to what degree, housing—satisfaction/problems, effects of environmental factors such as climate, food, and ability to move freely, daily interaction with other people, responsibility to others in the USA, or home countries could be covered here. Another aspect that could be examined here is the individual's participation in the US culture, adjustment of family members to the American culture, and the type of problems the immigrant faced since arrival.

General Factors in the Interviewee's Culture

The interviewee's own cultural outlook on factors such as socioeconomic status or special classes, importance of ethnicity, tribalism, or the cast system, religion and its role in society, the importance of language or languages in the interviewee's culture, issues of sex and gender, as it relates to opportunities in life or the workplace, and the role of women in society, could be examined in this section. How exceptional people, or the elderly are treated in society, in general, could also be discussed here. Finally in this section, family structures—size, nuclear, extended, blended, etc, could be discussed here as well.

A Brief Comparison of Cultures

Based upon the researcher's findings, it is highly recommended that a brief comparison of the two or so cultures be made.

Conclusion

The researcher needs to summarize research findings, by addressing issues related to lessons learned from the exercise, making appropriate recommendations for further research, or how this assignment could be improved upon. Finally, the researcher is encouraged to make suggestions as what kind of people other than counselor education candidates, could benefit from doing this kind of research exercise.

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EXCEPTIONALITY: CULTURAL VIEWS AND PERSPECTIVES

Michael Eskay

University of the Cumberland

ABSTRACT

The concept of exceptionality or disability has been examined from various cultural perspectives across the globe. The author explored how services and how specific support networks have been provided to people with exceptionality. Small-scale and large-scale societies have had to deal with unique challenges in monitoring services for the disabled regardless of the geographical location; financial resources, accountability, and adequate staffing are primary problems to the delivery of services to the disabled. Prospects and challenges facing people with exceptionality make for policy reforms and advancements in special education in all countries.

INTRODUCTION

In every culture, the word exceptionality or disability is perceived differently and such perception shapes the kind of services rendered. Services in large scale societies may for example include delivery of educational; counseling; health coverage and many other related services, while in small scale societies, services may not be available. Partial or total excommunication of those with exceptionality is seen. One of the reasons for lack of services and partial or total excommunication in some of these small scale societies is negative perception of these people with disabilities by societies. For example, in some small scale societies, people with varying levels of exceptionalities are negatively perceived because of the assumption that such people are cursed, or that their fore fathers must have committed unforgivable sins against the societal guarding gods (Eskay, 2001; Obiakor 2000). With differences in perception and treatment of people with disabilities, services such as education, counseling, health coverage and so many other services are denied. Even money that are earmarked for helping these people with disabilities by the United Nations Educational and Cultural organization (UNESCO, 2004) are not used for that purpose in these small scale societies.

This article is organized into three major components: characteristics of culture and disability; conceptual concepts across cultures; and services available. The first section provides an examination of the concept of disability and culture. The second component presents a discussion of the common concepts found across multiple cultures, and the third component provides a discussion of the services available to the disabled, and finally a conclusion to the article.

CHARACTERISTICS OF CULTURE AND DISABILITY

Characteristics and interpretation of those characteristics are dramatically influenced by the culture in which the individual with disability resides; the governmental bureaus responsible for the oversight of programs for the disabled are affected by both the culture as well as the handicapping condition. Adding labels to people with disability imposes severe limitations to them from a cultural, social and an economic perspective; this limitation imposed isolates them from the culture and the workplace (Marten, 1990).

Culture

Culture can be seen as a “tradition;” a written, or an oral method of passing cultural heritage from one generation to another. The development of genetic theory came to view culture in a traditional sense as a “kind of gene pool” existing at the level of social symbolism and meaning rather than biology and with ideation rather than material existence (Banks 2001).

Prior to the twentieth century, the term culture was used by elite and powerful groups to utilize existing limitations of others and their related cultures to maintain a status quo. People who were knowledgeable in history, literature, and fine arts were said to possess culture (Gollnick and Chinn 1998); those who did not possess this knowledge were viewed as lacking in culture.

Early in the 1900s, this approach of viewing culture was seen to be narrow, biased and highly suspect. At this time, culture was defined and viewed differently from previous perspectives. According to Banks (2001), culture can be seen as “cultivation.” This implies a distinction between culture and the nature. For example, cultivating the soil

leads to having fewer weeds than leaving the soil in its natural state; one needs to know that the distinction between what is considered weed and what is considered plant is cultural.

The work of Bourdieu (1977) and Barth (1989) saw culture as a “social process;” their works emphasized the diversity which emanated from the richness of individual cultural knowledge. Culture, as a social process from the perspective of Bourdieu and Barth, emphasized three points: (a) there is a systematic process in the allocation of power; (b) a social conflict uses both tradition and conflict to systematically generate a new order of behavior within and outside of that culture; (c) human interactions, agreement and conflict, are cultural tools a culture may use to realize a new order, or to restructure an older order.

Culture can be seen as a “construction.” Culture constructs us and we in turn construct it. Cultural construction implies all thoughts, feelings, and human activity are not natural; but, they are the result of historical experiences that become an integral part of culture. In comparison of small scale (agrarian society) to a large scale (industrialized) societies, culture is seen to be different across the globe. These differences emphasize the way and manner people with disabilities are and have been perceived and have been treated across the globe.

Cultural artifacts, such as blue jeans, popular music, cowboy boots, and popular clothing, are seen and regarded as diverse examples of a large scale culture. These examples could be valued positively in this society; however, from a small scale society, these same examples would be regarded as without value to that culture and society.

The concept 'culture' has many versions in its contemporary use. If used metaphorically, culture may be used to mean an attitude, a fashion, a behavior, or a way of doing things. It is common for a new design of clothing to be marketed in a way which allows the wearer to dress in a trendy style and to express cultural pride (see generally, Fashion and Trends (2007). In South Africa in 1994, the popular government viewed popular trends to be counter to their interpretation of pride; they attempted to ban the Zulus from carrying spears, shields, and machetes in political rallies (Yanis, 1994). The Zulus responded that they should be allowed to carry the items; because, they were 'cultural' tools. The Biafra Ibos use war dance as an important function of their culture; this exhibition of Ibos cultural heritage was seen negatively and interpreted to mean the Ibos were waging wars against neighboring countries. It was not until the Ibos' cultural pride and exhibitions had been explained that an understanding between the Ibos culture and the government was reached.

Today, the academic world and the mass media are full of stories with reference to 'youth culture,' 'political culture,' or 'organizational culture.' The term culture has become so trendy that it is used as a substitute for more specific words. Most cultural anthropologists would define culture as a total way of life for a society, its traditions, its habits, or beliefs (LaGuardia and Guth 2003). Specifically, Goodenough (1987) sees culture as “a way of perceiving, believing, evaluating, and behaving.” His views of culture provide a blue print that provides a method of examining how individuals may think, feel, and behave within a society. LeVine (1984) sees culture as “...a shared organization of ideas that includes the intellectual, moral and aesthetic standards prevalent in a community and meanings of community actions.”

Culture denotes an identifiable pattern of behavior exhibited by people in response to diverse phenomena in their environment; a specific meaning is often attached to individual and group encounters to that environment. People create meaning from their interactions with their environment; these meanings and interpretations about man, nature and life give rise to a philosophy about that society. It is from this philosophy that individuals establish a reference point from which to judge actions, or non-actions of a society. A culture is learned and can vary over time. Language is a key feature differentiating it from other cultures; it too varies over time.

Disability

There are difficulties in determining a definition applicable to all cultures; as a culture varies over time, the definition of disability that that culture uses changes over time as well.

The World Health Organization (1990) defines disability as “an impairment or abnormality of psychological, physiological or anatomical structure or function; a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being; a handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that prevents the fulfillment of a role that is considered normal (depending on age, sex and social and cultural factors) for that individual.”

This definition draws attention to three terms: impairment, disability and handicap; the uses often used interchangeably results in confusion between two of the terms “disability” and “impairment.” The same can be said for the terms “disability” and “handicap;” their use also creates confusion in both how they are used as well as how they are defined.

During the 1970s, there was a strong reaction among representatives of organizations of persons with disabilities and professionals in the field of disability against the terminology of the time (Smith, 2007). The terms disability and handicap were often used in an unclear and confusing way which gave poor guidance for policy-making and service provision. The terminology reflected a medical and diagnostic approach which ignored the imperfections and deficiencies of the surrounding society.

The World Health Organization in both 1990 and in 2000 adopted an international classification of impairments, disabilities and handicaps; this classification system suggested a more precise approach to defining disabilities from an international perspective. The International Classification of Impairments, Disabilities, and Handicaps (Bickenbach, Chatterji, Badley, & Ustun, 1999) made a distinction between impairment, disability, and handicapping condition. It has been used in areas such as rehabilitation, education, statistics, policy, legislation, demography, sociology, economics and anthropology.

A COLLECTIVE VIEW OF EXCEPTIONALITY AND CULTURE

One's disability and one's culture are central to the determining the position or the status the individual is given in a specific society. Often one's disability conforming to social expectations frequently is rewarded for that behavior; the culture tends to accept those who are willing to conform to given values, standards of behavior, and ethical concerns. Cultural understanding is also shaped by the meanings attached to various behaviors; by the social and economic organization of a given society, or by other internal and external cultural dynamics, a culture imposes standards upon all citizens of that given culture. Murphy (1990) indicated that disability has been defined by society and is given meaning by a culture; therefore, there are various cultural perspectives of what disability is and how disability in people is perceived and treated in various cultures.

From the cultural perspective, large and small scale societies perceive disability differently. In small-scale societies, close interactions between individual members are the norm; each individual may have extended and multi-strand relationships with other members of that society (Scheer & Nora, 1988). Individuals may interact in the course of economic production, during leisure time, or while participating in the arts or ceremonies. The social identity in these small-scale societies is based on family clan and other characteristics and not on the individual's physical characteristics.

Eskay (2002) maintained, "The cultural perceptions of special education administrators in developed and non developed countries" supported the work of Scheer and Groce. Similar research was also conducted by Obiakor (2004) regarding the present perception of people with disabilities in Africa. Obiakor did not alter the findings presented by Scheer & Nora (1988) and Eskays (2002) concerning the cultural perceptions and treatment of people with disabilities in small scale societies. Obiakor noted that the perceptions of people with disabilities are gradually changing; but, the following objectives were important reasons for such negative perceptions in most small scale societies. The objectives noted are: (a) to develop the latent physical skills; (b) to inculcate respect for elders and those in a position of authority; (c) to develop intellectual skills; (d) to develop character; (e) to acquire specific vocational training and develop a healthy attitude towards honest labor; and (f) to understand, appreciate and promote cultural heritage of the community at large (p. 59).

CONCEPTUAL CONCEPTS ACROSS CULTURES

As we grow in our knowledge of the dynamics surrounding the concepts of culture and disability, we began to realize that individual perceptions and language play a vital role in our understanding of who we are as a people and as a culture. According to Wright (1960), "language is not merely an instrument for voicing ideas but that it also plays a role in shaping ideas by guiding the experience of those who use it." Scheer and Nora (1988) point out that when different cultures use positive language to describe individuals with disabilities, these individuals with disability end up integrating well into the society.

Body

Bodies, across cultures were universally recognized as having a purpose, a function, and a value, which aided in the survival and the advancement of a given society. The purpose, and inherently the value placed upon the body were contrived through a number of factors (i.e., industrialization, social status, or gender). Although the body was capable of having multiple purposes and varying degrees of value, it was perceived as functioning as a complete whole, a oneness within itself. The whole body was perceived as being erroneous if one aspect of the body was amiss. The concept of 'spreading' was applicable to various levels of disabilities and in various contexts (physical, social, or events) across different cultures. For example, if a woman was incapable of walking, she was also perceived as being incapable of having children. If a blind person could not see, it was sometimes assumed that he could not hear, though of course there was no necessary connection. The ethnographic essays in the Ingstad and Whyte book provided three different functions of the concept of 'body'; a symbol of physical beauty, a store house for the soul, and a medium for action.

When cultures used the body as an instrument or an outward sign of physical beauty, individuals within that society were seen as focusing their time, energy and efforts to conform to that standard. Individuals were thereby categorized and recognized as conforming or not conforming to that image. Therefore, it would be expected that individuals in key positions representing a particular culture would be considered beautiful and able-bodied. In comparison, individuals in key positions in the United States were considered beautiful and able-bodied (i.e., politicians, entertainers, and athletes). Understandingly then, individuals who did not conform, either intentionally or unintentionally, to this physical image of beauty were shunned and or rejected by the larger society. The disabled, individually and as a group, contravened all the values of youth, virility, activity, and physical beauty that most Americans cherished. The disabled were seen as subverters of the American ideal (Murphy, 1995).

In the Punan Bah culture of Central Borneo, the body played a different role from that of physical beauty, as exemplified in American society. For the Punan Bah, the body performed the function of a store house for the soul. The emphasis and value in the Punan Bah society was placed on the soul(s) of their people as opposed to the body which stored the souls). Thus when the body was not normal, due to physical impairments such as blindness, deafness, or motor disability (e.g., limping), the individual was still considered human nor were they held responsible for their condition. Unlike American cultures, where the disabled have a tendency to be shunned, in the Punan Bah culture the impaired were embedded in society. They were expected to partake in all social activities, daily household chores, and work activities, to the extent of their ability. For the Punan Bah, the issue was not with the physical but the spirit which has taken hold of the body (Nicolaisen, 1995).

For individuals who were not born with disabilities, the process of coming to terms with its impact upon the body involved a huge psychological and physical re-adjustment. Conceived as a medium for action, when the body was no longer able to perform the functions or the roles it had in the past, life ceased to exist as the person knew it. What once was a form of self-identity (roles and responsibilities conducted by the body) now becomes subservient to the disability. Research performed by Monks and Frankenberg (1995) in the United Kingdom, recognized the 'body' as functioning in three different and integrated modes; incarnate, corporeal, and somatic. It was impossible to impact one aspect of the body without intruding upon the ability or the function of the other two modes. The incarnate body encompassed a notion of a historical and actively experienced and experiencing body, in the phenomenological sense of being in the world. The corporeal (or loosely, physical) body referred to a bounded biological entity; while the somatic body was one defined by medical technologies and was usually fragmented. According to an account of Monks and Frankenberg's research on the three modes, the following is a description which most newly impaired individual was likely to experience: 'the body-its corporeal or physical aspect-was no longer an efficient and reliable instrument. It seemed to set its own agenda and have its own requirements, which competed with and inconvenienced preferred activities. In that the physical body provided means through which the self, as incarnate body, performed its social roles, these too had to be re-negotiated' (Monks & Frankenberg, 1995).

Identity (Stigma)

Identities and stigmas across the different cultures were universally imposed upon the disabled by the able-bodied individuals. It appears, based on the research conducted by Ingstad and Whyte that the values held by society would ultimately determine how the disabled people would feel about themselves and their disability. Unfortunately there was no middle ground, either the disabled people were stigmatized or they were fully accepted into the daily activities of the given society.

According to Murphy (1995), in the United States, regardless of what the physically challenged people may think of themselves, they are given a negative identity by society, and much of their social life is a struggle against this imposed image. If the people were stigmatized, the disability was considered their primary identity, while previous jobs, roles, or activities were perceived as secondary or of little importance by the able-bodied in such community. Cultures that stigmatized individuals with disabilities created an environment which fostered a preoccupation with the disability. As a result of this stigmatization, individuals with disabilities were often cast into the same lot and social status as criminals and certain minority groups: they were all seen as outsiders, deviants from social norms. One's identity as a disabled person became paramount in one's own mind, and the disability an axiom for one's actions, so too is the other's reaction to the handicapped person overwhelmed by the flaw (Murphy, 1995). The other person's reaction to the disabled person feeds into the insecurities of the disabled individual, thus creating a cyclical process of insecurity, stigmatization, and identity disassociation. In the United States, unfortunately, people who are physically challenged carry the stigma that bad things happen only to bad people; physically challenged people were looked upon as something that did not happen to respectable people.

The stigmatization of disabilities was also seen in the cultures of Japan and Uganda. In Japan and Uganda, physical disabilities were believed to have an aura of contamination which surrounded the disabled person and become attached to other family members. This stigma of contamination in Uganda caused the disabled person to become an outsider, or outcast, often times having to fend for themselves for survival. The stigma was believed to linger on even after death.

Conversely, cultures that avoided the stigmatization of the disabled had different perceptions of the ability and roles of the disabled. For example, the Maasai of Kenya avoided stigmatizing the disabled, regardless of the extent of the disability. According to research conducted by Talle (1995) on the Maasai of Kenya, physically challenged persons were expected and encouraged to marry, become parents, and participate in all communal activities to the best of their abilities. For the Songye of Zaire, deviations in the body (at birth) can induce a higher, lower, or undetermined status in comparison with able-bodied people. Therefore, not all deviation was stigmatizing, and not all persons with disabilities were marginalized because of their disability.

Research conducted by Bruun (1995) on the disabled person in Nicaragua, showed how disabled war veterans were given a positive identity for their heroic efforts in serving in their country's war. Disabled individuals during the war were regarded in a positive light and given preferential treatment in comparison to individuals who are disabled by other means (i.e., congenital, farming). Although many soldiers experienced a reduction in their old identity by their inability to fulfill their former roles (through work or in social events), the identity given to them by the government often resulted in a new higher status in comparison to their previous status.

Labeling

Disabled people are as diverse as the rest of the population, both in terms of personalities or impairments, and grouping them together under the label 'disability' encouraged a false homogeneity in perceptions of those people (Lewis, 1995). The process of labeling did two things. Labeling presupposed a certain familiarity with the contents under the label, and it provided a method for categorization.

Research conducted by Scheer and Groce found that the process of labeling was displayed more often in complex societies, as opposed to small-scale societies. In small-scale societies, during the eighteenth and nineteenth centuries, regular face-to-face contact between community members was the process for communicating and interacting. Individuals were related and connected to each other in diffused social roles and contexts. In such situations, a single personal characteristic, such as a physical disability, did not generalize to define the persons' total social identity. On the other hand, in complex societies, social relationships and contexts were more impersonal and task specific, and individuals were not related to each other in varied contexts. Accordingly, visible physical characteristics were commonly used to classify and socially represent the individual's identity.

Whyte and Ingstad (1998) validated the research findings of Scheer and Groce and indicated that the label of 'disability or handicap' was not a universal concept. A proportion of the developing cultures represented had no formal categorization or label of 'disabled or impaired' in which to describe individuals with body parts that were not

functioning to their fullest potentials. More commonly disabled people tended to be addressed and discussed in terms of the specific disability they suffered from. For example, a person missing an arm was often talked of and addressed as “*gacanley* or *gacamey*,” meaning ‘armless.’

Liminality

Turner (1967) coined the phrase liminality,⁷ to describe the process of changing status that an individual with a newly acquired disability would experience. However, the term liminality was used across different cultures and with slightly different interpretations. In interesting notation was the difference in perception of the liminality phase between the able-bodied and the disabled. As liminal people, the disabled comforted each other as whole individual, un-separated by social distinctions, and often exhibited a level of comfort not displayed in other relationships between able-bodied individuals. This lack of clarity on identity and social roles often caused able-bodied individuals to resolve their indeterminacy by segregating or avoiding liminal people (Murphy, 1995).

In an effort to understand disability as a social deviancy, Murphy (1988), used the framework of the liminality concept. According to Murphy's research, the life histories of people with disabilities were seen as arrested and dramatized in a 'rite of passage' frozen in its liminal stage. Liminality, a concept closely related to rites of passage, had three phases: isolation and instruction of the initiate, ritual emergence, and reincorporation back into society in the new role. It was during the transitional phase from isolation to emergence, the person was said to be in a liminal state literally, at the threshold—a kind of social limbo in which the impaired person was left standing outside the formal social system. Thus for a newly impaired individual their state of being was clouded and indeterminate, falling ambiguously between sickness and wellness, living and dead, participation and exclusion (Murphy, 1995). Monks and Frankenberg's usage in the United Kingdom, on the other hand, referred to liminal phases of expressive quality within the course of disablement or chronic sickness. It provided a framework for comparison which highlighted the procedural nature of sickness and incorporated the personal endeavor as well as social constraint (Monks & Frankenberg, 1995). In their research findings on multiple sclerosis (MS), the term liminal was used to describe a period of hospital admission or other seclusion from previous routines. This seclusion from life or the daily routine was often sparked by perceived changes in the physical body of a person with multiple sclerosis.

The concept of liminality varied even more when used in small scaled societies in comparison to complex societies. For disabled children in the Songye culture, their condition was considered liminal and not their personhood. For the Songye, the issue was not the visible disability, but a solution for solving the disability. Thus a person with a disability was not seen as abnormal, marginal, or deviant, but was seen as having potential with a right to development (Devlieger, 1995). Liminality within the Punan Bah culture, similar to Songye, had nothing to do with disability, but with either kinship or personhood. Failure to marry or have children placed a person in a liminal state, where they were neither child nor fully adult but an in-between person, a child-woman, or child-man (Nicolaisen, 1995).

Personhood

The concept of personhood can be categorized into three different dimensions or into three different characteristics. Personhood, according to Ingstad and Whyte (1995) was characterized as something that an individual could deny another person from having, similar to that of individuality, respect, or livelihood. In other contexts, Gollnick and Chinn (1998) described personhood as having a cultural dimension which was seen as central to the cultural understanding of disability, and was characterized as a phenomenon that was capable of being shaped.

As with previous concepts discussed in the context of multiple cultures, the concept of personhood also took on different connotations. It is important to note that there was a fine distinction between the connotations of personhood in small scale societies and large complex societies. In small-scale societies an individual's 'personhood' was directly connected to their social function, their individual ability to contribute to the day-to-day activities within their society. While in complex societies, an individual's 'personhood' was directly linked to the appearance of their physical body and their social interactions.

In the Punan Bah culture, personhood was neither determined by an individual's physical or mental conditions, nor was individuals denied personhood if they had physical or mental disabilities. However, a distinction was made between non-human and human individuals, and between non-persons and persons. At birth every individual was defined as non-human. Human status was given to individuals only after they had reached the age of at least six months. Once an individual reached the human status they were then designated as a person or non-person. This determination was based on the legitimacy of their birth. According to Nicolaisen (1995), the concept of personhood was described as the fulfillment of a socially significant career, of which parenthood was the alpha

and the omega. An individual was denied the achievement of full personhood if they failed to become married or produce offspring.

Similar to Punan Ban culture, the Hubeer and Somali did not define person or personhood by physical ability. The concept of 'person' was never a given, never completed, but rather represented by an array of continuously shifting influences, which grew with the accumulation of experience and age. The Hubeer notion of personhood appears to have had some very marked implications for their attitudes toward deviance in general and for some types of disabilities in particular. Although personal deviance was to some extent supported by the system rather than condemned by it that did not place all disability on par.

In the United States and the United Kingdom, personhood was closely linked to the physical body. Therefore, individuals with physical disabilities were 'denied' personhood by able-bodied individuals. The denial of personhood took the forms of avoidance, auras of contamination, or devaluation. Disabled individuals, who internalized this denial of personhood, often participated in self-devaluation. In accordance with the ills of contamination, the disabled in America were seen as pulling back into themselves by their own sense of loss and inadequacy, an impulse to withdraw that conspired with their devaluation by society to push them further into isolation (Murphy, 1995).

THE IMPACT OF RECOGNITION ON DISABILITY

The theme of recognition was identified in both small and large-scale societies in the social interactions depicted between the non-disabled and the disabled. The importance of this theme lies in the identification of its existence and in understanding its potential impact, positively or negatively, upon the disabled. In the analysis of the recognition theme, we applied Gutmann & Taylor's (1994) views on *Multiculturalism* (1994). His research on "Multiculturalism" was that "our identity is partly shaped by recognition or its absence, often by the misrecognition of others, and so a person or group of people can suffer real damage, real distortion, if the people or society around them mirror back to them a confining or demeaning or contemptible picture of themselves. Taylor's work is significant in understanding the social interactions and relationships.

Although the concept of recognition existed across the different cultures, there was a distinction between large and small-scale societies in their perception of the disabled. This distinction raises the question, "how is it that societies can recognize the same phenomenon but arrive at different conclusion about the phenomenon's value"? One could argue that the 'perceived' value of a phenomenon, meaning its ability to aid in the development of its society, will determine whether it is perceived positively or negatively. Inherent in this claim, is the argument that once a phenomenon changes its ability to aid society then its 'perceived' value would also change. However, in looking at the plight of ex-convicts, minorities or the disabled, it becomes clear that there are other factors used in determining the value associated with a specific phenomenon. Despite their ability to add value or to further the development of their society, ex-convicts, minorities, and the disabled in America are to a certain degree still perceived negatively.

One could also make the argument that the perceptions associated with a specific phenomenon are based on the beliefs, opinions, and attitudes of its society. If this is a valid argument, the question then becomes how are beliefs, opinions, and attitudes created and changed? Are ingrained and societal attitudes, opinions, and beliefs capable of being changed? How long would this change process take? In looking at the attempts of other groups (e.g., women and minorities), to change their identity and the recognition that they were receiving from the dominant society, it becomes a sobering reality that changes may take longer than anticipated or desired.

Change in recognition was possible. Intimate interactions between the disabled and non-disabled individuals normally led to changes in the way that the later perceived the former. Additional research indicated that close acquaintance can lead to judgment of the disabled person on the basis of personality characteristics rather than on their disability (Sentumbwe, 1995). According to Murphy (1995), the greatest impediment to a person taking full part in their society was not their physical flaws, but rather the myths, fears, and misunderstandings that society attached to them. What made the disabled particularly threatening was the psychological mechanisms of projection and identification by which people imputed their feelings, plans, and motives to others, and, in turn, incorporated those others' feelings as their own (Murphy, 1995, p. 143). Further, when the non disabled individuals recognized the disabled individuals, there was either a positive recognition or a negative recognition. Reversely, when the non disabled individuals recognized the disabled negatively they had a tendency to either treat them like children or regard them with utter disgust, disdain, or fear (Murphy 1988; Monks and Frankenberg 1995; Scheer and Nora 1988). When the non disabled individuals recognized the disabled individuals in a positive light, the disabled were treated as an integral part of the culture and society. The disabled were given jobs or important roles in social functions. Research also showed that employment was important for persons with disabilities. It can provide

economic security and independence and give them value and status as individuals. It helped with integration and acceptance by individuals without and, most importantly, it gives life a purpose (Boylan, 1991). Thus as long as physical disability is linked with shame, inferiority, disdain, or fear, realistic acceptance of one's position and one's self is precluded in the life of the disabled (Wright, 1960).

AVAILABILITY OF SERVICES

Services for the disabled could be considered to be as simple as identifying assistance for transportation to and from a specific vendor; or it can be as complex as obtaining funding for a community health project. Whether one considers small or large scale societies, there are many internal and external factors imposing barriers against adequate and appropriate services being provided or being made available to the disabled.

Small-Scale Societies

A key internal factor which militates against small scale societies receiving adequate service is that of funding which has been linked to social perceptions (Choi, Nisbeth, & Norenzayan, 1999). The amount of . . . funding for research on a disease is associated with the burden of the disease; however, different measures of the burden of disease may yield different conclusions about the appropriateness of disease-specific funding levels (Gross, Anderson, & Powe, 1999).

Ingstad and Whyte (1998) indicated that small-scale societies have a tendency of including and expecting the disabled individual to participate in the day-to-day activities of that particular culture. The acceptance of the disabled person as being fully functional within the total social structure of the society is a key element of the small scale society; far too frequently, the disabled individual has limited economic resources being available to them as well as that may be offered to the total culture.

Since the Year of the Disabled (1981) and the Decade for Disabled Persons (1983-1992), many questions have arisen about how to understand and deal with disability in a multicultural world. To what extent can programs developed in one place be successfully implemented elsewhere? What kinds of cultural and social differences matter and how can they be taken into account (World Health Forum, 1998)?

Creation of service centers, rehabilitation centers, in some small scale societies has been met unfortunately with resistance from both the local citizens as well as local governments. According to Roth (1983), this resistance has resulted in diverting aid intended for opening rehabilitation centers to other projects. The local governments have not viewed these centers with the same sense of urgency as does the disabled. Roth believes that without appropriate aid, the disabled will continue to receive inadequate rehabilitation, education, and job training. He suggests that more human resources (e.g., special education teachers, experts in rehabilitation programs, etc.) be included in attempts to develop rehabilitation centers, or programs instead of providing financial resources.

Policy makers in either small or large societies impact directly and indirectly the daily lives of the disabled. Within small societies, the policy maker has greater interest in getting re-elected and providing service to more influential community leaders than to consider minority groups such as the disabled. As policy makers consider appropriation bills, budgets, and funding within this small society, the disabled lack a powerful voice to express their position and needs. Being excluded from budgets and appropriations presents a never ending cycle for neglect and a worsening of existing conditions. Exclusion from the appropriation bill, for the disabled, will mean less educational resources and a decreased opportunity of being mainstreamed into the dominant society. Unfortunately, the few politicians who do understand the needs of the disabled carry very little political clout. After becoming frustrated, these individuals will often turn their attention to international sources for funding needed to erect rehabilitation centers.

Large-Scale Societies

The disabled in large-scale societies with the help of international organizations, such as the World Health Organization (1990, & 2000), International Labor Organization (ILO), and other political/social organizations, have been successful in using the political organizations to gain recognition and integration into mainstream society (Shukshin, 2005). Many of the large scale societies are noted for their rapid recognition and integration of various interest groups; several examples would be: the United States, England and Wales, New Zealand, Finland, Norway, and Sweden (Mazurek and Winzer, 1994). Within these countries, the disabled enjoy the same rights and privileges availed to their able-body counterparts (See Innes (2007) on Disability Rights). As a result of their efforts, a number

of public policies and laws have been passed protecting interest and rights on issues of education and discriminatory practices found in the public and private sector about the disabled.

With common and shared ideology that all disabled individuals should be recognized as equal citizens, treated with respect, and enjoy the rights and privileges of the able-body, large-scale societies have begun to spread a common message and have used various resources to strengthen that message – the disabled should be treated with equity; much of the small-scale societies have been quite slow in responding to this flow of information. With the support from international organizations, such as WHO and ILO, large-scale societies had begun to sponsor rehabilitation programs in small-scale societies through funding, research monies, human resources, ideological transfer, equipment, and maintenance. Due to language, culture, and ideology barriers, rehabilitation centers have not been as successful in some small-scale societies in comparison to their large-scale counterparts. These traditional barriers have enjoyed a long history for neglect for much of the disability and disabled. Few of the small-scale communities have been able to create, to fund, or to maintain rehabilitation centers successfully over a period of time.

The DAM project, although waiting funding, is an example of a rehabilitation initiative sponsored by a large-scale society, being implemented in a small scale society. DAM, which stands for Disability Awareness Missions, is sponsored by Global Alliance for Vaccines in Africa a non-governmental organization (NGO) that, like all NGOs, is a non-profit, non-sectarian, and nonpartisan organization registered by the NGO co-ordination bureau. The DAM project is being implemented in the semi-arid region of northwest Kenya. The DAM's target areas of disabilities include: hearing impaired; visually handicapped; mentally handicapped; physically handicapped; and the epileptic. The goal of DAM is to improve community education, health standards, socioeconomic levels, and the moral conditions of the disabled and their community, through the detection, prevention, and development of a sustainable intervention. In addition to the need for funding, other strategies for ensuring that the program will not collapse after the large-scale representative leaves will need to be implemented (Roth, 1983).

Services for the Disabled

There are many gains to be had by implementing services in both large and small societies. From many different perspectives, the gains are seen by the quality of life for the disabled; much of the research has reflected benefits to the entire economy through increased supply of human capital and an increase in productivity by disabled workers.

From various countries and many different governments, the disabled have been reported as generating a greater sense of belonging and an increased state of self-actualization when they were made to feel “included in that society.” Society is able to assure this 'feeling of belonging' by providing the appropriate resources (medical attention, employment opportunities, job training, education, and adequate housing), to the disabled and their families (Batemann, 1992). Appropriate job training and education for the disabled create a sense of financial freedom and independence; failure to provide the appropriate services to the disabled could result in psychological complications or even death (Hardman and Wolf, 1993). Additionally, the disabled and their families could be subjected to ignominy resulting in public embarrassment for both the disabled and their families. A driving force for change within the educational services has been connected to federal, state, and local government enforced laws and policies.

Many political and social activists credit the Civil Rights Movement (1955 – 1965) as a catalyst for a renewed interest in the rights of the disabled (Freedom House 2003). The issue at that time and continues in 2007 was "whether any institution could provide a humane environment that allowed maximum personal freedom and self actualization for any individual" (Kaufman & Hallahan, 1992, quoted in Mazurek and Winzer, 1994). These social and political activists believed that people with disabilities should be treated as 'equal citizens' (Ingstad and Whyte, 1998). When the National Commission on Excellence in Education produced its report, *A Nation at Risk* (1983), this document paved the way for additional governmental intervention into the field of education; this also included the disabled and all of the associated rights and benefits. For example, The Rehabilitation Act of 1973, section 504 guarantees and the Education of the Handicapped Act (1975), states that all disabled children in the United States are entitled to a free and appropriate public education. Provisions were also made to include services around employment, medical services, and to public and private accommodations (e.g., hotels, theaters, restaurants, grocery stores).

CONCLUSION



In any dynamic society (large or small scale), all areas of human activity are undergoing tremendous changes. New ways of doing things and new problems emerge as old ones are resolved. Both large and small scale societies have made tremendous efforts to combat problems facing people with disabilities in their respective countries. Despite some of these efforts, small scale societies compared to large scale societies are “theoretically” pursuing the “full” recognition and acceptance of people with disabilities into the mainstream of everyday life. This is mostly due to the ingrained cultural beliefs of these people with disabilities.

Disability is defined, perceived and treated differently in every culture and the definition, assignment of meanings and perception of disability account for the reason for legislation, legal mandates, service delivery and the kind of education given.

References are available upon request

THE FIRST YEAR EXPERIENCE: IDENTITY FORMATION AND THE DEVELOPMENT OF A COHESIVE WORLDVIEW

Brian A. Griffith
Vanderbilt University

ABSTRACT

Erikson's (1959) theory of identity formation further elaborated by Marcia (1966) describes the process of critical examination (exploration) and adoption (commitment) of a coherent worldview. The Freshman Experience (Applied Human Development in the fall and Small Group Behavior in the spring) attempts to facilitate psychosocial development by proposing an identity that includes personal competence and social responsibility. While providing a secure relational base for students, these foundational first year courses offer interpersonal experiences and reflection exercises that can lead to the formation of a more cohesive worldview that includes (a) an accurate yet complex understanding of self, others, and the world, (b) morally sound, cooperative strategies for managing life experiences, and (c) meaningful life goals that value relationships and the common good.

INTRODUCTION

Students often enter college in moratorium, that state of psychological flux where individuals begin to question and explore options regarding personal and interpersonal definitions. According to Erikson (1959), the transition between adolescence and adulthood is the time when a mature identity is formed, upon which future developmental milestones of intimacy, generativity and integrity are dependent. Adolescents are constructing a "personality within a social reality which one understands... that his individual way of mastering experience is a successful variant of the way other people around him master experience" (p. 89). These are formative years as students gain physical and emotional distance from parents and family and attempt to answer the big questions of life such as: Who am I? How do I connect with others? and What should I do with my life?

Erikson (1959, 1980) suggested that society allows adolescents the college years to struggle with these questions before expecting them to be productive members of society. Students balance the demands of academia with their social lives as they attempt to understand themselves and others and figure out how to manage the various tasks and challenges of life. This crisis of identity spawns self-examination and exploration, which, if successfully resolved, leads to an established or achieved ego identity (Marcia, 1966). Students can then enter adulthood with direction and a commitment to socially acceptable strategies for reaching meaningful goals and desires.

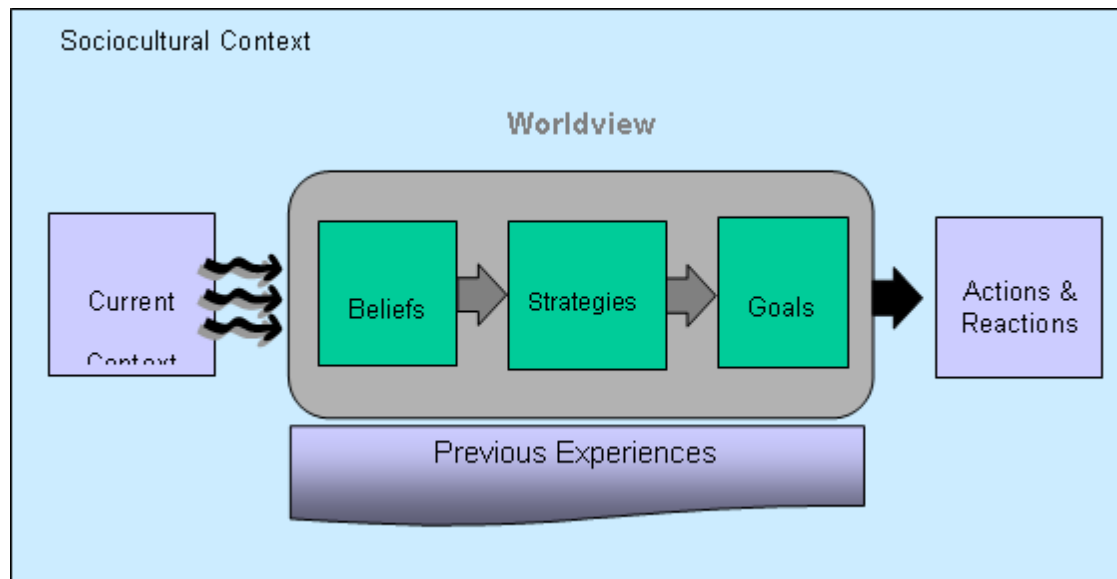
STRUCTURE AND FUNCTION OF WORLDVIEWS

A worldview is an internal cognitive framework that conceptualizes self in the context of the world and defines strategies and coping mechanisms used in the pursuit of meaningful goals. Described by Epstein (1991) as a personal theory of reality, they "serve the purpose of organizing the data of experience and directing behavior" (p. 93). Attachment researchers refer to worldviews as internal working models that are "organized representations of past behavior and experience that provide a framework for understanding new experiences and guiding social interaction" (Shaver, Collins & Clark, 1996, p. 39). Healthy psychosocial development requires a worldview that both empowers individual development and promotes healthy relationships with others. Bowlby's (1969, 1973) attachment theory describes the development of internal working models that not only guide personal relationships but also apply to the broader understanding, management and meaning of life as conceptualized in the term 'worldview' used in this paper. The following diagram illustrates the structure and function of worldviews (Griffith, 2004).

Worldviews or internal working models provide a framework for "perceiving and interpreting events, in forecasting the future, and in constructing plans" (Bretherton, 1991, p. 8). Internal working models contain four inter-related components: (1) memories of past experiences, (2) beliefs, attitudes, and expectations about the self and others, (3) goals and needs, and (4) strategies and plans used to achieve goals (Bretherton, 1993; 1996, Collins & Read, 1994).

Past experiences stored in the form of memories provide the foundation and justification of current beliefs, attitudes and expectations. Memories are not necessarily an accurate representation of what actually happened but, instead, are a highly subjective interpretation and explanation of past events. The way individuals make sense of life

experiences (especially those that are emotionally intense and repetitive) eventually establishes a pattern of beliefs, attitudes, and predictions of future experience. Beliefs about self, others, and the world become the framework through which data are noticed and interpreted. For the most part, this process operates outside of one's awareness (Epstein, 1991). Once a worldview is established, new experiences are assimilated into the existing belief system, which can create blind spots as discrepant data are selectively screened out or misinterpreted. This selective process of perception and information processing is efficient but not always accurate. Starting with an assessment of self, others, and the world, we construct strategies or plans to fulfill needs, goals, and desires. Social norms and moral guidelines provide boundaries that influence the establishment of socially accepted behavioral strategies. Those strategies that are effective become established patterns of behavior used to achieve desired outcomes. Once established, worldviews adopt protective strategies (i.e., defensive mechanisms) for stability, which makes them resistant to change. Unfortunately, this lack of openness can prevent continued learning and growth (Argyris, 1985).



A well constructed worldview produces a sense of coherence that includes a comprehensive understanding of the world, a belief in one's ability to handle the challenges and opportunities of life, and the motivation to pursue worthy goals (Antonovsky, 1987). Antonovsky (1987) defines the sense of coherence as a global orientation to life that is comprehensible, manageable, and meaningful. Sense of Coherence (SOC) provides the stability to embrace life with optimism and hope and is a strong predictor of psychological as well as physical health and well-being. Lack of coherence produces hopelessness, depression, and anxiety (Peterson, Maier, & Seligman, 1993).

FIRST SEMESTER: APPLIED HUMAN DEVELOPMENT

Similar to the secure base of parents to an infant, this course seeks to create a holding environment within which students can develop into caring and competent adults. The 3-credit hour Applied Human Development includes lectures and discussion groups that address the following themes: (a) social, emotional, and cognitive development with emphasis on late adolescence and young adulthood, (b) identity formation, (c) the dynamic relationship between the need to establish an individual identity and the need to belong to a group, and (d) personal meaning. Weekly lectures include topics such as Self and Identity, Gender Identity, Ethnic Identity, Family Systems Theory, Worldviews (Internal Working Models), Reflective Judgment, Love and Attachment, Intimacy and Communication, Popularity and Friendship, Professional Development and Work, Generativity vs. Stagnation, Cognition and Aging, and Death and Dying. The class meets a second time during the week in groups of 25 to discuss the readings and lecture material.

Associated with the class is a one-hour lab of 12 or 13 students led by either a professor or a teaching assistant to stimulate self-awareness and teach interpersonal communication skills. The discussion groups and small group labs provide a high level of teacher-student interaction and acceptance in which students can take risks and test ideas. The classroom atmosphere is one in which students are able to speak openly and honestly. This helps them begin to understand the content and origin of their worldview.

After establishing emotional safety in the classroom, students are asked to reflect upon and examine their internal working models or worldviews. According to Dewey (1933), reflection "involves active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further consequences to which it leads" (p. 9). Stereotypes and biases are critically examined and explored. Assumptions about self, others and the world are brought to light and discussed. Students are purposefully destabilized through provocative readings, video clips, popular music, group exercises, and personal reflections to help them think through uncritically held assumptions and perspectives. Most activities include an outlet (written or verbal) to think reflectively and process their experiences. Kolb's (1984) experiential learning model uses the practice of reflection to connect life experience with theoretical assumptions that guide those behaviors. The practice of reflection invites students to examine and modify their worldviews.

SECOND SEMESTER: SMALL GROUP BEHAVIOR

Students and faculty move as a group into the spring semester with the Small Group Behavior class. Building upon the experiences of the first semester, this course attempts to provide additional experiences in which students will confront and adapt their worldviews and broaden their interpersonal experiences in order to develop more mature attitudes and skills in dealing with others in a group context. This last goal is the primary focus of this class; the ability to connect with others personally as well as professionally is not only necessary for personal well-being but is also a prerequisite for organizations and communities.

Student attachment styles can greatly affect learning communities that have high levels of interpersonal interaction and group work. While attachment dynamics occur in family, peer, and romantic relationships, peer relationships are the most salient for the classroom. Attachment styles, which both inform and emerge from one's worldview, affect individual as well as collaborative learning. Experiences during the college years will likely set a pattern of interpersonal dynamics that will continue on in the workplace. Once an attachment style and associated worldview is established (identity achieved), they remain fairly consistent throughout the lifecycle (Collins & Read, 1994). This course attempts to facilitate the development of healthy interpersonal styles to prepare students for productive professional and personal relationships.

The course is structured according to Kolb's (1984) model of experiential learning. Students engage in various group projects, i.e., 'concrete experiences', and respond with written 'reflective observations' and 'abstract conceptualization' -- the integration of the text and reading material to understand and explain their experiences. Finally, students are asked to describe ways they can take risks and try new behaviors in what Kolb calls 'active experimentation'. This process is facilitated through two 15-20 page reflection papers that account for a large portion of the students' grade. The papers are very time consuming to grade and require much specific written feedback if students are to improve in the second paper. They often require a face-to-face meeting for individual coaching as well. Students tend to have difficulty with describing events in neutral and descriptive terms (concrete observation). Their judgment clouds perception and memory and they tend to use words, which indicate their assessment of the behavior they are describing. Students tend to see their own culture as transparent and miss the importance of it in affecting their reactions and judgments. Students who are concrete thinkers and less reflective, in general, have a difficult time with this section since they tend not to spend time processing their experience but move quickly from action to action. Students at this age have the most trouble attempting to take someone else's perspective. For example, a student might write, "John talks a lot in lab because he needs to be the center of everything and because he thinks he is smarter than the rest of us." The more different students are in background and values, the more difficult it is for the student to speculate about what that person's unique perspective on an event might be.

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CLASSROOM MANAGEMENT CHALLENGE: INCREASE COMPETENCE AND CONFIDENCE OF PRE SERVICE TEACHERS

Marilyn D. Foxworth

The University of Southern Mississippi

Sandra L. Manning

The University of Southern Mississippi

ABSTRACT

Lack of professional support and classroom management are reasons historically cited by teacher inductees who leave the profession within their first years of service. To address this concern, two distinct courses, a special education and a general education classroom management course required at a university in the southeastern region of the United States, are being linked through select methodology and faculty collaborative efforts for outcome evaluation purposes. The focus is to increase pre-service teachers' competence and confidence in classroom management utilizing co-teaching models. Teacher candidates are randomly paired across classes to create, rehearse, and teach lessons in K-6 clinical settings utilizing one of the co-teaching models. Classroom management problems, professional observation, communication skills, and confidence levels are assessed using pre and post assessment via an eight item Professional Collaboration Inventory designed by the authors. Quantitative and qualitative results will focus on outcomes based on the collaborative paired co-teaching environments. Implications for teacher redesign studies and collaborative efforts between special and general educators are presented.

INTRODUCTION

Today's classroom teachers are required to be more highly trained and competent in decision-making skills than at any other time in our nation's history. Factors responsible are the expanse and acquisition of knowledge brought on by advancements in technology, accountability issues in education, liquidity of family profiles, economic conditions, and local, state, national and world safety concerns (Darling Hammond, 2006; Levine, 2000; NCLB, 2001). Charged with the responsibility of preparing teachers for today's classrooms, teacher educators must continually analyze, evaluate, and develop the means to enable teacher candidates' to build competence and confidence in teaching abilities matched to real world expectations. Response to change is imperative. In answer to these needs, teacher education faculty in both elementary and special education at a university in the southeastern United States are seeking to work collaboratively to help prepare undergraduate teacher candidates for the challenges inherent to today's educational climate.

BACKGROUND OF STUDY

The authors, instructors in two distinct classroom management courses at a southeastern university, initiated collaborative work in order to link the two courses for maximum student benefit. Given the proliferation of inclusive classrooms in public education settings precipitated by the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), it is incumbent upon teacher education programs to teach, model, and provide opportunities for practicing methods of collaboration and co-teaching to prepare graduates for the realities they will face as they enter the field.

Finding that these methods were lacking in the instructors' teacher education program, steps were taken to better prepare pre-service teachers in this area. The classroom management courses in the program were determined to be the best venue for these collaborative efforts to begin. The university currently offers two distinct classroom management courses. One is geared toward preparing students to teach in general education classrooms while the other is designed to prepare students for working in special education classrooms. Both of these courses have a corresponding clinical component in which teacher candidates observe and teach in public school classrooms. The pairing of a general education teacher candidate with a special education candidate offered the opportunity to simulate the type of working arrangement that would be observed in a public school inclusive classroom setting.

Although both courses offered content and strategies for classroom management individual to the populations being served, they failed to explore the concepts of collaboration and co-teaching in meaningful ways. In order to rectify the situation, this on-going action research project began in the fall semester of 2008 and has continued and

grown each semester to the present. Throughout this process the methods and strategies to strengthen teacher candidates understanding of the concepts of collaboration and co-teaching have evolved. This evolution lies at the heart of the project. The goal of understanding (Andrews, 2003) the myriad of issues involved in the development of effective collaboration and co-teaching and then to translate those into tangible outcome skills in pre-service teacher candidates is reflected in the study thus far.

PARTICIPANTS

Because of the on-going nature of this study, participant numbers vary across the three semesters (spring 2008, fall 2008, and spring 2009) since the project's inception. The initial participant group included only the authors, two instructors of classroom management courses. Both Caucasian females with public school teaching experience that exposed neither one to formal co-teaching experience. The second semester of research included pre-service teacher candidates in both elementary and special education degree programs. Specifically, thirty undergraduates enrolled in the two classroom management courses (15 per course) participated. This group included 3 males and 27 females. Ethnicities of these groups were 3 African American (all female) and 27 Caucasian (3 males and 24 females). All students enrolled in the classroom management courses were in their second semester of professional education courses.

The current semester cohort ($n = 40$) participating in the study includes a larger number of students enrolled in the general education program with only 11 students enrolled in the special education program.

METHODS

Collaborative efforts for the study began in spring 2008 between the two course instructors. At this time, discussion centered on how collaboration and co-teaching might be modeled for our individual student groups. Having not been formally trained in these methods, the realization of our own deficits in this area became quickly evident. Thus early work included intense study of co-teaching and collaboration models in the form of group and individual professional development. Though time consuming, this step was of utmost importance to the long-term goals of the research.

An initial plan was made to provide instruction in co-teaching models. A major element of the study included opportunities for professional dialogue with other teacher candidates in diverse settings. Students were administered an eight item Professional Collaboration Inventory at the beginning and end of the fall 2008 semester. The two classroom management courses were combined for a unit of instruction on co-teaching. A four week child study observation in the teacher candidates' clinical settings was also initiated to increase observation and anecdotal note taking skills. The rationale and initial efforts of these experimental activities undergird the need for teachers to work as team members tapping the expertise of both regular and exceptional needs teacher strengths for the P-12 student's greatest benefit.

The culminating assignment for this phase of the study was a co-teaching simulation experience. In this activity each general education teacher candidate was paired with a special education teacher candidate to plan and co-teach a K-6 lesson. The instructors felt that time restraints during the semester prohibited collaboration on the development of a lesson; therefore, lesson plans that had previously been written by each of the special education participants were used. Co-teaching pairs met to determine the best co-teach model to apply to the lesson and subsequently co-taught the lesson in their university class before teaching the lesson to K-6 students in their clinical settings. Instructor, peer, and self-evaluations were made and discussed in debriefing sessions after each lesson was taught.

DATA COLLECTION AND RESULTS

Data collection is ongoing. Early feedback from participants regarding affective outcomes include increased dialogue which is essential to helping teacher candidates understand the varying perspectives of their teacher education colleagues. An interesting factor that has surfaced in the early results indicates the importance of relationship building between co-teaching partners. An underlying current of animosity has been detected between a few of the co-teaching pairs. The varying standards of internal work ethic among the students and personality dispositions became evident when students were required to plan and execute a co-taught lesson. Consequently, this paints a vivid miniature of the issues that affect the success or failure of co-teaching in the public school system. Those students who were able to build rapport with their teaching partners were able to translate that into an effectively co-taught lesson. Conversely, a lack of rapport was evident when co-teaching pairs taught their lessons to their university classmates.

Outcomes on the pre-post assessment indicate that students gained greater knowledge of co-teaching models. While this is a positive outcome, the instructors found that other indicators on the assessment were unchanged. A deeper understanding of the meaning of collaboration and an internalization of the importance of building rapport with one's colleagues is still lacking.

CONCLUSION AND FUTURE DIRECTIONS

Thus far, the instructors have determined that the initial use of a lesson plan previously developed by the special education pre-service teachers may account for some of the rapport problems noted in the co-teaching pairs. The mistaken idea on the part of some of the teacher candidates that the person who developed the lesson plan was "in charge" served to place the simulation experience on unsure footing from the start. To remedy this situation, in spring 2009 co-teaching pairs are responsible for choosing a lesson plan together. This may be a ready-made lesson plan that is obtained from internet sources or one written together. The concession to select a lesson plan from the internet is again made in the interest of time available for the project during the academic semester. However, co-teaching pairs must agree on the content and plan chosen for use. It is anticipated that this will give each partner ownership of the content material to be adapted to one of the co-teach models for teaching in both their university and clinical settings.

Concurrently with the research study being undertaken, a university self-study redesign of teacher education prompted by state higher education groups identified five major areas of focus: content, field experience, P-12 partnerships, classroom management, diversity and exceptionalities. The authors are involved in the study sessions and have discovered through them additional classroom management components within the university teacher education program for further examination. These include specific co-teaching planning to include the needs of P-12 students with exceptionalities and the need for expanded data collection for measuring classroom management competence that extends beyond the semester in which the classroom management course is taken. Subsequently, the authors have added additional components in their co-teaching instructional unit that require co-teaching pairs not only to apply a co-teaching model to a lesson plan, but also to include accommodations within that plan for a student in one of the following areas of exceptionalities: attention deficit disorder, oppositional defiant disorder, dyslexia, dyscalculia, dysgraphia, autism, cognitive delays, or giftedness.

Finally, the authors are committed to build and expand available resources such as case study sets and other simulation experiences to increase the problem-solving dimension of the teacher candidates' learning experience (Marzano, Pickering, Arredondo, Brandt, Blackburn, & Moffett, 1992). Continued collaborative work will also address weaknesses identified in the study. Specific plans include revision of the pre-post Professional Collaboration Inventory and the utilization of a self assessment Classroom Management Confidence Scale created by the first author. This scale will be administered each semester throughout the teacher candidates' professional education courses to track growth over time. Through these efforts, the authors will continue to provide modeling of collaboration, response to the needs of pre-service teacher candidates, and address concerns within the educational profession – one issue and opportunity at a time.

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ANTICIPATING AND SUPPORTING THE TRAJECTORY OF PROFESSIONAL GROWTH: A QUALITATIVE STUDY OF BEGINNING TEACH FOR AMERICA TEACHERS

Rachael Gabriel

University of Tennessee, Knoxville

ABSTRACT

This paper presents the findings of a qualitative study of interviews with six Teach For America (TFA) teachers that began their teaching careers in a Washington, DC charter school. Participants were invited to discuss their experiences with professional development programs and the roles of reflection and collaboration in their practice. Teachers' responses supported the findings from Garet's (2001) study of the elements professional development programs that change teacher practice. All teachers rated their colleagues as their most valued and trusted resource for increasing their own effectiveness as teachers, which is explored within the framework of Situated Learning in communities of practice (Lave & Wenger, 1991). The thematic analysis of narratives also revealed a pattern to the role and function of reflection in each teacher's classroom across their first three years. Implications for the planning and organization of professional development programs in school and within Teach For America are discussed.

INTRODUCTION

Researchers now refer to a "new paradigm" in professional development (PD) (Hawley & Valli 1999; Darling-Hammond & Richardson, 2009). Unlike the Old Paradigm of one-size-fits-all-teachers in-service days, and one-shot workshops where teachers sit and listen passively, the New Paradigm emphasizes active participation, collaboration, reflection and opportunities for growth that are ongoing and embedded in practice and content-focused. As Virginia Richardson points out, this consensus among researchers and teachers surrounding what PD should be is rarely carried out in schools (Richardson, 2004). The purpose of this study is to examine the roles and perceived value of different professional development programs, reflective habits and opportunities for collaboration among Teach For America Corps Members in their first through third years of teaching. I came to this research in an effort to provide meaningful feedback to a variety of stakeholders involved in designing programs to support the development of beginning teachers.

Related Research and Methods

Darling-Hammond & Youngs (2002) found that student achievement gains are much more influenced by the teacher than any other factor including SES, class size or class composition. Their work is supported by Allington's study of exemplary fourth grade teachers (2003), which showed that effective teachers will enhance student achievement regardless of the materials, pedagogical approach or curriculum program they are asked or allowed to use. Several studies also link high-quality professional development to teacher retention and job satisfaction, especially among new teachers (Wong, 2004; Woods & Weasmer, 2002). Teacher quality, retention issues are especially salient for alternatively certified teachers, like those in TFA, because of their minimal pre-service training.

Participants include two first-, two second-, and two third-year TFA teachers that were placed at the same charter school in Washington, DC. All are highly qualified in their content areas and were required to enroll in a teacher certification program at a local university. The certification leaves them two courses short of a Master of Arts in Teaching (MAT). Five of the six are therefore pursuing the MAT by taking extra courses over the summer. Edmundo is enrolled at a separate university than the other five participants because he is in the program for Special Education teachers.

There are three major sources of PD for the participants: a local University certification program, TFA, and the charter school. The universities hold two evening courses a semester and send mentors to observe and give the teachers feedback in their classrooms over the course of the year. TFA holds monthly PD Saturdays, and a series of observation/debrief sessions with a "Program Director" (mentor) throughout the year. The school holds periodic in-service PD days, and assigns each teacher a mentor who observes periodically.

TABLE 1. *Participant demographics (pseudonyms are used)*

	1 st year	2 nd year	3 rd year	
Cindy	6/7 th grade Reading			female
Edmundo	7 th /8 th grade Special Ed: English inclusion			male
Sarah	6 th grade Science	6 th grade Science		female
Kelly	7 th grade Social Studies	7 th grade Social Studies		female
Carly	8 th grade math	6 th grade math	9-11 th grade math	female
Ginger	6-9 th grade Special Ed Resource	6 th grade Special Ed Resource	9 grade learning specialist (SPED)	female

Seven participants were invited to participate in a study of their perceptions of PD over email. Six responded to the invitation and were then mailed a consent form that was returned before interviews were scheduled. The researcher used a Skype recording device to record the phone interviews for later transcription. Sturges & Hanrahan (2004) have compared phone and face-to-face interviewing, and found that “comparison of the interview transcripts revealed no significant differences in the interviews. With some qualifications, we conclude that telephone interviews can be used productively in qualitative research.” The phone interview consisted of five open-ended questions, but it should be noted that participants voluntarily continued sharing examples and opinions for at least ten minutes after the researcher concluded questioning.

Once transcribed, the interviews were analyzed as narratives one by one, and then organized by question and topic to compare responses across participants. Statements about each professional development resource were also compared across participants who mentioned it. The researcher used both sociologically constructed and in vivo coding techniques to analyze the data (Coffey & Atkinson, p. 41). Sociologically constructed codes included references to “expert or expertise” and to “reflection.” Several themes emerged from the combination of sociologically constructed and in vivo coding. The researcher performed a thematic analysis across the interview narratives. Conclusions and recommendations for future professional development programs and future research are drawn from these analyses.

In order to increase validity of findings, and in accordance with the conditions of Internal Review Board approval, the researcher conducted a member check by sharing her analysis and findings with each of the participants (Glesne, 2006). Participants offered validation as well as some additional information, which consisted of further anecdotes about experiences with Program Directors and mentors. Second and third- year teachers expressed excitement about the possibility of their experiences and suggestions being carried to a wider audience.

Thematic Analysis: Choice, variety, specificity – Differentiation

A common theme across participants’ narratives was the expressed desire for choice in professional development topics and formats from a variety of options. On the rare occasion that teachers were allowed to choose which programs to attend, their perception of its value increased. For example, all participants attend a Saturday Professional Development Workshop series organized by TFA, which offers a list of 15-20 workshops to choose from for each of two morning sessions. The afternoons include content-specific sessions led by Program Directors and adjunct Content Specialists. The workshop lineup is determined monthly using data collected by TFA staff members during observations in CM classrooms across the city.

Participants valued workshops that had a specific focus instead of a general message, especially if that focus had to do with their content area (math, science, social studies, etc.). Cindy points out that the chance to meet with other Middle School English teachers is more valuable to her than the similar opportunity in her graduate class where she’s grouped with 6th-12th grade English teachers. Being able to focus on middle school helps her develop a sense of strategies, resources and standards that are specific to her students.

When participants were asked to describe PD experiences they wish they hadn’t had to attend, several teachers mentioned the school-based in-service days because the same information is often presented to the entire

staff at once. In-service days organized by the charter school were listed low in terms of value because the information presented was too general or redundant.

According to Garet, et al., (2001), one-shot workshops are not typically effective forms of professional development because they lack the duration usually needed to influence changes in practice. Fullan (1991) writes that, “nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change in practice when teachers returned to their classrooms” (p 315). According to the participants, however these choice- and interest-based, focused, one-shot workshops are valued opportunities to pick up some of the concrete tools and resources new teachers are often scrambling to compile.

Another reason PD Saturdays were rated high points to the third theme in participants’ responses: the desire for teacher choice in PD. Garet et al., (2001) also found that effective PD is aligned with a teacher’s individual and school-wide goals. Edmundo reported being able to “pinpoint” what he wanted to focus on in his own teaching by choosing workshops that matched his questions and interests. Though workshops may limit learning possibilities to strictly informational learning, instead of transformative learning, (Mezirow, 2000) beginning teachers may be in need of both.

The desire for choice, variety of options, and specificity of focus which allow alignment with learning goals all point to a pedagogy for teacher education in which professional development is differentiated. More than one participant said that ideal professional development should be “tailored” to individual teachers’ needs and interests. It stands to reason that teachers who believe that their job is to assess and then meet the individual needs of their students, using a variety of strategies and groupings, would value the same consideration for their own learning.

Colleagues and Collaboration

Almost every participant listed their colleagues as their most valued resource. Participants especially value colleagues who teach the same content, but proximity and availability of same-content colleagues often causes them to just lean on the teachers who are around them the most. There were, however, differences in the role colleagues played in teachers’ development across their first three years of teaching.

First year teachers go to colleagues for ideas and solutions to teaching problems. Second-year teachers reported planning with their peers and using them as sounding-boards to bounce ideas off of. Both third year teachers described the importance of observing, discussion, having conversations with, and just being around their colleagues for inspiration, fodder for reflection and for collaborative problem-solving.

All teachers also valued being observed and observing others, yet participants repeatedly expressed disappointment about feedback from observations. Several participants referred to feedback that was “too nice,” or not critical enough. Carly and Cindy also expressed frustration about times when observers generalized isolated incidents because of their lack of context. Although new teachers may not yet be objective about their performance, it seems that these teachers all put a lot of stock in observations and debrief sessions, yet struggle to get the results they want.

Kelly’s experience with her school-based mentor, however, points to a possible solution for making these valued observations as productive as possible. Kelly’s mentor observed her five times over a short period of time and managed to debrief with her after each of those visits – even when that meant calling Kelly from home in the evenings to chat about what she observed. Kelly wrote in a follow-up email that she thinks her mentor tried this back-to-back schedule because she, “just felt like it wasn’t going to be really purposeful feedback unless we, together, implemented it right away.” After the series of observations, Kelly’s mentor had a more complete and balanced picture of Kelly’s style, classroom culture, and the patterns of student behavior. She used this to guide Kelly’s reflection in a meaningful and productive way. Given the option of intensive observations once or twice a year, versus single observations spread out across the year, Kelly whole-heartedly valued the former. Sarah also mentioned wishing the 8-10 observations she has scheduled across a school year happened in closer succession so that observers would be working with a greater sense of the context of her classroom.

Trajectories of reflection:

Reflection and reflective practices were mentioned in every interview, and there was a pattern to the role reflection played in the process of increasing effectiveness over the first three years of teaching. First year teachers are like shoppers in a department store. They value choice, variety and things that fit their self-identified needs. Interactions with material and human resources are generally one-way as first-year teachers “take in” and “collect” ideas and solutions. Reflection is used primarily to identify problems and areas for growth. Edmundo reports,

“being able to really locate areas that I’ve been struggling in and really pinpoint those areas in the workshops I select.” He talks about the process of deciding to go to a workshop on co-teaching saying: “I’ve been freaking out about co-teaching because it wasn’t working out very well in one of my situations and I said it’s no longer effective to just sit back and complain about it.”

If first year teachers are loading their arms with items to try on, second year teachers are in the dressing room trying things on in front of the mirror, discarding things that don’t fit and making those that do part of their permanent collection. They spend a lot of time looking in their mirrors, that is reflecting on their own. When they reach out to colleagues it is not for solutions, but for help reflecting: for a second opinion. The second year teachers talk about reflection as their way of problem solving, instead of problem identification. They describe their valued interactions with colleagues as using a fellow teacher as a “sounding-board.” Sarah values her Program Director because he listens well. Kelly gave her Program Director and school-based mentor high praise for forcing her to reflect more than she would have on her own in their meetings.

Third year teachers have their outfits all picked out, wear them confidently, and value going out among other teachers to compare and synthesize new ideas collaboratively. Ginger says: “I don’t need anymore resources.” And later adds, “the best thing about my job is that I get to observe other teachers all day long.” As a Special Educator who spends half the day “pushing in” to support her students in their General Education classes (instead of pulling them out to a resource room) Ginger co-teaches with a few different teachers every day. Though Carly was disappointed that her department chair didn’t give critical feedback on her performance during a formal observation, she repeatedly mentioned the value being able to observe and plan with her.

University Partnerships

When asked to list PD resources available to him, Edmundo left his graduate courses off the list until the researcher asked directly if he was enrolled in graduate classes. He replied: “Yes I am enrolled in a grad program ... And it is for my certification in SPED and also my licensure.” In other words, his courses don’t come to mind as resources for development as a teacher, they are for the professional and legal hoops he is required to jump through.

It seems that the role of graduate courses is primarily to fill in the theory behind teaching, yet in-service teachers are expecting to learn more about practice. Patrick Finn describes this in his book *Literacy With An Attitude*, (1999) when writing about the graduate courses he teaches. He writes, “Many of my students are hard-bitten school teachers. They are practical and down to earth, and they judge everything I say by one criterion: how would this work in my classroom?” (p.7). Finn admits to judging his own graduate courses with the same criterion twenty years earlier when he too was a school teacher. He then describes working hard to build student engagement.

Although it should not be necessary to spend time investing graduate students in their studies the way teachers spend time investing high school students in their biology classes, the principle of a shared goal for the time spent in class is not lost at the graduate level. The theoretical goals of the graduate courses should be made more explicit so that their abstract connection to practice is viewed as a fulfillment of expectations, instead of as a short-coming.

The only instance of a positive comment related to university coursework described a course that fit both Linda Darling-Hammond’s (2009) Garet, et al.’s (2001) criteria of effective professional development. Kelly’s course on teaching reading across the curriculum taught by an adjunct professor who also teaches 7th grade social studies in DC. It involved an action research project and the distribution of multiple packets of ready-to-go materials and strategies. It was thus content- and age-specific, congruent with the teacher’s interests and goals, and allowed active engagement with the material, and ongoing reflection on practice. This course could serve as a model that meets the criteria for high-quality professional development and teacher expectations for their university coursework.

CONCLUSION

A thematic analysis of narratives from six teachers who began their careers in a DC Charter School with the Teach For America program, enrolled in an MAT program at a local university have firmly supported Garet, et al.’s findings on professional development by emphasizing the value of differentiated development opportunities that allow choice, content-specific strategies, and ongoing collaboration and reflection. Of all the professional development available to these teachers, only some offer the kinds of programs these teachers’ preferences, and relevant research, support. Choice, variety and specific content-focus of workshops, and intensity of observations stand out as the most valued elements of a professional development program and should be considered when designing and revising current in-service and mentoring programs.

Participants' narratives pointed to a mismatch in expectations and investment in graduate coursework, not an inherent theory-practice gap. Teacher educators need to be explicit about the very specific role graduate coursework can play in teacher development, and courses must match the needs and proactively engage beginning teachers. If the local universities, or TFA as their partner, want graduate coursework to have a positive impact on practice, this misalignment needs to be addressed with curricular revision and/or a discussion about the expectations and utility of graduate coursework.

Furthermore, there seems to be a pattern to the type and use of reflection as part of each teacher's development across their first three years. Teachers go from collecting ideas, to engaging in self-reflection, to engaging in collaborative reflection as they compile, refine, and then look to expand their professional knowledge and repertoire of instructional responses. This may be a developmental trajectory for reflection styles, or evidence that teachers have progressed past surface challenges to deeper challenges that require ongoing collaboration. It may also point to a growing awareness of the complexity of the challenges of teaching in high need schools. The pattern points to a need to review the role and structure of observations in developing beginning teachers.

Making teachers and teacher educators aware of this common trajectory of development across their first three years may aid them in seeking selecting and designing professional development opportunities that best fit the phase of development, needs and interests of beginning teachers. Future research should investigate the same questions with a much larger and more diverse participant pool to see if these patterns persist in other schools, districts and among non-TFA teachers.

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MADELYN, A PRESERVICE TEACHER BECOMES A WRITER

Jacqueline Parten Gerla
University of Texas at Tyler

ABSTRACT

A review of the literature reveals that preservice teachers do not consider themselves writers. This article examined the influence that a transactional model of teaching, reading/writing workshop, had on one preservice teacher's perception of herself as a writer. In this naturalistic study, the teacher/researcher used reading/writing workshop to immerse preservice teachers in writing. Data sources were interview and conference transcripts, transcripts of small group sessions, students' reflexive and response notebooks and literacy histories, field notes, and student writing. Analysis of the data revealed that a transactional approach to teaching preservice teachers has a positive effect on students' perceptions of themselves as writers

INTRODUCTION

"And so when the people and the huge heavy things walk away they are not changed, except their feet are muddy, but I am changed. I am still here and still mud, but all full of footprints and deep, deep holes and tracks and traces and changes. I have been changed. You change me. Do not take me for granite" (LeGuin, 2004, p. 9).

If students are to experience the deep, lasting change to which LeGuin refers, would a change from the transmittal mode of teaching to a transactional mode in education methods classes best create that change in the student? The following case study examines the change experienced by one preservice teacher as she changed from one who detested writing into one who loved it.

LITERATURE REVIEW

In this world of educational accountability, many legislators, administrators, parents, and teachers take learning to write for granted. "Give them enough prompts and enough practice addressing those prompts, and they'll pass those state-mandated tests." At times, it seems that passing the test is all that matters in education any more. College professors generally moan about the state of education. They try hard to convince their preservice teachers that there is more to teaching than testing (Coles, 2000; Cunningham, 2001; Garan, 2001; Vacca, 2001) and that there are authentic ways to help children become writers. Some professors have begun changing from the traditional lecture classes into more interactive models designed to help their students become deep thinkers, researchers, and writers. Short and Burke (1989) advocate that professors teach in such a way as to make reflective, inquiring researchers of their students. Andrews (1992) set up her college classrooms where her students worked in literature circles, read novels, and kept journals. She noted three implications for teacher educators: (1) the transactional nature of learning must be lived in the college methods classroom if it is to be practiced in the public schools, (2) changing the traditional roles of students and instructors in the college classroom is necessary to the demonstration of learning, and (3) demystifying the knowledge base in the classroom allows students to recognize their power and worth as teachers and learners. Christensen and Dennis (1992) stated, "We must support our preservice teachers in their journey as life-long learners, demonstrate collaboration and cooperation in the teaching-learning process, and, of course, demonstrate that we are life-long learners ourselves (p. 16). These educators understand that if we want our nation's children to be writers, then their teachers must instill that love of writing within them. Reading/writing workshop (Graves, 1983; Hansen, 1987; Harste, & Short, 1988; Calkins, 1994; Atwell, 1987; Avery, 2002; Gerla, 1996) has demonstrated much efficacy in doing that. If teachers are not lovers of writing themselves, the goal of making their children such becomes an almost impossible task.

THE INQUIRY

Context and Participants

The following article is a case study of one preservice teacher and of how her perceptions of herself as one who disliked and feared writing changed through her immersion in reading and writing in a college language arts methods class in a major research university in the Southwest.

The curriculum contained two components, reading workshop and writing workshop. Writing workshops were conducted in such a way as to show students that writing is not just forced labor to which a teacher will mercilessly apply her red pen, but that it is a medium through which one can convey one's thoughts, and that it is a pleasurable experience. The professor used many strategies to convey those concepts and to allay students' fears about writing. She gave students the opportunity to write many short pieces before she asked them to develop a reflexive piece for publication. Throughout the semester, students discussed their writing with their peers and conferred with the professor periodically. Students also completed a literacy history and an "I search" paper (Macrorie, 1986) on a topic pertaining to teaching.

Data Collection and Analysis

In this qualitative study, data were collected using naturalistic inquiry methodology suggested by Spradley (1979) and Lincoln & Guba (1985). The researcher acting as participant observer both taught the language arts methods class and conducted the inquiry. Data consisted of transcripts from pre/post interviews where the researcher asked the students about their perceptions of themselves as readers and writers as well as transcripts from students' response groups and class discussions. Other data consisted of students' literacy histories, students' response notebooks, the researcher's field notes, her conference records, and her reflexive journal. Data were analyzed through the technique of analytic induction (Goetz & LeCompte, 1981).

DISCUSSION

Madelyn detested writing. She equated writing with the writing she had done in school, research papers and standardized test preparation. To her junior high and high school English teachers (and to administrators as well) writing meant state test preparation and nothing else. When at her first interview on January 19, the researcher asked her what she wrote about in high school, she responded,

"What everyone else did...persuasion, informative, TAAS (the state test) papers. They teach more toward the test than teach you how to write. I remember just writing informative and straight forward papers. You didn't put your own thoughts in it. I think all they were worried about was the test."

Madelyn only liked one type of writing, journals, because in them she felt free to write her thoughts and whatever she wanted to write. "Restrictive writing turned me off," she told me in our first interview. "That's having to write what the teacher told you to write about." But another problem associated with teacher-chosen topics surfaced as researcher and Madelyn talked. Because students depended on their teacher for topics, on the rare occasions when the teacher allowed the students to choose their topic, they couldn't do it. "We never knew what to write about," Madelyn stated. "We'd sit there for ten minutes staring at the paper."

When the researcher asked Madelyn about her perception of herself as a writer, she responded, "Okay, I guess. I wouldn't rate myself really high because I don't enjoy it." Her work with her group, however, had begun to have a softening effect upon that attitude. So, too, had teacher/student writing conferences. During the second conference, she and the professor talked about topic choice. Madelyn had narrowed the topic for her anthology piece to two possibilities.

Madelyn said, "Two in mind. First, a big thing in my life is that I was there when my niece was born. That was a neat experience and I never wrote my feelings about that. Also I never remember writing poetry. I noticed George writing poetry. Since Valentine's Day is coming up, I could write a poem about my relationship with my fiancé and give it to him. I've written fiction, but I don't ever remember writing a poem."

Group approval motivated Madelyn. Her group laughed with her on her piece about her wedding. That approval prompted her to write a second piece about her wedding. She noticed, however, that although the group responded with many questions about her wedding, they didn't comment on her writing itself. She decided that perhaps her wedding would be a good journal topic, but not a good anthology one. She came to her professor later with two other ideas, but the poetry still stayed in the back of her mind. A freak ice storm gave her the opportunity she longed for to write the poem she had always wanted to try.

Madelyn commented on how the group session helped her. "When I read my poem to the group, they thought I was the next Robert Frost. It lifted my spirits about poetry. They thought it was really good. I've never thought of myself as a writer. I thought I couldn't do it." In her literacy history, Madelyn wrote of her anthology piece. "My anthology piece was a big achievement for me because it was a totally creative assignment without any limitations. I don't remember writing anything of that nature successfully ever before in all my years of schooling."

Not only was Madelyn successful with her anthology piece, but she was also successful with her "I search" paper. She researched whether or not first graders benefited from a whole language approach to teaching. She was concerned that she wanted to teach first grade but didn't feel that she had a sound knowledge base for teaching beginning reading. Through her "I search" she hoped to develop that knowledge base. In order to do that, she read articles (many of them research articles), interviewed a reading professor, and interviewed a first grade teacher. Then, following the writing process, she did the paper in stages.

While listening to her comments about the "I search" during her final interview, the researcher couldn't help but think about the dislike for research papers which she expressed during her first interview in January. In May she said, "The 'I search' wasn't so overwhelming. I think I learned more. You internalize information you learn. An 'I search' makes you get out and do it. Regular research papers don't emphasize interviews. The 'I search' is more fun and less stressful than a typical, technical research paper."

Did Madelyn grow as a writer during the semester? In her final interview she said,

"I feel like I can write poetry now. Also in this class I've taken a lot more time with the things I've written than ever before. I still want to do a good job even though we weren't as focused on the grades. It seems that I want to write more. I'm not scared. I used to be afraid and didn't want to write. I'm more able to write and I'm not as afraid."

And has Madelyn's perception of herself as a writer changed?

"Yes, I definitely see myself as a writer. In other classes we didn't get to write for ourselves. In this class, instead of writing hogwash for your professor, you got to write for yourself. You showed us another side of writing which could be more personal. Even the 'I search' was more personal. You don't see yourself grow when you're writing to please someone else. This class helped me because I was writing to please myself."

RESULTS

That Madelyn's perception of herself as a writer changed during the course of the semester is obvious from the above data. Reading/writing workshop seemed to precipitate that change. Six conditions for engagement in writing have been identified in many works by scholars in the field of writing (Hansen, 1987; Graves, 1983; Harste, 1988; Atwell, 1994; Calkins, 1994). They are (a) immersion in reading and writing, (b) social interaction, (c) response, (d) ownership and control, (e) time, and (f) a risk-free environment. In this study these conditions were created during the writing workshop, and they seemed to account for the profound changes that Madelyn experienced. In Madelyn's case, all the conditions worked together to mold her into one who writes.

Because of the design of the course, Madelyn was totally immersed in reading and writing. Throughout the semester students wrote three major pieces, a literacy history, an anthology piece (which was published, hard bound, and distributed to each class member), and an "I search" paper. They wrote at least fifteen minutes daily. Students knew they would write each class period. They also knew that if they were to finish class requirements, they would have to write at home. Students were encouraged to set aside a specific time each night for writing. When writers know they'll write daily, their brain takes over their writing for them (Graves, 1983).

Madelyn's did that. When the opportune time arrived in the form of an ice storm, Madelyn's mind, primed and ready, constantly thought "writing." She only had to pick up a pen. Immersion in writing had done the rest.

Many professional writers say that writing is a solitary act that one cannot do alone. How true that is for emergent writers like many university students. The creation of her poem alone did not sufficiently change her opinion of herself; the acclaim from her group, however, did. Not only did her group support Madelyn's efforts with comments like George's ("That was tough, man."), but they also made specific comments about her writing. "This is so unique. 'Every blade of grass is kissed by winter.' We never talk about winter kissing anything. It's always killing it. That's so good." Students commented about Madelyn's use of adjectives and personification and even her verbs. "I like the use of 'laminated,'" one told her. The specifics came at a meaningful time for her, and they made all the difference in Madelyn's perception of herself as a writer.

So, too, did the response she received from her professor. Response from a knowledgeable, caring teacher is critical for the development of students as readers and writers. Teachers and students alike confuse the terms "response" and "feedback." They can be synonymous; yet all too often we think of "feedback" as the copious notes in red that well-meaning teachers spend hours writing on students' compositions. Although technically a form of

response, it's deadening to students. Who among us can't remember receiving at least one "bleeding" paper in their school career? Not only did the papers bleed, but the students' hearts bled, too. Response can be so much more than that.

A fifth condition for engagement in reading and writing, time, weaves itself throughout the reading/writing workshop. In her class Madelyn was given time to truly learn. She received time to carry a paper through the writing process, to meaningfully converse with her neighbors about their reading and writing, and to become literate through meaningful engagement with text. Through having time to engage in reading and writing, Madelyn truly learned.

All of the above conditions for engagement occurred in a risk-free environment. Soon Madelyn came to realize that she controlled her learning. In such a risk-free atmosphere she lost her fear of writing, and she began writing to please herself. Madelyn blossomed. She discovered that she had underestimated her abilities and that she really could produce self-satisfying, creative, and enticing work. In an environment where students feel free to make mistakes, where they speak freely with teacher and other students, and where growth is applauded as a natural extension of reading and writing, students grow tremendously. They astound themselves with what they produce. And in the process, they become readers and writers.

IMPLICATIONS FOR TEACHER EDUCATORS

With the emphasis in standardized testing and accountability in high schools, and the pressure on schools to perform well, many teachers feel compelled to teach to the test. In order to resist such pressures when they become teachers, university preservice teachers' attitude about themselves as writers must be positive, and they must think of themselves as ones who write. They must understand that in order for students to write well, they must be nurtured as writers (Ellis, 2008; Romono, 1987). This study seems to suggest that immersion in a reading/writing workshop during their preservice class work will strengthen their perceptions of themselves as writers and will equip them with teaching techniques that conform to the published writers' process (Emig, 1969; Graves, 1994) rather than the artificial prompt writing mandated by many teachers in preparations for standardized tests.

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MIS-EDUCATIVE: READING RITUALS

Tammy C. Brown

University of West Alabama

ABSTRACT

Understanding what influences images elementary students create about science has been researched for 30 years. This researcher sought to understand how the way science is presented in school influences images elementary students hold about science. What images of science do 2nd and 4th grade students portray through dialogue as they experience read alouds of informational science texts? Drawing upon symbolic interaction within a sociocultural framework, this qualitative study began during the summer of 2005 and continued into the fall of 2007. Primary data included transcripts of students' dialogue during sessions, interviews, observations, field notes, demographic data, and assessment data. Observations of the students and teachers in the context of their school environment were also made throughout the 2006-2007 regular school year. One emergent theme suggests the informational book reading sessions were ritualized such that the students viewed the experience as a reading exercise only and not being a scientist.

INTRODUCTION

Unarguably, reform is an historic part of the educational system in the United States and especially in the poorer southeastern states. More specifically, this is true of science education (American Association for the Advancement of Science, Project 2061, 1993; National Science Education Standards, 1996; National Science Foundation, 2006, pp. 1-8; U.S. Government, 2006).

Currently, reform movements sweeping across the southeastern states in response to the *No Child Left Behind Act 2001* Legislation, are various reading initiatives to target populations of students that are seemingly being left behind. To try to address the needs of these identified populations more emphasis during the school day has been placed on reading. Time demands on the classroom schedule are being affected by reading legislation passed in response to *No Child Left Behind Act 2001* (U.S. Government, 2006). A 2006 article published in the *The New York Times* stated:

that since No Child Left Behind legislation was passed, 71% of the nation's 15,000 school districts had reduced the hours of instructional time spent on science and other subjects to allow more time for reading and math. (Dillion, 2006)

Shocking, given that Weiss, Pasley, Smith, Banilower, and Heck (2003) national survey (data collected prior to NCLB) reported that nationally elementary teachers on average taught science for only 17 minutes per day.

Seen through the wider socio-cultural framework, there are other influences that compound the problems mentioned above—among these are federal, state, and local mandates (Carter, 2005; Popkewitz, 1992), that make daily demands on the classroom schedule such as the current reading initiatives (Popkewitz, 1992). Popkewitz (1997) says that schooling is really about social regulation and power. On the one hand, powers want increased student achievement and on the surface it looks as if they are truly implementing standards to see that this comes to fruition. However, as pointed out by Carter (2005), the reforms actually stifle the progress of student achievement. According to McLaren (1986) “what must be critically uncovered are the latent connections between educational rituals and the ways in which inequality is maintained in school settings” (p. 60).

To apply these ideas to relevant happenings in education, look at current state initiatives designed to have all students reading on grade level. Thus, students have been bombarded with explicit reading instruction during the school day to help them so that they may in turn be able to do better in all areas of school and work. However, this reform movement is decreasing the time they are exposed to science, social studies, and art (Dillion, 2006). Therefore, the reform is limiting student opportunities to learn content and to think critically in the areas of science, social studies, and art, and last, to learn to question the world around them.

Popkewitz states, “We need to understand how social goals, articulated through state policies, become reconstituted as they are realized in the institutional practices” (1992, p. 290). Framed in the broader socio-cultural theory, human interactions with and within the physical, social, and abstract objects of the culture make symbolic interactionism appropriate for exploring this study's question: What images of science do second and fourth grade

students portray through dialogue as they experience read alouds of informational science texts? It was hoped through examining student voices related to their science images as viewed from reading informational texts that a better understanding of their images of science would lead to more informed curricular choices for teaching science in the classroom.

REVIEW OF THE METHODOLOGY

This case study is framed by symbolic interaction between students and informational books and the dialogue students construct around the objects while in small groups. A small, rural, southeastern, Title I elementary school was the setting for this exploration. The study explores the images that second and fourth grade students portray and voice before, during, and after participating in informational book sessions. The study took place beginning in May 2005 while students were enrolled in a summer program at their school and continued into the fall of the 2006-2007 regular academic school year.

Data collection included informational book sessions' transcripts of students' dialogue, interviews, observations, field notes, demographic data, and assessment data. The researcher conducted three sessions with each of two student groups, spending thirty minutes observing, listening and taping students in each session. Each student was interviewed later in the day after participating in the informational book session. The researcher also met with reading coaches at the school, parents, school faculty, and the selected students' teachers. Observations of the students and teachers in the context of the school environment were also made throughout the 2006-2007 regular school year. The results led to a research-based ritual framework for interpreting informational book sessions.

RESULTS

A Research-Based Ritual Framework for Interpreting Informational Book Sessions

After the 1970s, anthropologists, sociologists, and other researchers began to explore the term *ritual* outside the context of its historical meanings (Grimes, 1982; Moore & Myerhoff, 1977). Today, there is still a lack of consensus on a single definition because the term *ritual* is used by researchers from differing contexts (Grimes, 1982). A large number of studies on rituals have been conducted outside the school culture. McLaren (1986) has examined schools and more specifically instruction within the schools from the stance of rituals. McLaren's (1986) research focuses on middle schools, teachers, and staff from a critical theorist's lens while focused on society's goals of producing good workers. His critical studies have focused on schools' goals of producing working citizens and the religiously trained Catholics.

Informational book session transcripts, videotape transcripts, researcher field notes, observations, and interview transcripts were interpretively analyzed for social acts and words which led the researcher to draw upon characteristic of the nature of rituals (Grimes, 1982; Moore & Myerhoff, 1977). Grimes (1982) states, "Ritualizing transpires as animated persons enact formative gestures in the face of receptivity during crucial times in founded places" (p. 541). Grimes sets out to provide a guide which presents rituals as follows:

repeated (e.g., every Sabbath);

sacred (related to the Holy; of utmost significance);

formalized (consisting of prescribed, unchanging movements such as bowing or kneeling);

traditional (not being done for the first time; claiming an ancient history or authorized by myth); and

intentional (nonrandom actions, done with awareness of some reason or meaning). (p. 541)

For Grimes (1982), rituals are intentional, nonrandom actions, completed for some purpose. They are also what he refers to as a tradition. A book is often a symbol associated with education and school, just like the American flag is a symbol of America. Reading has been historically a part of the tradition of attaining the three R's—which stand for reading, 'riting, and 'rithmetic. Historically and currently, learning to read is at the heart of the elementary school curriculum as observed by the daily block of two and a half hours during the day devoted to reading.

Grimes (1982), points out that a ritual is something that is not done only one time. Being read a book, though it was the first session with the researcher, was not foreign to the students. As social actors, they assumed their role of listeners without direction by the researcher. They appeared to know what to do and how to act.

Rituals are usually associated with religious ceremonies, rites, and specific cultural events; however, rituals are an important part of school culture, though often referred to in terms of tradition and routine (Goodsell, 1989). It is uncommon to hear the term *ritual* associated with the day-to-day events of the classroom and more specifically

classroom instruction (McLaren, 1986). However, if one applies the characteristics of rituals that Grimes as well as Moore and Myerhoff (1977) offer, it can be seen that many of the events that surround objects in the school classroom environment are rituals.

The following definition and characteristics of a ritual that Moore and Myerhoff (1977) propose were a foundation for interpreting the voice and actions of the students in the reading and inquiry sessions. The characteristics of ritual include repetition, role playing, stylization, order, staging, and social meaning. Moore and Myerhoff (1977) list the following characteristics:

Repetition: either of occasion, content or form, or any combination of these.

Acting: a basic quality of ritual being that it is not an essentially spontaneous activity, but rather most, if not all of it is self-consciously "acted" like a part in a play. Further, this usually involves doing something, not only saying or thinking something.

"Special" [quotes in original] behavior or stylization: actions or symbols used are extra-ordinary themselves, or ordinary ones are used in an unusual way, a way that calls attention to them and sets them apart from other, mundane uses.

Order: . . . are by definition an organized event, both of persons and cultural elements, having a beginning and an end . . .

Evocative presentational style; staging: . . . intended to produce at least an attentive state of mind, and often an even greater commitment of some kind; ceremony commonly does so through manipulations of symbols and sensory stimuli . . .

The "collective dimension" [quotes in original]: by definition collective ritual has a social meaning. Its very occurrence contains a social message. (pp. 7-8)

The following section describes how ritual characteristics form an interpretive foundation for describing students' actions and dialogue within the informational book sessions.

Ritual Characteristics in Informational Book Sessions

Characteristics that define a ritual are presented throughout rich narratives centered on dialogue from informational book sessions. As an interpretive foundation, the researcher has woven within the narrative the characteristics of a ritual. The narratives of informational book sessions represent all the characteristics needed to constitute a ritual. These characteristics include: (a) staging, (b) social meaning, (c) role playing, (d) order, (e) stylization, and (f) repetition. The characteristics of a ritual were coded throughout informational book sessions' transcripts and were examined alongside the interpretive narratives of students' dialogue when engaged with the symbolic object, in this case an informational book whose purpose appears to trigger ritualistic meaning and set expectations of what is to come from the students' perspectives.

Staging

According to Moore and Myerhoff (1977), "Staging" refers to the way symbols and other such stimuli are chosen and used to command attention (pp. 7-8). The researcher spent hours staging (as do teachers) the read-aloud sessions conducted. The narrative of an informational book session continues with a description of the staging by the researcher. This is important to discuss at the beginning of the narrative because the staging of the informational book sessions in the school setting directs the students' attention to specific topics and evokes certain types of actions.

This staging was done by carefully selecting symbols, award-winning books on life science topics that were developmentally appropriate, engaged and motivated the students. The researcher "staged" the read aloud session by selecting the book and rehearsing it before the read aloud performance for the small group of students (Moore & Myerhoff, 1977, p. 7). The physical arrangement of the room semiotically held meaning for the students. "They entered the room and without instruction walked toward the kidney shaped table and chairs in the room, sat across the table one to a chair, faced the single chair on the other side where the researcher planned to sit, and began to ask questions" (Researcher Field Notes, 2005).

Social Meaning

Moore and Myerhoff (1977) state that form and content of the ritual has “social meaning” (p. 8). The ritual imparts meaning to the group by transmitting a message to them. Grimes (1982) utilized the term *sacred* (p. 541). He states a ritual is sacred because it holds the “utmost significance” (Grimes, 1982, p. 541).

Upon entering the staged classroom, the students acted out their expected roles by seeing the “real world” objects. Each of the objects (teacher, chairs, table, and book) symbolically portrayed a meaning of student and teacher roles within a school setting. The students knew their places and that of the teacher by recognizing and interpreting meaning through the arrangement of the physical objects in the classroom (Blumer, 1969). The researcher staged this arrangement. As soon as the researcher was seated, the students immediately turned their attention to the researcher and the book she held face down.

Role Playing

Role playing, “acting,” is another characteristic defining the term *ritual* (Moore & Myerhoff, 1977, p. 7). Moore and Myerhoff say a ritual is a “contrived activity” (p. 7). What is more, the “words and actions of the ritual are not spontaneous, but are acted out” (p. 7). Teachers purposefully engineer the setting of the read-aloud around the script, in this case the book. They may preview the chosen book chosen and think of activities and/or questions to ask. However, even though the activity is not spontaneous, it is still being formed anew as a form of joint action (Blumer, 1969). The roles are set and carried over from the ritual and power intertwined with the notion of school and society. The teacher as the authority and leader is listened to and obeyed. Therefore, each observation and videotaped session revealed the teacher/researcher in front of a group of students with a book. The teacher was usually seated across from the group of students in the informational book sessions. She usually had a book waiting to be read. The dialogue and actions of the students revealed their role as listeners and actors trying to construct meaning about the book for themselves and with their peers by way of basic process skills.

Order

More acts of well-established read aloud ritual traits are evident as the researcher asks the students if they are ready. This statement marks the official unspoken beginning of the reading of the book. Rituals by definition are “an organized event, both of persons and cultural elements, having a beginning and an end” (Moore & Myerhoff, 1977, p. 7). Similarly, Grimes (1982) uses the term *formalized* to describe rituals (p. 541). According to Grimes, *formalized* consists of movements that are prescribed and unchanging. Upon seeing the cover of the book for the first time, the students begin to construct the joint action about meaning around the informational book. Blumer (1969) states:

The nature of an object--of any and every object--consists of the meaning that it has for the person for whom it is an object. This meaning sets the way in which he sees the object, the way in which he is prepared to act toward it, and the way in which he is ready to talk about it. (p. 11)

The students upon seeing the object, the informational book in the hand of the teacher, recognize and conjure up the meaning that it has for them to inform how they will act.

Stylization

Stylization within a ritual activity refers to the fact that it is different from the activity outside of the school community in every day life. Moore and Myerhoff (1977) state, “Symbols used are extra-ordinary themselves, or ordinary ones are used in an unusual way, a way that calls attention to them and sets them apart from other, mundane uses” (p. 7). In other words, it is uncommon to see a person such as a teacher or instructor reading a book to a group of individuals outside of some sort of instructional setting like a library, media center, or Bible class. The researcher staged the use of this book in the session and called attention to the book by choosing it to read to the students, and revealing the illustrations and text on the front cover. This action by the teacher resulted in a flurry of student activity that can be seen in the interactive process of the joint actions of the students.

Revealing the illustration on the cover of the book stimulated students’ dialogue and through joint actions with other group members the students began to make sense out of what they were observing. During this joint action, the students reveal predictions and inferences about the book. Students are constructing meaning for themselves within the ritual of being read a book, because the book was presented in order to command attention from the students.

Students' thought processes have been channeled into only thinking about the items on the page created by the way the text is structured and formatted. The "highly structured, rule-bounded" activity of being read the informational book engages them to follow along with the text and answer the questions posed (Moore & Myerhoff, 1977, p. 8). This behavior is a stark contrast to the dialogue of the student-to-teacher before the text was read aloud. Before, the students were asking questions about future events, making comments, wondering about lunch, when they were going to come to the researcher again, and who would attend the sessions. Now, students were concerned only with the text and where it would lead them. As Goodsell (1989) notes, "Ritual hence presents an arresting scene that commands attention and heightens meaning. Also its engaging nature deflects the mind from questioning the reality offered or considering alternative realities" (p. 162). Once the ritual is begun, students focus their undivided attention on the object, the informational text, and are engaged by the book and one another to create meaning.

An informational book, the main symbolic object in this session, is a means around which the students begin to socially construct meaning through joint action. As Blumer (1969) states, "It is the social process in group life that creates and upholds the rules, not the rules that create and uphold group life" (p. 19). The students continuously demonstrated through their unprompted actions and dialogue the ritual characteristics of a read aloud session.

The students came in at the beginning of the session and without being told took a seat in a chair across the table from the teacher. The students constructed a conversation that was not specifically focused on the text that the researcher termed *settling down*. The researcher staged the beginning of the session by showing the cover of the informational book. The official beginning concluded with the introduction of the book's title and author. The read aloud then pursued. Each page was read, and the students made comments or asked questions in between the readings of the text. The end of the session was noted as the teacher finished the last page, questions/comments were made, and students returned to previous activities outside of the room. This order was typical of all the informational book sessions. No rules or procedures were imposed upon them before, during, or after the sessions. The presence of objects initiated joint action (i.e., a teacher/researcher, a book, peers, chairs) as the students drew upon knowledge that guided their actions as the session unfolded.

The students followed through with actions influenced by the symbols and format of the text they were being read. However, although this occurred during the sessions in this study, follow-up observations of classroom read-alouds and interviews with classroom teachers needed to be conducted in order to confirm that the same characteristics of a ritual that were coded in the informational book sessions' transcripts were also present within the context of a read aloud in the regular classroom during the regular school year. It was important to validate that the characteristics just discussed were showing up in the course of the regular classroom read aloud. It was also important to observe to see if the act of being read a book out loud was repetitive in the context of the regular school environment. The findings of these observations and interviews are presented in the next section.

Repetition

Moore and Myerhoff (1977) as well as Grimes (1982) agree that repetition is an essential trait of a ritual. Repetition could be "either of occasion, content or form, or any combination of these" (Moore & Myerhoff, 1977, p. 7). The following describes that being read a book in elementary school is a repetitive social act.

Data analysis across the sources portray that being read a book in the school environment took place in each class every day. Read-alouds were observed two times in a single day in the same class on some observation days. Therefore, based upon the patterns in the data, being read a book meets the characteristic of ritual in the sense of repetition as defined by Moore and Myerhoff (1977) and Grimes (1982).

Through researcher observations, field notes of the school environment throughout the day, interviews with school faculty, and attendance at faculty meetings, it was clear that reading to the students on a daily basis was a significant event and indeed, has a "social message" (Moore & Myerhoff, 1977, p. 8).

The importance of reading and being read to on a daily basis is presented as a very important ritual, a must, a mandate. The students, teachers, and parents were aware of the importance of being read to on a daily basis. Interviews with school faculty and parents, along with observations of the school environment recorded throughout the researcher's field notes substantiated that reading was the most important daily event typified by the "sacred" two hour block of time allotted to it every day symbolized by schedules posted outside each teacher's door (Grimes, 1982, p. 541).

Similar to repetition, a label assigned in the defining of a ritual by Moore and Myerhoff (1977), Grimes (1982) uses formalized to describe the characteristic of a ritual which consists of movements that are prescribed and unchanging. The day-to-day event of being read a book, as was noted during the researcher's visits to the classrooms, was formalized. Classroom observations conducted during the school year document teacher read-alouds occurring within the context of the school classrooms. Grimes (1982) states "Rituals are commonly spoken of

as paradigms, models, or structures. They are regarded by anthropologists as ways of classifying the world” (p. 542). All informational book sessions represented the trait of order recognized within rituals. According to researcher field notes, the order consisted of the teacher indicating it was time to read. The students were either directed where to sit or knew where to go when cued. The teacher with book in hand made his or her way to the front of the group. The beginning stage included the introduction of the book’s title and author. The read aloud then pursued, with the teacher reading each page in order. The end of the session was triggered as the teacher finished the last page, questions/comments were made, and students returned to their seats or other activities upon direction from the teacher. Instances of teacher read-alouds observed by the researcher in the school typify order and formalization just as the informational book sessions in this study.

On many occasions, the researcher inquired as to why certain books were chosen by teachers to be read aloud to students during the school days throughout the year. The books, according to statements made by teachers in interviews, were chosen to go along with themes, introduce themes, motivated students to read more, and/or to model and demonstrate the joy of reading. Even though the teachers staged a new read aloud each time, the formal properties of the read aloud reading ritual were the same each time. These properties were (a) staging, (b) role playing, (c) stylization, (d) order, (e) social meaning, and (f) repetition.

The sessions’ data support the notion students were unsure about whether they were acting as scientists and performing skills of a scientist while participating in the informational book sessions. Clearly the reading ritual interferes and confuses the students.

DISCUSSION OF THE RESULTS

Reading Ritual? Dewey’s Mis-educative Experience

The ritual of reading is viewed by young students as reading only, not being a scientist. Reading is a well established ritual conducted within institutions called school and in spaces of classrooms. The ability of the students to see themselves as scientists participating in science by being presented science content via reading an informational text appears problematic in this work. According to Moore and Myerhoff (1977) the ritualistic properties students are exposed to through schooling characterize reading as a ritual, confusing students about where science fits into the event of reading. The ritual of reading books actually appears to interfere with the students’ viewing the activity of reading as something scientists engage in as part of their work. The staging, stylization, order, role play within the act of reading, along with the repetition and social meaning of reading in the sociocultural context of the school environment all converge on the students’ developing images of science and seem to prevent some students from viewing reading as a part of science. Because the students are exposed to the ritualistic reading exercise so often during the school day they relate “reading” in other settings as reading. They only relate the words in a text as something to be read. There is no ambiguity in students’ minds as to whether or not they are performing or participating in the ritual act of reading. Informational science book sessions used in this study paralleled the ritual of being read an informational book carried out within the classroom, so students clearly identified what they did in the session as one of reading, but were uncertain if they were simultaneously being a scientist.

According to the National Science Education Standards (1996), scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. One inquiry activity involves examining books and other sources of information to see what is already known. Therefore, reading informational books is considered a very important inquiry activity and one of the diverse ways in which scientists study the world and communicate findings or explanations. Findings from students’ interviews in the informational book sessions revealed that at best, students were unsure how being part of a read aloud group, communicating in the group, and listening to an informational science book constitutes being a scientist.

The students did not think critically about the information being read from the informational texts. In addition, the established roles of teacher and student did not encourage students to question the source of the information in the books being read. The reading ritual focuses on dissemination of information rather than a form of open inquiry for the students. The ritual of reading was a form of reinforcing the social meaning that reading and knowing how to read is what is important, not understanding and questioning the world around them. In short, they were concentrating so much on understanding the text that they were unable to critically think about and question the information being presented or realize they were being scientists.

McLaren (1986) points out that the life of school instruction bears a likeness to rituals. He continues by stating that over the years educators have discussed that rituals exist in educational settings. A ritual act, the act of reading, was uncovered during the course of this study. It was found that students’ images of science were being clouded by the reading ritual.

This theme evokes a powerful image, the presentation of science through reading and its ritualistic traits does not enable students to view reading as a scientific activity of inquiry, nor does it foster students' image that this is an activity used by scientists in the world outside of the school environment. In a quote from Dewey (1938) he says:

Some experiences are mis-educative. Any experience is mis-educative that has the effect of arresting or distorting the growth of further experience. An experience may be such as to engender callousness; it may produce lack of sensitivity and of responsiveness. Then the possibilities of having richer experience in the future are restricted. (p. 12)

Throughout the informational book sessions, dialogue and actions revealed that the experience of the reading ritual is mis-educative and restricting the growth of a realistic image of science. To utilize the curriculum of informational books so that it is not mis-educative, as defined by Dewey, the first theme necessitates communication with teachers and future teachers the need to explicitly teach students that reading is an important part of what scientists do in their jobs. Explicitly teaching students about the different fields of science and what scientists in those fields do in the real world is essential if young children are to develop more comprehensive and realistic views of science and scientists.

Reading Rituals Nationally and Internationally

This study described the ritual of reading within the context of one school. The sociocultural influences of this small, rural school in the southeastern part of the United States impacted how teachers taught reading in the classroom. Reform movements' demands, pressure from administrators, and expectations of parents for all students to be reading on grade level, and the impact of the state initiatives on time needed to effectively teach reading impacted how teachers taught reading as well as science each day. Are similar sociocultural influences, such as demands for increased reading achievement, shaping how teachers teach reading across the nation? The world? Is the ritual framework of reading presented in the context of this study applicable to other settings nationally and internationally? Most importantly, given the impact of the reading ritual on students' images of science, seen in the small sample of students in this study, more studies in the area of school rituals should be conducted in order to locate sources for transmission of ideas about science, whether implicitly, explicitly, or by not teaching science at all in the classroom. These transmitted messages about science need to be located and replaced with a more constructive process for learning science.

These implications are proposed as tools for gathering more information about students' images of science so that they can be understood at a deeper level and inform the process of choosing curricula in schools to help students learn about science in ways suggested by the NSES (1996). Students must be presented a clear picture of what scientists do out in the field. The development of these skills and the knowledge base about the field of science will give students an opportunity to choose science as a profession. Getting more students interested in the field of science and becoming scientists is critical in a time when the country needs the field to grow, numerically and in diversity, both gender and race.

CONCLUSION

This qualitative study framed by symbolic interaction gave the researcher a small glimpse of students' images of science and to some degree how those images were shaped by sociocultural influences of the school environment. This study seems to suggest that the rituals embedded within the culture of the school interfere with images students are constructing about science. Subtly, curricula choices made by teachers, principals, and local educational agencies for teaching reading are limiting the time devoted to science in the elementary school classroom. More time is spent on reading about science, which is only one part of what scientists do in the real world (and one students don't associate with science), and less time on conducting investigations which students associate with science. It is important to be aware that only reading informational books to students in the name of science is not enough to equip them with the skills they need to develop images of science and scientists that might encourage them to consider being a scientist in the future. Our goal as educators is to choose science curricula that give students the opportunity to make their own sense of the world and to give guidance when needed and where needed.

Therefore, one questions if through the promotion of reading improvement, policies are keeping the status quo by oppressing students in the area of science by limiting their access to varied opportunities to learn about science throughout the school day. *No Child Left Behind* was put in place to help *all* students succeed in all areas. However, this reform movement is making it very difficult for students to be successful in science and want to choose it as a

career path because of the attention given during the school day to reading and math. Critical theorists, such as McLaren (1986), would say that keeping those poor struggling readers from becoming scientists is the intent. Under the guise of rituals and reform circumstances remain the same for students who have the greatest need. The current reform movements keep administrators, teachers, and other agencies focused on creating good readers. This focus on the ritual of reading and producing good readers leaves little room for questioning what education should really be about for students. Through reform and the ritual of reading, educators keep the social order as it is for those who are best served--namely the reform makers. The implication then is to break the cycle of keeping the status quo by being aware of rituals and reform movements and seeing them for what they are, mis-educative.

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WHO SAYS PARENTS CAN'T TEACH READING?

Elizabeth Jane Davis

North Carolina A&T State University

David Boger

North Carolina A&T State University

Ioney James

North Carolina A&T State University

ABSTRACT

This study describes the outcomes of a pilot research project designed to engage parents in the teaching of reading such that there would be a seamless transition in teaching between school and home. A series of family literacy workshops were led by reading professors engaged in the national Reading First Teacher Education Network (RFTEN) research project, and included teachers, parents and students. Additionally the project established home libraries for participating students by sending more than 6,000 books home with the participants. The results of the project were a significant increase in reading proficiency for participants, increased parental involvement in student learning, and the use of similar strategies for teaching reading by teachers and parents.

INTRODUCTION

The transition from home to school is usually easy and fun. Indeed, most young children are excited at the thought of beginning school because, as many researchers and educators agree, the preparation for school begins at home. The home is where the first communication occurs, where the first story is shared, and where children's curiosity and creativity is nurtured (Morrow, 2001). In fact, for some children, formal instruction in school is actually an extension of the literacy activities initiated in the contexts of the home (Morrow, 2001; Strickland & Morrow, 1990; Taylor and Dorsey-Gaines, 1989; Heath, 1983). However, some children enter school with little prior knowledge about the concept of print, thus lacking the literacy experiences necessary to adequately perform literacy tasks (Heath, 1983, Burns & Griffith, 1998). Unfortunately, these children are usually labeled limited, at-risk, unready, developmentally delayed, immature and sometimes slow. Because some children are classified according to these labels, teachers often hold pre-conceived ideas about their potential, and the pace of instruction is sometimes slowed down for them (Allington, 2007).

This study describes a highly successful initiative called the "Madison Literacy Project" that offered parents of struggling readers strategies to teach their children at home. The essential goals of the "Madison Literacy Project" were 1) to provide a group of early learners in kindergarten, first and second grade classrooms who were at-risk with a solid literacy foundation by supplying them with an abundance of quality literature; 2) to provide reading skills to parents in teaching reading enabling them to use the same strategies at home that the teachers use at school; and 3) to create a seamless transition in the teaching of reading between home and school. We held the strong belief that if students are given opportunities to read a variety of texts at school and in the comfort of their homes with their parents, they would not only develop a healthy appetite for books, but make significant strides in their academic development (Teale & Sulzby, 1986). In addition, we considered that if we invited parents to participate in the school reading program by teaching them how to teach their children at home, their participation would help their children achieve grade level or better in reading proficiency.

THEORETICAL BACKGROUND

Over the past few decades, literacy development has been targeted during the pre-school years as an indicator of future academic success. Numerous studies have linked specifically a strong-home-school relationship to students' school success (Heath, 1983; Taylor and Dorsey-Gaines, 1989; Morrow, 2001, Strickland, 2002, Strickland, et al., 2004; Baker, 2003 Purcell-Gates, 2000). The essential argument is that students' success is closely linked to parents and teachers sharing similar literacy vision and work collaboratively to provide effective instruction for students (Fredricks & Ransinski, 1990; Epstein, 1984; Strickland & Morrow, 1990; Fullan, 1982; Paratore, Homza, Krol-Sinclair, Lewis-Barrow, Meizi, Stergis, and Haynes, 1995). The literature also describes

various ways by which schools seek to harness parents' involvement in their children's academic development. Some of these strategies include newsletters, individual conversations and parent-teacher education. But as Guastella (2004) cited Davis, (1991) as saying, "if school gives parents the tools of craft, parents will be able to interact with their child more confidently and motivate him or her to high achievement" (p.79).

A substantial body of research continues to indicate a poor start in reading impacts learning throughout the K-12 matriculation (Juel, 1988; (Rashotte, Toregesen, & Wagner, 1997; National Reading Panel, (1999). As struggling readers proceed through the grades they have ongoing reading problems which often result in such negative consequences as grade retention and assignment to special education classrooms (Rashotte, Toregesen, & Wagner, 1997; National Reading Panel, (1999).

The Madison Literacy Project was based on research which recognized literacy skills that are closely linked to students' success in reading. These skills include phonemic awareness, phonics, fluency, vocabulary and comprehension (NAEP, 1999). Also relevant to this study is research that identifies parental involvement as critical to students' academic development (McTavish 2007; Teale & Sulzby, 1986; Morrow 1983). Other research informs us that children who come from literacy rich environments learn about the concepts of print from parents and caregivers who model literacy practices and engage them in literacy activities (Purcell-Gates, 2001; Morrow, 2001; Taylor and Dorsey-Gaines, 1989). Some of the literacy practices that occur in the home include storybook reading, alphabet games and songs. Some parents even offer their children direct instruction in the relationship between spoken and written words (Roberts, 2008; Purcell-Gates, 2001; Stipek & Ryan, 1997; Morrow, 2001). Such literacy practices, as the literature indicates, provide a strong literacy base on which to begin formal instruction (Snow, 2001, Heath, 1983; Taylor and Dorsey-Gaines, 1989; Morrow, 2001, Strickland, 2002, Baker, 2003).

ABOUT THE PROJECT

The Madison Literacy Project was made possible because of the offering of a small sub-contract grant provided by the National Council for Accreditation of Teacher Education and the Reading First Teacher Education Network (NCATE/RFTEN). As investigators for the grant project, we opted to undertake the Madison Literacy Project because it had the capacity to engage all stakeholders in the literacy development of children. We chose to focus on the literacy enhancement of a group of struggling beginning readers in kindergarten, first and second grade classrooms. The project sought to get children in kindergarten, first and second grades to achieve grade-level or better reading proficiency as well as to involve parents in the reading program at Madison Elementary School.

ABOUT THE SCHOOL

Madison Elementary School serves 456 students of which 38% are eligible for free and reduced lunch. The student population consisted of 28% African-American, and 61% other, of which approximately 13% speak English as a second language. The school was selected because of its proximity to a large influx of immigrant minorities in the community.

GETTING STARTED

To begin the Madison Literacy Project we met with the principal and shared the prospect of enriching their literacy program in some way that would involve parents in the teaching of reading and to enhance the reading performance of the struggling readers in the kindergarten to second grade classrooms. The participants would be provided quality texts that would enable them to build their own home libraries. Since the role of parents is vital to a child's success, we recognized the need to invite parents to attend a series of family literacy workshops where we would model for them how to use literacy strategies to promote their child's academic success. The principal, teachers, curriculum specialist and staff enthusiastically accepted the offer.

Because of limited funds we considered how to creatively provide an adequate number of books for the students to take home. Early in the planning sessions, however, one of the teachers suggested that we purchased a site license from a web-based company which allows the downloading of books and other literacy material for students. This provision would make available a wide range of leveled books in English, Spanish and French. We decided to pay for a one-year subscription for each teacher, K-5, which afforded them the opportunity to access the website and to select and download books for their classes.

In order to create enthusiasm for and interest in the project, we decided to use the school mascot, the "Mustang", and we thought that a western theme might be appropriate. The teachers, staff and students scheduled a series of family literacy workshops led by a NCATE/RFTEN reading consultant from the University of Texas. The

first workshop was called “**Reading Round-Up**”, the second workshop was called “**Mustang Trail Ride and Campout**” and the third workshop, “**Mustang Reading Rodeo**”. Over 200 hundred parents and children were in attendance at the first family literacy workshop. As a result 101 K-2 students were enrolled in the project.

METHODOLOGY

A quasi-research model was developed with K-2 students whose parents enrolled them at the first workshop as participants. The control group was the set of students in the K-2 classrooms not enrolled in the project. Both groups used the same strategies and books in the classroom, but the participants also received instruction from their parents and books to take home for their home libraries. Teachers encouraged participation by personal recommendation to parents of struggling readers and ESOL student. However, enrollment in the project was not limited to struggling readers but instead was open to all K-2 students; therefore a few good readers also took advantage of the opportunity. The project was further advertised through flyers sent home and notices posted at the school. A total of 101 students enrolled in the project as participants.

Parents and teachers attended three workshops which presented strategies for teaching each of the five elements of teaching reading identified by scientifically based reading research (SBRR). Those elements are: phonemic awareness, comprehension, vocabulary, phonics and fluency. Each workshop focused on two of these elements with comprehension being presented twice on the advice of the teachers and the curriculum specialist at the school.

Following each workshop, parents and children practiced the strategies just learned in the workshop under the supervision of University and school faculty, and then practice the strategies at home under the supervision of the parent. Each cycle of teaching strategies included the workshop and practice with supervision, then a set of five books each week for four weeks including the workshop week, that were specifically selected and leveled for each student. Selection criteria were: 1. reading level of the student; 2. interest area of the student and unit theme being taught in the classroom; 3. native language of the student; and, 4. suitability of the books to the strategies taught in the workshop just held.

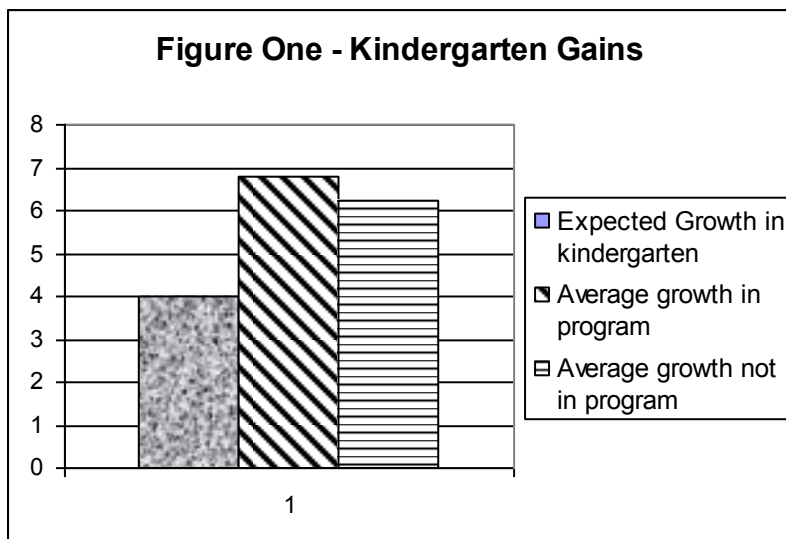
Comparisons of the control group and the experimental group were made using the scores from the reading tests administered to all K-2 students in Guilford County School System. Scores from the test given in January were used as a baseline, and results were obtained from the scores of the tests administered in May after the end of the project. Qualitative data was obtained from surveys of parents, teachers and students in the project.

RESULTS

Our research question was: Does parental involvement in the school reading program as teachers of reading make a significant difference in the reading level of their student? The results were significant and positive.

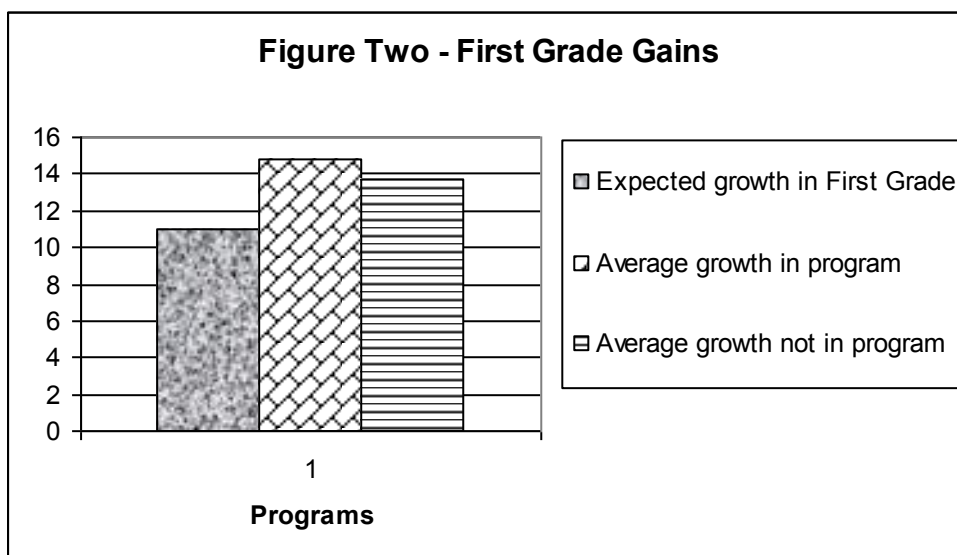
All indications show significant increase in the participating students’ reading scores. Across the grades, the overall average scores exceeded students’ expected growth in reading for a year and this improvement was made in *twelve* not *thirty six* weeks.

Expected yearly growth in kindergarten is 4 points on the DRA scale. Average growth of 30 kindergarten participants was 6.8 in twelve weeks. Average growth of the 58 students in the control group in the same length of time was 6.24 points. Table 1:

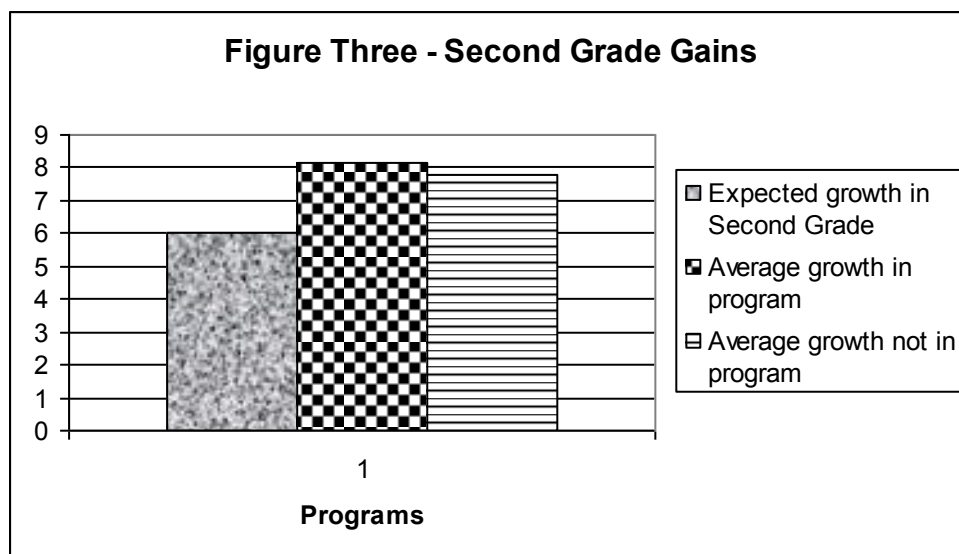


Expected yearly growth in first grade is 11 points on the DRA scale. The average growth of 32 participating students was 14.8 points for the twelve-week period. Average growth of the 49 students in the control group was 13.69 points in the same length of time.

Table 2:



For second grade the expected yearly growth is 6 points on the DRA scale. The achieved average for the 28 participants was 8.14 points during the twelve weeks of the project. Average growth for the 44 students in the control group was 7.81 in the same length of time. Table 3:



In addition, qualitative data show that parents gained confidence as teachers of reading, students enjoyed reading books of their own at home with their parents, and teachers noticed a fast rise in reading levels during the project.

DISCUSSION

Following the end of the project, the teachers, staff, university faculty and curriculum facilitator met to evaluate the project. Several significant results were noted.

First, unprecedented gains were made in the reading levels of the participants as compared with the reading levels of the control group. Since both the experimental group and the control group differed in only two factors, 1) parental involvement in the reading workshops and teaching at home, and 2) books sent home for home libraries for each student, it would seem that progress in reading for the participants was due to these two factors.

As books were selected weekly for each child, teachers noted that their original predictions for levels had to be redone to keep pace with the actual increase in reading levels of their students.

Such results as these tend to show that training parents to teach reading in coordination with the school reading program can have dramatic results. Both quantitative and qualitative data are in agreement also that providing quality, leveled books for students to have for their home libraries is another important part of the equation. It is noteworthy also that the entire project costs were less than \$13,000.

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SWAIN'S OUTPUT HYPOTHESIS AND THE ROLES OF OUTPUT THAT NEED TO BE REVISITED**Jin-Suk Byun***University of North Florida***ABSTRACT**

For the past two and a half decades the roles of output in second language acquisition (SLA) have been discussed in many ways in the framework of output hypothesis proposed by Swain (1985). However, some roles of output proposed in the early version of output hypothesis have not been investigated enough though they may play an important role in SLA. Therefore, this paper overviews the roles of output proposed in the early and the recent version of output hypothesis and discusses the roles that need to be revisited in SLA.

INTRODUCTION

In a series of papers (Swain, 1985, 1993, 1995, 1998, 2000; Swain & Lapkin, 1982, 1995, 1998), Swain and her colleagues have argued that output has important roles in L2 acquisition. They have discussed various roles of output in second language acquisition (SLA) in the framework of output hypothesis proposed by Swain (1985). However, it seems that some of the roles that were discussed in the early version of output hypothesis have been overlooked in the recent version of output hypothesis though they may have important roles in SLA. Therefore, this paper overviews the roles of output proposed in the early and the recent version of output hypothesis and discusses the roles that need to be revisited in SLA.

OUTPUT HYPOTHESIS

The output hypothesis was formed based on empirical observations and analyses of French immersion education. To evaluate the French immersion programs, Swain (1985) compared 69 sixth grade French immersion students with 10 sixth grade native speakers of French in a unilingual French school in Montreal. She examined three traits of competence—grammatical, discourse, and sociolinguistic competence—through oral production, multiple choice, and written production tasks for each trait. The result showed that the native speakers of French performed significantly better than immersion students in terms of grammatical competence and some aspects of sociolinguistic competence, whereas they scored similarly on discourse competence. Further examination of the findings on sociolinguistic competence showed that the immersion students tended to perform as well as native speakers when the aspects of sociolinguistic competence allow formulaic politeness terms. However, when the task involved the aspects of sociolinguistic competence related to grammatical knowledge, native speakers performed better than immersion students. In other words, immersion students did not show native-like language competence in the grammatical domain whereas they developed native-like abilities in other domains.

Swain (1985) concluded that there was something missing in French immersion education. It could not be comprehensible input because immersion students were provided with enough comprehensible input in the content-based curriculum. Also, the missing element could not be 'interaction' because interaction, namely negotiating meaning, could be achieved even through grammatically deviant forms. Swain (1985) argued that for a language learner to acquire a native-speaker competence, the usual meaning of "negotiating meaning" was not enough but needed to be modified to include something beyond simply "getting one's message across" because speakers can and do achieve the goal of simply getting one's message across with ungrammatical and sociolinguistically inappropriate language (p. 248).

As for this issue, Swain and Lapkin (1982) stated that though the eighth grade immersion students of an early total immersion program had not acquired native-like speaking and writing skills, they could "convey the meaning of what they want to say (p. 54)." This shows that in addition to simply 'getting the message across' the negotiation of meaning should include the conveying of message in a precise, coherent, and appropriate way. Therefore, Swain (1985) speculated that immersion students might have needed to be "pushed in output" (p. 249) to be fluent speakers or writers of French and proposed the 'output hypothesis.'

THE ROLES OF OUTPUT IN SWAIN'S EARLY VERSION OF OUTPUT HYPOTHESIS

In her early version of output hypothesis Swain (1985, 1993) suggested that output serves four functions in L2 acquisition—to provide opportunities for meaningful use in context, to test out hypotheses about the target language, to move the learner from a semantic processing mode to a syntactic processing mode, and to provide the learner with feedback-generating opportunities. She argued that the first function of output, the meaningful use of linguistic resources in context, involved fluency and automaticity. Learners use language production as an opportunity for meaningful practice of their linguistic resources, developing automaticity in their use. Though strictly speaking automaticity and fluency are not the same, Swain (1985, 1993) has stated that fluency of L2 increases when the learners use the L2 as frequently as possible. Therefore, in an immersion situation if students were not provided with enough opportunities to use the target language, they might not develop as much automaticity as native speakers of French.

Another role of output is hypothesis-testing function. Swain (1985, 1993) maintained that through output learners tested out their interlanguage linguistic resources and checked if they worked. In other words, learners, whether they are aware of it or not, test the grammar of their interlanguage by producing utterances or sentences generated by their possibly incomplete interlanguage grammar. When they get external feedback from the interlocutor in response to their speech or when they get internal feedback, they confirm or reject their hypotheses. This is called hypothesis-testing and it has been maintained in the more recent versions of the output hypothesis (Swain, 1995, 1998, 2000).

The third role of output Swain (1985) suggested in her early version of output hypothesis was its role in moving learners from semantic processing to syntactic processing. For comprehension, learners just need to understand linguistic data given to them by comparing them with their already existing linguistic resources (semantic processing). For production, however, they need to combine their linguistic resources to produce oral or written speech in an organized way (syntactic processing). Therefore, when learners comprehend speech, they may not pay as much attention to syntactic features as when they produce speech. For example, learners may comprehend a verb in an utterance without knowing its syntactic properties such as subcategorization information. However, when they produce speech, they should know the syntactic features of the verb because they should combine the verb with other elements which precede or follow the verb.

Finally, Swain (1993) added to her early version of output hypothesis one more function, a feedback-generating function, which might be implied in the argument for hypothesis testing function. She claimed that producing output may lead native speakers, in response to the learners' speech, to provide feedback about the comprehensibility or well-formedness of the learners' utterances and this feedback, in turn, may help learners to modify or reprocess their output.

THE ROLES OF OUTPUT IN SWAIN'S RECENT VERSION OF OUTPUT HYPOTHESIS

In the recent version of the output hypothesis, Swain (1995, 1998, 2000, 2005) has argued that output plays three major functions: the hypothesis testing function, the noticing or triggering function and metalinguistic (reflective) function. The hypothesis testing function that was suggested in the early version of output hypothesis has been maintained to the recent version of the output hypothesis (Swain, 1995, 1998, 2000, 2005). Swain (1995) argued that testing a hypothesis requires learners to do something and one way of doing this is to produce oral or written speech. By doing this, learners may test new language forms and structures to check what works and what does not as they develop their interlanguage to meet communicative needs (Swain, 1998). Swain (1995) argued that the hypothesis testing function of output was supported by the study of modified output following feedback. For example, in the study of how learners make modified output in response to native speakers' different signal types and different communication tasks, Pica, Holliday, Lewis, and Morgenthaler (1989) tested 10 Japanese speakers of English with low-intermediate and mid-intermediate proficiency levels and 10 native speakers of English. They used three tasks—information-gap task, jigsaw task, and a discussion—for 10 NNS-NS dyads each. The results showed that in conversation between native and non-native speakers, native speakers' demands such as clarification requests and confirmation checks pushed learners to modify their output. More specifically, native speakers' signals of communication break-down induced either semantic or morphosyntactic modification of over one-third of learners' utterances.

Swain (1995) has argued that learners' modified output following feedback showed that they had been involved in a hypothesis-testing process. She noticed that the subjects in the Pica et al.'s study did not modify all of their utterances but only approximately one-third of their utterances. She maintained that this showed that the learners had been testing some things but not others. In other words, the process of modifying output was guided by

learner-generated hypothesis selectively focusing on the linguistic elements in need at that moment according to the learners' developmental stage. Of course, in this case the learner-generated hypothesis testing seems to be done usually at the unconscious level though it may also be possible for the process to be done at the conscious level.

In relation to learner-generated hypothesis testing, Swain (2000) also described her observation of two immersion students. She stated that errors and corrections learners had made in their written or spoken production also showed that they were involved in hypothesis testing about how the target language system works. In the task of reproducing the text they had just heard, the two students in her study worked together and produced a written text, where they modified the form of the partitive immediately preceding a plural adjective. They crossed out *des* and replaced it with *de*, which was the correct form in the given context. On the basis of the written work, Swain argued that the modified output represented the students' current hypothesis about the form a partitive should take in front of an adjective.

In her recent version of output hypothesis Swain (1995, 2005) proposed two additional functions: noticing or triggering function, and metalinguistic (reflective) function. As for the noticing function, Swain (1995) argued that by producing output "learners may notice a gap between what they want to say, and what they can say, leading them to recognize what they do not know or know only partially" (pp. 125-126). This is different from Schmidt and Frota's (1986) 'noticing.' Schmidt and Frota stated that for a target-like form to be incorporated into second language learners' interlanguage system, it should be present in the form of comprehensible input and noticed or consciously identified. Here Schmidt and Frota's notice the gap principle focuses on the noticing of input necessary for interlanguage development. However, Swain's noticing function of output focuses on the noticing of gap in a speaker's output ability or linguistic knowledge. In other words, "the activity of producing the target language may prompt second language learners to consciously recognize some of their linguistic problems; it may make them aware of something they need to find out about their L2" (Swain, 1995, p. 129). This may lead the learners to pay attention implicitly or explicitly to something, possibly in future relevant input, that they need to solve the problems or may lead the learners to refer to dictionary or grammar book, or to ask their peers or teachers (Swain, 1998, 2000).

The final role of output in Swain's latest version of output hypothesis is metalinguistic function, which is "conscious reflection about language" or "negotiation about form" (Swain, 1995, p. 132). She stated that though learners' hypotheses were not stated explicitly, under certain language tasks the learners' hypothesis testing process was expressed through learners' output. This is when the learners reflect on and discuss explicitly the target language using language. In this case, output is playing a metalinguistic role. In other words, learners communicate about language, negotiating the form of the target language in the meaningful interaction.

To examine the metalinguistic function of output, Swain analyzed language-related episodes (LREs) (Swain, 1995, 1998; Swain and Lapkin, 1995, 1998), which were learners' conversations about their target language. For example, using dictogloss tasks, Swain (1998) tested two eighth grade classes in early French immersion education. Her research questions were whether the modeling of metatalk by the teacher influenced the students' use of metatalk and whether there was a relationship between metatalk and second language learning. Forty-eight students from different schools within the same school district were assigned to the two classes, one of which was a Metalinguistic group and the other of which was a Comparison group. In the modeling session, the Metalinguistic group was drawn to pay attention to grammatical forms and given explanation for them using grammatical terms. However, though the attention of the Comparison group was also drawn to grammatical forms, they were not given explanations for them. Both group's interactions were tape-recorded and their LREs were analyzed.

The results showed that the Metalinguistic group had had much more conversation about their target language than the Comparison group (by two and half times in terms of the average number of LREs). Swain (1998) argued that the explicit statement of rules and the use of metalinguistic terminology led learners to pay more attention to their own language use. Also when subjects solved the problems correctly in the experiment session, they had a strong tendency to perform accurately on the relevant posttest questions. However, when they solved the problems incorrectly in the experiment session, they tended to perform inaccurately on the relevant posttest questions. Swain stated that the results strongly suggested that the LREs, where students consciously reflected on their own productions, might have functioned as a source of language learning. This suggests that there may be a strong relationship between metatalk and second language learning.

It seems that this metalinguistic function of output has been discussed in terms of many different theoretical perspectives (Swain, 1995, 1998, 2000; Swain and Lapkin, 1995, 1998), and currently Swain focuses on 'collaborative work' in which the metalinguistic function occurs. More specifically, Swain (2000) has emphasized the importance of collaborative work in L2 acquisition in the framework of Vygotskian sociocultural theory, which states that the human mind is mediated and meaningful social interaction plays a fundamental role in transforming the L2 from interpsychological functioning to intrapsychological functioning (Lantolf, 2000; Ohta, 2000).

According to Ohta (2000), in this approach the distinction between ‘speaker’ and ‘hearer’ becomes blurred and the concepts of ‘speaker’ and ‘hearer’ converge in the sense that both speakers and hearers collaboratively produce utterances which are jointly owned. She stated that “language acquisition is realized through a collaborative process whereby learners appropriate the language of the interaction as their own, for their own purposes, building grammatical, expressive, and cultural competence through this process” (p.51).

In relation to the collaborative work in the sociocultural theory framework, Swain (2000) emphasized the importance of ‘collaborative dialogue’ in L2 acquisition. She defined collaborative dialogue as dialogue where speakers are engaged in problem-solving and constructing linguistic knowledge. Implying the future direction of output hypothesis, Swain (2000) stated that the ‘beyond the output hypothesis’ was the collaborative dialogue. This means that collaborative dialogue is a crucial factor for second language learning as seen below:

It is knowledge-building dialogue. In the case of our interests in second language learning, it is dialogue that constructs linguistic knowledge. It is what allows performance to outstrip competence. It is where language use and language learning can co-occur. It is language use mediating language learning. It is cognitive activity and it is social activity. (Swain, 2000, p.97).

As indicated above, performance outstrips competence in collaborative dialogue, resulting in language learning. This is in line with her earlier argument that learners’ conversation about target language, namely LREs, may be a source of language learning (Swain, 1998). When learners reflect on their language use in social interaction through language, there occurs language learning which raises their competence level of the moment.

THE ROLES OF OUTPUT THAT NEED TO BE REVISITED

As discussed so far, the roles of output have been investigated in the framework of output hypothesis while it has been developed from its early version to the recent version. However, it seems that two of the roles—providing opportunities for meaningful use of linguistic resources, and providing opportunities for change from semantic processing to syntactic processing—have been overlooked though they may have important roles in SLA. In other words, they need to be revisited in SLA.

First, the role of output for providing opportunities for meaningful use in context has not been the focus of many empirical studies. However, the role of output as contextualized meaningful use of linguistic resources can be examined in relation to automaticity. This is in line with Muranoi’s (2007) claim that the automatization process is triggered by output. As discussed earlier, in the French immersion situation if students were not provided with enough opportunities to produce the target language, they might not develop as much automaticity in production as native speakers of French. However, this has not yet been examined in an immersion context.

Also the role of output in relation to automaticity seems to be one of the areas on which more studies are needed by current SLA. According to DeKeyser (1997), automaticity has not been studied enough in L2 acquisition so far. He has also stated that although a number of studies have been done on the automaticity of L2 access in comprehension, particularly in reading, not much information on the automaticity in listening or speaking is available. Therefore, studies on the role of output as opportunities for meaningful use in context would contribute to the underdeveloped area of current SLA.

The other role of output that needs to be revisited is the role of output in promoting syntactic processing. Though it has not been the focus of empirical research, the investigation of this function may contribute to SLA because the function may explain how learners internalize and automatize grammatical knowledge. As discussed earlier, for comprehension it is not necessary for learners to involve syntactic processing whereas for production they need to most of time. Swain (2005) indicated that there is a fairly large difference in form-meaning mapping between grammatical encoding and decoding because grammatical encoding pushes learners to reorganize it whereas grammatical decoding does not. Gass (1997) has also argued that learners need to practice mapping grammar to their output to automatize the grammar. In other words, in the syntactic processing through production practice, learners may acquire and internalize the grammatical knowledge of their target language. Therefore, the role of syntactic processing also needs to be revisited in current SLA.

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ENDNOTES

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TEACHING FRESHMAN BUSINESS STUDENTS ETHICS: A CASE STUDY

John P. Koeplin

University of San Francisco

ABSTRACT

Making ethical decisions is important for both personal and business situations. This case study suggests a different approach to educating business students about ethics and personal character. By exposing beginning business students to personal and business dilemmas, requiring reflection papers on their experiences, debating business and political issues, and through other activities such as discussion various business ethical dilemmas, students will become more sensitive to ethical issues and ideally see character development as something directly related to their studies. Additionally, by having students take this course in their first year of undergraduate studies, this will affect the context and experience of most of their remaining courses, including business courses. This course's purpose ultimately is to help equip the student to be more morally perceptive and thoughtful, and in so doing, help them become mature professionals with improved excellence of character.

INTRODUCTION

Can ethics be taught? Can morality be taught? Can character development be taught? These are important questions, especially for business schools educating future managers. There have been far too many business (and accounting) scandals in the past decade. We are all familiar with the Enron's and WorldCom's of the world, forever identified as the epitome of corporate corruption and greed. We are aware of Wall Street firms using United State bailout funds for executive bonuses (Solomon, 2009). Time may well indicate that corporate and individual greed contributed heavily to the economic recession of 2008. The fallout from these scandals has destroyed the economic wellbeing of millions of people.

The vast majority of the major players in these business institutions are graduates of the colleges and universities of the United States. Might that indicate that Business Schools of these institutions bear some responsibility in these scandals? Is something missing in their university education that would enable graduates to "do the right thing" more often? Delbecq laments, "I find executives discouraged when they discover business students' ethics shallower and inner compasses more poorly calibrated than expected" (2009, 25). For a number of years, a cross section of people have called for business schools to include an ethical component in the curriculum (AACSB). Schools have responded differently to this call. Some have placed most of the ethical emphasis on a single course while other schools have attempted to integrate ethics throughout the curriculum. The results of such approaches are mixed at best.

Most, if not all, universities and business schools have a mission statement or vision statement that inevitably mentions ethics in some form or another. How should universities, and specifically business schools, meet the call to educate their students to be persons of integrity, persons who will make ethical decisions in their chosen fields as well as in their personal lives?

This paper uses a case study to describe the design, delivery and evaluation of an approach that differs from that of a typical business ethics course. Traditional business ethics courses have usually stressed a philosophical basis and offer various approaches to explaining ethical theory. Additionally, most of these business ethics courses are offered during the third or fourth year of an undergraduate business program. A proposed approach exposes business students to ethical matters directly as they begin their university studies in the freshman year. Its purpose is to enhance the effect on their ethical development as future business leaders from the very beginning of their college studies. Such a course called "Becoming Principled Business Leaders," will stress character issues and dilemmas, with the purpose of enhancing the student's character development.

What, we ask ourselves, is the value of any business ethics course? What is it that we as educators expect our students to receive from such a course? Should a course in business ethics help students develop certain skills akin to learning about other business disciplines? Is there a specific business ethics content that we wish to impart on students? Or is the real purpose of such a course to educate students to learn to think on their own and make decisions that are based on values and principles focused more on the common good and not individual gain? This latter approach challenges students to wrestle with a number of business and societal issues. The goal is that they may be able to develop internal abilities to analyze situations as well as become aware of the consequences of choices that they make. Hopefully students will become aware of what it means to be a person of integrity, and be

able to express their integrity in word and in their actions, both as business professionals and in their personal lives. Ultimately this course's purpose ultimately is to help equip the student to be more morally perceptive and thoughtful.

This course is taught at a Catholic, Jesuit Institution in the Western United States. The mission of this Jesuit institution is to strive to bring about positive character change in our students. Koehn (2005) insisted that such an institution of higher learning should not only make a difference about personal virtue but also make this the aim of business ethics courses. Williams and Dewett (2005) in their literature review on teaching business ethics concluded that there is significant evidence that business ethics education is worthwhile. Research indicates that students' awareness of moral issues is developed (Weber & Glyptis, 2000); moral development is fostered (Penn & Collier, 1985); and students' ability to handle complex ethical decision making is improved (MacFarlane, 2001). On point to the approach taken in this course, Begley (2006) asserted that 'there is a need to teach more than theoretical ethics and that the ethics teacher must facilitate the acquisition of *practical* wisdom and *excellence of character*' (Begley 2006: emphasis in original).

BECOMING PRINCIPLED BUSINESS LEADERS

This course is taught to incoming freshman, and is the first and only business course that they will take in their first year. This course is not taught by the liberal arts faculty members but by a business professor. Such an approach is very different from many schools that have instructors from the philosophy department teach business ethics. Having a business professor teach it gives it a different emphasis that should not be lost on the student's perception of the importance of this material. The primary focus in this course is on character development. Rather than covering philosophical theories regarding general ethics, this course focuses on situations and circumstances that students may have already encountered or may encounter in their lives. This approach emphasizes personal choices and how these choices directly impact one's character.

Since the design of this course requires significant student interaction, it is imperative that students feel free to voice their opinion. Each student is required to sign a confidentiality agreement regarding the course. Specifically, anything said within the class is confidential and should not leave the classroom. As part of the course material, students must purchase individual keypad which allows them to respond anonymously to any number of questions, i.e., true/false, yes/no, multiple choice, etc. posed by the instructor so that the aggregate results may be displayed to the class immediately. (For information on this keypad technology, see Classroom Performance System at www.einstruction.com.) This approach encourages honest responses to various questions, especially personal, as opposed doing so "publicly" even within the confines of the classroom. Additionally, the use of these keypads sparks spirited classroom discussions once the aggregate responses have been revealed to the class.

The course comprises four elements: (1) business and personal ethics issues; (2) concepts related to character development (3) tools, including templates or rules for solving ethical dilemmas, at an individual and corporate level ; (4) reason and argument. Writings by William Bryon's *The Power of Principles: Ethics for the New Corporate Culture* (2006) and Chris Lowney's *Heroic Leadership: Best Practices From a 450-Year-Old Company That Changed the World* (2003) specifically support this method of character development. Bryon's book proposes ten principles to avoid the ethical quicksand that has pulled down countless managers and executives as well as too many companies. Lowney's book describes the managerial approaches taken by the Jesuits in their 450 year history and connects them to today's business world. Items for students' assessment include an autobiographical essay, reflection papers, debates, major group project, quizzes and an exam.

The first assignment requires the students to submit a short autobiography with special emphasis on reasons they have chosen business as their course of study. Suggested questions to which they could respond include: "What do I want to do? How will I achieve meaning through a career in business? How much money to I want to make? How will I contribute to the well-being of my fellow man? What do I want to be in 20 years?" Additionally, part of the students' evaluation depends on reflection papers that they are required to submit throughout the semester. Students must coherently reflect on what they have learned in class. Suggested questions touch on topics such as: "What aspects of the class most deeply affected me? Why? Did I gain any new insights in class? Did anything I experienced in class change the way I see myself? Others?" These questions are only suggestions, and students may take another direction in their reflections. Students need to submit their reflections no later than 48 hours after the class they are reflecting on. Harris (2008) suggests that "a capacity for personal reflection is essential for the development of ethical wisdom".

The debate segment enables students to argue positions for or against on a number of business, political or personal issues. The purpose is to support the acquisition of reasoning and analytical skills. Students are expected to argue their side of an issue for 3-5 minutes followed by 3-5 minutes of discussion between the two presenting

groups. A public discussion follows with questions and comments posed by the rest of the class. Following a summation by the professor, students are queried with their keypads on what they may have learned from the debate. In a 17 week semester, each student normally will present a position in 2-3 debates. Those not debating are required to be familiar with the topics being debated and participate in the public portion of the class. Topics include gender issues, whistle-blowing, outsourcing, profitability for ethical vs. unethical companies, and executive compensation. Throughout the course a number of ethical scenarios are presented to the class for discussion. A number of resources are available that detail approaches on dealing with ethical situations. I call these ethical response templates (see Valasquez 1997). After an ethical scenario is presented to the class, students meet in small groups to discuss the case. The ethical response templates are one way to frame the issue as well as propose possible resolutions to the dilemma. Subsequently the scenario and possible resolutions are discussed by the entire class. The quizzes and final exam include dilemmas of these types that students complete on their own. Responses are evaluated based on the students' analysis and reasoning in a logical manner.

A capstone group project completes the semester. Each group is assigned a company/business ethical scandal for which they are to do a class presentation and report. Both the presentation and report include (but are not limited to) the following:

Demographic information about the company, i.e., product or service, where firm revenues come from, earnings, stock prices, competitors if any, major players, etc. What was the "unethical" action? What was the motivation for unethical impropriety? Why did the "people involved" do what they did? How did the "unethical action" come to light? What happened to the company and to the company personnel involved? What lessons can be learned from this company?

The final presentation requires students to demonstrate technological competence, written and verbal communication proficiency, and analytical skills expected of business professionals. The potential company/business ethical scandals include the Ford Pinto case, WorldCom accounting scandal, Sunbeam corporate scandal, Adelphia scandal, Hewlett-Packard spying scandal, Fannie Mae, and other banking/financial scandals. Since this is the first business course taken in their freshman year, the instructor needs to teach rudimentary business concepts. This requires the teacher to take one or two classes to explain business terminology as well as a basic explanation of financial statements, the role of business in society, how businesses operate, stakeholder concepts, explanations of business and accounting scandals, and whatever assists the students in being able to get beyond the surface issues to ethical/character issues.

The intent of the course is to assist students to become more aware of ethical matters not only in the business world but in their personal lives as well. Williams and Dewett (2005, 110) assert that "business ethics education should enhance students' awareness of and sensitivity towards the ethical consequences of their actions." For instance, in one of the first classes the discussion begins with downloading music illegally from the Internet. Students can certainly resonate with this example. This leads to a discussion of integrity, which includes what one does when no one is watching. Most students will admit to having downloaded music illegally, but will "defend" their actions through any number of common justifications, i.e., this really isn't hurting anyone, the record companies are gouging the public and similar arguments. After the introductory discussion on this matter, the instructor presents to the students the following principle: If one is willing to bend the rules over a fairly inexpensive item like a song, how is that person going to be able to make significantly more material decisions when he or she may be serving as a manager of a company, especially given the pressures that managers are often under? Ultimately the decisions we make in our daily lives define our character and directly impacts the day to day decisions we make in life, both in our chosen careers and also in our personal lives.

The intent of the course's progression is to move from description to explanation to justification and reflection. This process leads students to be able to first see ethical dilemmas where they might not normally see them, and gives them some tools to help them respond. The case studies, reflection papers, in-class exercises dealing with ethical dilemmas, and the final group project and report all provide opportunities for practicing what ultimately is the mission of our University, that is, not solely to become successful business persons in terms of wealth and power, but how to ethically use their skills, to be persons of integrity, and to do the right thing, no matter the consequences their choices may bring. Harris (2008) asserts that "managerial success requires more than theoretical excellence and it is widely accepted that it has to be tempered with a degree of practicality". Begley (2006) lists the three components for a mature professional: theoretical wisdom, practical wisdom and excellence of character. This course is designed to educate students with an eye towards some of the ways one can improve one's character and provides tools to help them do just that.

Koehn (2005) and Begley (2006) have both suggested that there are activities that can be used to develop practical wisdom and positive character. Likewise, they list practice, narrative, exemplars, and reflective writing as ways to do this. Additionally, Sims and Brinkmann (2003, 70) propose that in teaching business ethics business schools should develop “communication and participation opportunities in the course for stakeholders (e.g., students) as early as possible by appropriate listening mechanisms is important, e.g., by inviting essay writing, group discussion about moral views and positions which individuals “bring with them”. In this light Koehn (2005) argues that although transformation cannot be mandated, “the classroom experience should be transformational” so that “the students cast their gaze inward, scrutinizing their behaviors and desires”. This examination, he argues, is the beginning of wisdom.

Unlike most other “business ethics” courses, this course is taught during the first year of University studies. This allows business ethical and integrity issues to be brought to the forefront prior to their taking normal business courses. These students will be able to then bring their ethical wisdom to future courses. Such a procedure highlights the importance not only of sound technical understanding of the respective business material, but also the significance of the ethical component. This ideally will provide a firm context within which students undertake their business classes and improve the chances to become mature professionals.

CONCLUSION

The inclusion of a business ethics course is one way to address in part what Begley (2006) listed as one of the three components for a mature professional, excellence of character. This course cannot do it alone, but as an introductory experience taught at the beginning of a business student’s studies, it could be an important start since it stresses that students should know the importance of personal integrity in their professional development. Obviously this course is one way for schools to concretize mission statements that explicitly mention ethics and character development as one of the goals for graduates.

Few would argue that ethics and character are not admirable goals for any academic institutions should import to their students. How this is to be done ultimately becomes the question. Future research should include a longitudinal study of these students to determine if and how much “character development” is occurring. Various assessments for moral development, character development, values, and like areas are all be useful in determining the value of this approach, especially since it is done so early relatively to other business ethics courses normally taken by business students.

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MENTORING UNDERGRADUATE RESEARCHERS: FACTORS THAT SHAPE THE GROWTH OF STUDENT SCIENTISTS

Linda S. Behar-Horenstein
University of Florida

Alice C. Dix
University of Florida

Kellie W. Roberts
University of Florida

ABSTRACT

The outcomes of mentoring in science are not well understood. In this paper, within the context of an undergraduate research program, the authors describe how mentoring encouraged students' development as scientists and how professors perceived their roles as mentors. Five undergraduate science scholars and four mentoring professors were interviewed near the end of the first year of the program. The findings showed six themes among the students: autonomy with research, characteristics of mentors, image of scientists, mentoring, skill sets, and working relationships. Four themes among the professors emerged including collaboration, mentoring, mentoring challenges, and skill sets. Overall the findings revealed that students did not describe how relational aspects of mentoring influenced their development as scientists while professors provided specific examples of how mentoring aided students' development as scientists. New to the literature was the study's finding of mentoring challenges in which the professors discussed specific obstacles such as recruitment, working with students for whom English is a second language, and concerns about the quality of students' learning. Professors and students provided no evidence of increased critical thinking skills among the students. Finally, this paper demonstrates how qualitative inquiry can offer an in-depth description of the roles and challenges to mentoring that occur in the development of undergraduates as emergent scientists.

INTRODUCTION

Varied perspectives about the usefulness of mentoring in education continue to puzzle researchers. Some science academics, ask how mentoring can facilitate learning for undergraduates and encourage their entrance into science-related careers. The purpose of this paper was to describe how mentoring encouraged students' development as scientists. Also described are professors' perceptions of their roles as mentors. The questions researchers asked include: How did mentoring influence undergraduate science scholars' perceptions of and ways of thinking about science, and their understandings of scientific inquiry? How did the professors' describe their mentoring? and How did the professors believe their mentoring influenced the undergraduate science scholars' perceptions of and ways of thinking about science, and their understandings of scientific inquiry?

BACKGROUND FOR THIS STUDY

Mentoring

Mentoring is widely discussed in higher education, business, and psychology, however there is no agreed upon definition. These variations plague research and devalue the concept for use in empirical research. Jacobi (1991) focuses on the idea that mentoring is typically defined by the mentor's functions or the roles and how those processes serve the needs of the protégé. Blackwell (1989) wrote, "Mentoring...is a process by which persons of superior rank, special achievements, and prestige instruct, counsel, guide, and facilitate the intellectual and/or career development of persons identified as protégés" (p. 9). The National Academy of the Sciences (1997) reported that a good mentor helps students: (a) optimize educational experiences, (b) become socialized into a disciplinary culture, and, (c) find employment. Jacobi (1991) added that mentors also often provide protégés with emotional and psychological support, career advisement, role modeling, and experienced discipline-based individuals to work with them.

Undergraduate Research Experience (URE) Programs

In response to the 1998 Boyer Commission and the National Research Council (1999, 2000, 2003a, 2003b), among others, research-based learning may soon become a standard component of students' college education (Hunter, Laursen, & Seymour, 2007). To support such initiatives, the National Science Foundation and the Howard Hughes Medical Institute have provided grants to foster undergraduate research experiences (URE) with university faculty. Benefits of UREs to students and faculty have been widely discussed in the literature and include retention, persistence, and promotion of science careers for underrepresented groups (Adhikari & Nolan, 2002; Barlow & Villarejo, 2004; Bauer & Bennett, 2003; Hathaway, Nagda, & Gregerman, 2002; Lopatto, 2004; Nagda, Gregerman, Jonides, von Hippel, & Lerner, 1998; Seymour, Hunter, Laursen, & DeAntonio, 2004; Russell, 2005; Ward, Bennett, & Bauer, 2002; Zydney, Bennett, Shahid, & Bauer, 2002a; Zydney, Bennett, Shahid, & Bauer, 2002b). Yet the role of mentoring in facilitating students' acquisition of cognitive, personal, and professional growth is less understood.

Benefits of Undergraduate Research Experience (URE)

Seymour and her colleagues (2004) found that the student participants made specific references to "research-derived gains" and the impact that the URE had on their career choices and their future. Hunter, Laursen, and Seymour (2007) compared student responses to those of their faculty mentors in the URE program. They found that the two groups focused on the same types of benefits but described those gains differently. Students seemed unaware of how gains from the URE would impact their professional lives. Faculty, on the other hand, saw these gains as the beginning stages in the progression toward students "becoming scientists" (p. 45). Both groups found the URE beneficial for students to learn how scientific research is performed and both felt the gains were due to the hands-on aspect of the experience. Hunter et al., (2007) found that UREs were highly beneficial (90% of faculty and 92% of student observations noted specific gains). They believed that their findings supported funding agencies' and faculty's claims that UREs are the best way to learn science while also focusing on students' personal, intellectual, and professional growth.

Another benefit of UREs that is often cited is the participatory learning experience. Barab and Hay (2001) have described the participatory model as a type of instruction that, "...positions students in activities that have direct meaning and are of direct value to a community outside of schools" (p. 75). In the same manner, science UREs provide students with authentic learning experiences because they have encounters with experts or more knowledgeable peers. In comparison to the traditional lecture-format of teaching and learning, apprenticeships or UREs foster beneficial experiences for science students and their instructors because they offer immersive experiences for students by placing them within the lab to conduct experiments where they engage in the actual process of science. In a study of middle school students engaged in an apprenticeship, Barab and Hay (2001) found that "... the learners were actually doing these practices in an authentic context alongside expert scientists who modeled scientific practices and valued the outcomes" (p. 95). However, when, Bell, Blair, Crawford, and Lederman (2003) studied student apprentices in an eight-week high school science program, they found few changes in the students' understanding of the nature of science. Even though they were introduced to a range of scientific investigations, students did not "come to understand science by doing science" as the mentors had assumed (Bell, et al., 2003, p. 502). The authors emphasize the essentialness of systematic reflection about science experiences so that students connect science learning to the larger scientific context. While summarizing the effectiveness of participatory models in UREs, Hodson (1993) concluded that doing science with a skilled practitioner who provides real time feedback is the only effective way to learn it.

METHODS

Students and professors from a program designed to engage undergraduates in mentored research were recruited at large research I university located in the Southeast United States. Five students were recruited from a pool of undergraduate awardees¹ and five professors were recruited from a group of professors who were designated as program mentors. The data that comprise this study were follow-up interviews of the same and initial group of individuals who had participated nine months earlier (Behar-Horenstein, Dix, & Roberts, in preparation). After

¹ This research was made possible by an award from the Howard Hughes Medical Institute (Award # 00062786). The contents of the paper are solely the reflections of the authors' work, not the agency.

transcribing the interviews, the researchers began open coding. Next, they coded information from participants' answers, not from the questions themselves. As the findings coalesced, six themes and 165 citations for the students' dataset and four themes and 128 citations for the professors' dataset emerged. Frequencies for each of the codes were tabulated and definitions were developed to support the themes.

RESULTS

Student Themes

Students' level of independence in research projects (autonomy with research) was cited in 7.27% (n=12) of the dataset. Attributes of good mentors (characteristics of mentors) accounted for 14.55% (n=24) of the dataset and included accessibility, attentiveness, and helpfulness regarding academic and career concerns. Descriptions of the appearance or work of scientists (images of scientists) accounted for 13.94% (n=23) of the dataset. Accounting for 22.42% (n=37) of the dataset were experiences while working under the tutelage of a professor or graduate student, or experiences while working without direction from a supervising professor (mentoring). Scientific research abilities and abilities to present data and results in written and oral communication (skill sets) accounted for 33.94% (n=56) of the dataset. Students' explanations of lab and research work with others (working relationships) accounted for 7.79% (n=13) of the dataset.

Professor Themes

Students working with someone besides the mentor (collaboration) accounted for 10.94% (n=14) of the dataset. Facilitating students' entry into scientific inquiry providing academic and career advice, and meeting with students (mentoring) accounted for 44.53% (n=57) of the dataset. Students' situational obstacles and skill level encountered by the mentor accounted for 16.41% (n=21) of the dataset and included concerns about recruitment, working with ESOL students, the amount of students learning that occurred in conjunction with the graduate and the timeframe for writing papers (mentoring challenges). Developing students' understanding of science and scientific inquiry, and their abilities to discuss the scientific processes in both written and oral communication (skill sets) accounted for 28.12% (n=36) of the dataset.

DISCUSSION

Corroborating what professors reported, students described changes in their skill sets as increased abilities in interpreting data on their own, making frequent presentations, questioning existing protocol, or getting published. This finding is consistent with the literature and supports the belief that research mentors provide students with presentation and publication experiences (NRC, 2003a; Mabrouk & Peters, 2000; Nikolova Eddings, et al., 1997; Ward, et al., 2002). Like Nikolova Eddins, et al., (1997), Stevens and Reingold (2000), and Ward, et al. (2002), students described teamwork and collaboration as a URE outcome. Regarding autonomy in research, students described their independence forming research questions, the ability to question existing protocols, or the lack of autonomy they experienced (Lopatto, 2004; Ward, et al., 2002).

Professors described collaboration as peer mentoring and working with others in the lab. The emergence of collaboration (Nikolova Eddins, et al., 1997; Stevens & Reingold, 2000; Ward, et al., 2002) has been cited in the literature. Professors explained that mentoring consisted of describing the scientific process to students, developing their critical thinking skills, and giving academic/career advice. However, there were no specific references to support professors' assertions that they helped students develop critical thinking. Mentoring challenges, was described as professors' concern about the quality of learning among undergraduates from graduate students, their difficulties in recruiting minorities, working with ESOL students, and concerns that scholarly papers were being written too rapidly. This finding is similar to what has been described as the costs of mentoring. Others have reported that the requisite time to mentor an undergraduate properly and the cost of supplies can be drawbacks for faculty participation (Stevens & Reingold, 2000; Zydney, et al., 2002b).

As themes, mentoring and mentoring challenges have not been explicitly discussed previously and, thus, are new to the literature. Perhaps their emergence is an indication of an area of research that warrants greater attention, as they are central to student learning and outcomes. Neither the students nor professors identified increased higher order thinking skills. Students did not describe mentoring as central in their growth or development in becoming a future scientist. In addition, not all of the reported outcomes were positive either. For example, some students reported the lack of autonomy that they were experiencing. Finally, the finding that both professors and students reported, gains in skill sets including oral presentations, was consistent with what Seymour, Hunter,



Laursen, and DeAntonio, (2004) reported. UREs can be a powerful mechanism because students must devote considerable time and effort, interact with faculty over time about research and career trajectories, receive frequent feedback from mentors and other collaborators and apply what they have learned (Kuh, 2008).

Tables and references are available upon request.

THE EFFECTS OF ASSISTIVE READING TECHNOLOGY ON STRUGGLING READERS' ACHIEVEMENT

Jackie B. Manning

Auburn University Montgomery

Connie Buskist

Auburn University Montgomery

ABSTRACT

Struggling readers have difficulty making meaning from print materials for a variety of reasons including difficulty decoding words, inaccurate and/or slow word recognition, weak vocabularies, inadequate background knowledge and poor comprehension skills. Students who have difficulty reading the words, read slowly, or struggle with comprehension of text need extra support in their classes. Fortunately advances in technology provide ways to support students with reading difficulties. Assistive reading technology, such as NaturalReader and Microsoft Reader are text-to-speech software that has the potential to support struggling readers' word recognition, making it quicker and more accurate, so that they can concentrate on the meaning of text. Students in grades two through six are participating in this ongoing study to determine the effectiveness of using these text-to-speech technologies to improve reading skills. The data for this one-group time series design is collected through pre- and post-test assessments and student interviews.

INTRODUCTION

More than 8 million students in grades 4-12 are struggling readers (U.S. Department of Education, 2003). These students have difficulty making meaning from print for a variety of reasons including difficulty decoding words, inaccurate and/or slow word recognition, weak vocabularies, inadequate background knowledge and poor comprehension skills. As students move into the upper elementary school years and beyond, students with weak reading skills often fall further behind in their reading skills as well as having problems in their content area studies (Underwood & Pearson, 2004). Students in the fourth grade and beyond are usually expected to read subject area texts in order to learn the content. Students who have difficulty reading the words, read slowly, or struggle with comprehension of text need extra support to make it through these classes. Content area teachers use a variety of strategies to assist students who struggle with reading content area texts including helping students before reading, during reading and after reading. Sometimes, however, students' reading skills are so limited that even these strategies do not provide enough support to help students do the required reading and learn the content. Some of these students are identified with specific learning disabilities, while others are not. These students are capable of understanding and thinking about text, but their slow and laborious reading leaves limited cognitive capacity to focus on comprehension. Long passages in science and social studies text, for example, can take an extremely long time to read.

Fortunately advances in assistive technology provide ways to support students with reading difficulties. Assistive technology (AT) is any device or service that increases, maintains, or improves functional capabilities of students. Assistive technology includes many types of technology that aid people as they read, write and learn. One such technology, text-to-speech, reads text aloud. This technology has the potential to support struggling readers' word recognition, making it quicker and more accurate, so that they can concentrate on the meaning of text. This assistance can also give students added confidence in their abilities to complete their school work (Engstrom, 2005). Two of these text-to-speech programs, the Microsoft Reader and NaturalReader, are available on the Internet free for classroom use. Each of these programs highlights words as they are being read aloud, which has been shown to be beneficial in helping students strengthen their word recognition skills (Oloffson, 1992, Wise, B., Ring, J. & Olson, R. K. (2000). Computer manufacturers continue to improve AT, such as text-to-speech applications and features in operating systems, allowing greater access to many varied groups of users. These AT applications and features are intended to make information available to users but can AT improve struggling readers' literacy?

BACKGROUND

The use of text-to-speech assistive technology has been studied in various contexts. Some studies found evidence that the use of speech feedback programs could improve word recognition both in and out of context for struggling readers (Olson & Wise, 1992; van Daal & Reitsma, 1990). Several studies that measured the effects of speech synthesis and other electronic enhancements on comprehension found mixed results. Farmer, Klein, & Bryson (1992) found no differences in comprehension assessment when studying the use of speech synthesis in studies with secondary students. However, their study provided speech feedback only when the student requested it, which was infrequent. Therefore, they only heard the words read aloud that they chose, presumably those with which they had a difficult time reading. Montali and Lewandowski (1996) found that when learning disabled readers' read text on the computer screen with each word being highlighted as it was read aloud, their comprehension level equaled that of average students reading silently. Reinking (1988) found that adding enhancements to the electronic text such as difficult words being defined, paraphrasing of passages at a lower level and statements of the main idea improved comprehension for good and poor readers. However, several studies (Feldmann & Fish, 1991; Swanson & Trahan, 1992; Leong, 1995) found no difference in comprehension when using these electronic enhancements to text. Boone & Higgins (1991) investigated the use of electronic versions of basal readers in grades kindergarten through third grade. These electronic text versions were enhanced with animated graphics, speech synthesis, simple definitions and synonyms. Their findings were inconclusive.

Studies focusing on content area reading have also found mixed results. In their study, MacArthur & Haynes (1995) found that high school students with learning disabilities obtained higher scores on chapter tests after using electronically enhanced versions of their textbooks. These electronic textbooks included speech synthesis, graphics, word-processing for note taking and supplementary explanations. Higgins, Boone, & Lovitt (1996) examined the use of electronic study guides for high school history class. They found no significant differences on quizzes or tests when students use these.

In addition, research with assistive technologies suggests that using technology can improve motivation, an important element in using reading to learn (Lundberg, 1995). Many students struggle with reading school texts in upper elementary school, middle and high school even though they have the ability to decode words. Assistive technology has been shown to be beneficial to college students who lack the necessary reading and writing skills to successfully complete their course work (Engstrom, 2005).

METHODS

The purpose of this six week pilot study is to investigate the benefits of using AT to support struggling readers' read class materials. The design of this project is a one-group time series design. In this design "the researcher records measures for a single group both before and after a treatment" (Creswell, 2003, p. 169).

Research Questions

This study will examine the following questions: (1) Does the use of assistive technology improve the reading achievement of second to sixth graders who struggle with reading as shown on pretest and posttest assessments? (2) Do students using assistive technology find this assistance beneficial? (3) Do teachers find the use of assistive technology beneficial for their students and do they see this assistance as something that they could regularly use in their program?

Participants

Participants for this study are eight second to sixth grade students in an after school program that focuses on homework help. The students selected to participate in this study were chosen by the after school program director and program tutors based upon the directors' and tutors' judgment that they can benefit from the use of assisted technology in reading. All students struggle with reading showing poor comprehension and struggle with decoding and word recognition skills. All students display poor academic performance and lack confidence in their reading ability.

Procedures and Data Collection

To date in this ongoing project, the researcher has provided tutor training in the use of the AT software and is preparing materials to be read with the AT. Some of the documents chosen to scan and enter into the AT software were basal reader stories with comprehension questions, vocabulary terms, workbook pages and quizzes.

The researcher will introduce the AT to the students, monitor its use and do all assessments with the students. All assessments are regular classroom assessments normally given in the classroom. Baseline measurements will be taken prior to introducing the AT and final measures will be taken while using the AT. Data collection consists of pretest and posttest assessments, reading assignments, quizzes and teacher and student interviews. The teacher and student interviews will be conducted at the end of the six week study.

Assistive Technology Use

NaturalReader and Microsoft Reader were chosen to use in this study because they are free text-to-speech applications which are readily available from the Internet and are easy to use. The free version of NaturalReader reads approximately 1,000 characters at a time in the computer's default voice; however, more natural sounding voices are available in the reasonably priced versions of the software. In addition, the purchased versions of the software read an unlimited amount of text without stopping and have copy and paste functionality between documents. A purchased version of NaturalReader, which have natural sounding voices, is being used to minimize students misunderstanding the default computer voice.

Microsoft Reader allows you to read electronic books (eBooks) using the computer's default voice on Windows-based devices with the added functionality of creating eBooks. Microsoft Reader includes enhancements such as highlighting and the ability to write notes within the text during reading. To enable Microsoft Reader on the computer, the Microsoft Reader Text-to-Speech (TTS) Package must be downloaded and installed. Both programs include word processing, allowing students to write in text and then hear it read back to them.

EXPECTED RESULTS

From this study the researcher expects the use of text-to-speech AT to improve students' reading literacy. Based on these results, the researcher expects to expand the scope of this study to include a larger population of students in the after school program. Additionally, the researcher will recommend revisions in the teacher preparation program to include more AT activities across the curriculum.

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PRE-SERVICE TEACHERS' INTENT TO USE COMPUTER-BASED TECHNOLOGY: A LONGITUDINAL STUDY

Kioh Kim

Northwestern State University

Sachin Jain

University of Idaho

ABSTRACT

The purpose of this study is to identify the relationship of pre-service teachers' year of enrollment in the instructional technology course and their intent of using computer-based technology in educational settings. Data were collected on one survey instruments with 267 participants in this study enrolled in three different cohorts. The survey instrument was Intent to Use Computer-based Technology Survey (ITUCTS). The results showed that pre-service teachers' year of enrollment in the instructional technology course significantly affected their scores on intent to use computer-based technology.

INTRODUCTION

Technology including computer-based technology has been updated in K-12 schools in the United States for decades, and students feel more comfortable having technology in their classrooms used by teachers compared to students that studied in K-12 schools decades years ago (Twinger, Banyard, & Underwood, 2008). K-12 schools or school districts have technology coordinators to develop technology assisted instruction with other teachers. Students are learning technology-based instruction taught by their teachers and technology coordinators in their school (Lesisko & Place, 2005). As K-12 school students grow up with various technologies in their homes and schools, they expect to use technology by themselves and expect for their teachers to use technology in the classroom (Steward, 2008). Once students graduate from their high schools and enter colleges, they expect technologies to be used by their college instructors as well. Kim, Jain, Westhoff & Rezabek (2008) states that pre-service teachers have more intent to use computer-based technology if they see their college instructors use computer-based technology in the classroom.

Researches exploring the ways in which pre-service teachers can be effectively taught to integrate computer-based technology within their instruction have been very limited. According to the National Center for Education Statistics (2000), teacher preparation for technology integration is minimal, and in 1999 most teachers reported feeling less than well prepared to use computers and the Internet for instruction. Thus, an appeal to amplify attention to this topic in teacher preparation programs has been issued by numerous organizations including the International Reading Association (2002), the National Council for the Accreditation of Teacher Education (2004), and the U.S. Department of Education (1996).

The literature shows that there is a need for better training to pre-service teachers to integrate computer-based technology while they teach. Can this lack in training be fulfilled by proper modeling from faculty of pre-service teachers? This study will explore the relationship between pre-service teachers' year of enrollment in the instructional technology course and perceptions of their intent toward using computer-based technology when they become teachers.

Statement of the Problem

In this study the researcher is interested in identifying a relationship between pre-service teachers' year of enrollment in the instructional technology course and pre-service teachers' intent of using computer-based technology use in the classroom.

Research Question

Given this research problem, the guiding question of the study is: Do pre-service teachers' year of enrollment in the instructional technology course have any relationship with the pre-service teachers' perceptions of their intent toward using computer-based technology?

METHODOLOGY

Participants

There were 267 pre-service teacher participants in this study. They were enrolled in “Teaching with Microcomputers” class at a major university in Rocky Mountains. There were 179 female participants and 88 male participants. The age of participants was between 18 years and 59 years.

Procedure

Data were collected in “Teaching with Microcomputers” course across three cohorts of pre-service teachers. The researcher distributed the questionnaires to each section during the same week of the semester. The participation of subjects was voluntary in nature.

Instruments

Intent to Use Computer-based Technology Survey (ITUCTS): ITUCTS was adopted from the writings of Bichelmeyer, Reinhart, and Monson (1998) and Wang (2001). The ITUCTS instrument is divided into two sections, each section has 12 questions. The first section addresses the pre-service teachers’ perceptions of their future role in a classroom equipped with computer-based technology (Role). Both the sections used a Likert scale from (1) Never to (5) Frequently.

Data Analysis

Longitudinal data on the ITUCTS were organized in SPSS 11.5 statistical software to analyze. This study used regression analysis to determine the relationship between year of enrollment and four dimensions of ITUCTS. Independent variables was year of enrollment. Dependent variables were four dimensions of pre-service teachers’ intent to use computer-based technology survey.

RESULTS

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject’s overall score on Intent to Use Computer-based Technology (Table 1).

Table 1

Relation between Pre-service Teachers’ year of enrollment in the instructional technology course and Intent to Use Computer-based Technology

<i>Predictor Variables</i>	<i>Criterion Variables</i>	β	<i>t</i>	<i>p</i>	R^2
Pre-service teachers’ year of enrollment in the instructional technology course	Intent to Use Computer-based Technology	0.229	3.823	0.001*	0.052

* significant at 0.10 level

Analysis of the best fitting line when data were entered showed that as subjects’ year of enrollment in the instructional technology course increased, their score on Intent to Use Computer-based Technology Survey also increased. Further regression analysis is conducted to evaluate the relationship between the year of enrollment in the instructional technology course with dimensions of Intent to Use Computer-based Technology.

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject’s overall score on the role dimension of the Intent to Use Computer-based Technology scale (Table 2).

Table 2

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Role)

Predictor Variables	Criterion Variables	β	t	p	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Role)	0.206	3.426	0.001*	0.042

* significant at 0.10 level

Analysis of the best fitting line when data were entered showed that as pre-service teachers' year of enrollment in the instructional technology course increased, their score on the role dimension of the Intent to Use Computer-based Technology Survey also increased

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject's overall score on teacher-centered role of Intent to Use Computer-based Technology (Table 3).

Table 3

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Teacher-centered Role)

Predictor Variables	Criterion Variables	β	t	p	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Teacher-centered Role)	0.144	3.402	0.001	0.042

** significant at 0.05 level

Analysis of the best fitting line when data were entered showed that as Pre-service Teachers' year of enrollment in the instructional technology course increased, their score on overall teacher-centered role dimension of Intent to Use Computer-based Technology Survey also increased.

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject's overall score on student-centered role dimension of Intent to Use Computer-based Technology (Table 4).

Table 4

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Student-centered Role)

Predictor Variables	Criterion Variables	β	t	P	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Student-centered Role)	0.139	2.290	0.033	0.023

** significant at 0.05 level

Analysis of the best fitting line when data were entered showed that as Pre-service Teachers' year of enrollment in the instructional technology course increased, score on overall student-centered role dimension of Intent to Use Computer-based Technology Survey also increased.

Analysis of data showed that Pre-service Teachers' year of enrollment in the instructional technology course significantly predicted subject's overall score on the use dimension of the Intent to Use Computer-based Technology scale (Table 5).

Table 5

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Use)

<i>Predictor Variables</i>	<i>Criterion Variables</i>	β	<i>t</i>	<i>P</i>	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Use)	0.152	2.498	0.000**	0.013

** significant at 0.05 level

Analysis of the best fitting line when data were entered showed that as Pre-service Teachers' year of enrollment in the instructional technology course increased, their score on the use dimension of the Intent to Use Computer-based Technology Survey also increased.

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject's overall score on teacher-centered use of Intent to Use Computer-based Technology (Table 6).

Table 6

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Teacher-centered Use)

<i>Predictor Variables</i>	<i>Criterion Variables</i>	β	<i>t</i>	<i>p</i>	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Teacher-centered Use)	0.144	2.367	0.019	0.021

** significant at 0.05 level

Analysis of the best fitting line when data were entered showed that as Pre-service Teachers' year of enrollment in the instructional technology course increased, their score on overall teacher-centered use of Intent to Use Computer-based Technology Survey also increased.

Analysis of data showed that the year of enrollment in the instructional technology course significantly predicted subject's overall score on student-centered use of Intent to Use Computer-based Technology (Table 7).

Table 7

Relation between Pre-service Teachers' year of enrollment in the instructional technology course and Intent to Use Computer-based Technology (Student-centered Use)

<i>Predictor Variables</i>	<i>Criterion Variables</i>	β	<i>t</i>	<i>p</i>	R^2
Pre-service teachers' year of enrollment in the instructional technology course	Intent to Use Computer-based Technology (Student-centered Use)	0.130	2.140	0.033	0.017

** significant at 0.05 level

Analysis of the best fitting line when data were entered showed that as Pre-service Teachers' year of enrollment in the instructional technology course increased, score on overall student-centered use dimension of the Intent to Use Computer-based Technology Survey also increased.

DISCUSSION

Comparison of the data from the three different surveys conducted in 2003, 2005, and 2007 showed the improvement of teacher education students' intent to use computer-based technology when they become teachers in the future. Technology including computer-based technology has been updated in K-12 schools in the United States

for decades, and students feel more comfortable having technology in their classrooms used by teachers compared to students that studied in K-12 schools decades years ago (Twinger, Banyard, & Underwood, 2008). Teacher education students today have experienced much technology advancement not only in the classroom but also at their homes. They are also accustomed to the visual simulation of television, computers, and vide games. K-12 schools or school districts have technology coordinators to develop technology assisted instruction with other teachers. Students are learning technology-based instruction taught by their teachers and technology coordinators in their school (Lesisko & Place, 2005). Kim, Jain, Westhoff & Rezabek (2008) states that pre-service teachers have more intent to use computer-based technology if they see their college instructors use computer-based technology in the classroom.

Results of this study is supported by previous literature and has contributed to the literature by exploring the trends in the technology training to the pre-service teacher as that plays an important role (Kim, Jain, Westhoff & Rezabek) in integrating technology in their own teaching. As K-12 school students grow up with various technologies in their homes and schools, they expect to use technology by themselves and expect for their teachers to use technology in the classroom (Steward, 2008). Once students graduate from their high schools and enter colleges, they expect technologies to be used by their college instructors as well. Hence, they expect technology to be used effectively as part of their learning experience, and are willing to use technology in their future classrooms.

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USING RENEWABLE ENERGY SYSTEMS TO HELP DEVELOP STUDENTS' THINKING SKILLS

Nasim Lari

North Carolina State University

Aaron C. Clark

North Carolina State University

ABSTRACT

This paper describes a research project, funded by the National Science Foundation, aimed at developing students' thinking skills in a data-rich learning environment using data collected from renewable energy technologies at the North Carolina Solar House located on the campus of North Carolina State University. This project has funded the installation and testing of a renewable energy data acquisition system that currently provides this project with a living laboratory for teaching and learning integrated scientific, mathematical and technological concepts. The data acquisition system allows for the development of instructional units designed for engineering, teacher education and construction technologies.

INTRODUCTION

The purpose of the Green Research for Incorporating Data in the Classroom (GRID_C) project is to develop curriculum to teach science, technology, engineering and mathematics (STEM) concepts using data collected from renewable energy technologies at the North Carolina Solar House (NC Solar House) located on the campus of North Carolina State University. Researchers have shown the value of using real world data to enhance instruction in mathematics, science and social studies (Drier, Dawson & Garofalo, 1999; Gordin, Polman & Pea, 1994). Climate and environmental databases, such as the Quantitative Environmental Learning Project website (Langkamp & Hull, 2002) are available to educators to support instruction.

The GRID_C data acquisition system provides data on overall energy gain by three photovoltaic systems, two solar thermal systems and a wind turbine, as well as the NC Solar House's energy use. In addition, meteorological measurements correlate the system performances to the environment.

Thus, the data obtained from this project is divided into two categories. The first involves real time data collected through the data acquisition system, which includes readings such as current, voltage, and energy for photovoltaic cells, and flow rate, temperature, and energy for hot water heaters. The second involves student data. Through the development of curriculum around the data acquisition system, and implementation of the curriculum, specific data regarding student knowledge gained in the units, their level of reflection, and awareness of their cognitive processes as they approach and solve problems, was gathered.

In order to assess student knowledge, application, and reflection, three instruments were used. Alternative versions of a multiple choice test were developed by a panel of content experts to measure knowledge, specific activities were designed to measure the application of knowledge gained, rubrics were developed to measure student performance, and a metacognitive inventory was prepared to measure reflection.

The instructional modules developed were reviewed to ensure that they broaden opportunities and enable the equitable participation of women, nontraditional age groups, underrepresented minorities, and persons with disabilities. Subjects vary in age and class rank given the mix of community college students and university students enrolled in lower and upper level courses.

DATA ACQUISITION SYSTEM

The core of the GRID_C data acquisition system is located at the NC Solar House, on the NCSU campus. The NC Solar House was first opened to the public in 1981, and is today, one of the most visible and visited solar buildings in the United States.

The NC Solar House incorporates readily available solar and energy-efficient technologies to demonstrate how those technologies can be effectively incorporated into a typically designed house. Some key features of the Solar House include a centrally located sunspace, two thermal storage walls, an active solar hot water system, a photovoltaic system, solar tubes, a geo-thermal heat pump, earth berming, natural architectural shading devices, and energy efficient appliances.

The monitoring system provides data on overall energy gain by the three photovoltaic systems, two solar thermal systems and a wind turbine, as well as the facility's energy use. Meteorological measurements correlate the system performances to the environment while the temperatures in the sunspace show passive solar gain through the architecture design on the house.

The developed system records the following data for:

The Solar House

- Meteorological - irradiance
- PV - AC and DC power (current and voltage), energy meter (kWh)
- Hot Water - flow rate, temperature in/out, energy meter (kWh)
- General - building kWh meter, heat pump energy meter (kWh)
- Passive Solar - first and second floor sun space temperatures;

The Alternative Fuel Vehicle Demonstration Facility (Garage)

- Meteorological - ambient temperature, irradiance, anemometer, module temperature
- PV - AC and DC power (current and voltage), energy meter (kWh), and panel temperature
- Hydrogen Fuel Cell - power in/out (current and voltage), energy meters (kWh);

The Technology Demonstration and Research Site

- Meteorological - wind speed, ambient temperature, irradiance, rain gauge, barometric pressure, relative humidity
- PV - AC and DC power (current and voltage), energy meter (kWh), and panel temperature
- Hot Water - flow rate, temperature in/out, energy meter (kWh)
- Wind - AC and DC power (current and voltage), energy meter (kWh), anemometer, and wind vane.

Data from these systems will be collected, averaged over 15 minutes, and uploaded to a Heliotronics data acquisition system, an Internet-capable educational software, where daily, monthly, and yearly information can be viewed graphically, or downloaded in a spreadsheet form. The aggregated GRID_c data was used by instructors to develop instructional units to be implemented in various courses.

INTEGRATION OF GRID_c DATA INTO CURRICULUM

In order to develop students' higher order thinking skills in the context of a data-rich learning environment, curriculum was developed using the data acquired through the GRID_c data acquisition system. Researchers have shown the value of using real world data to enhance instruction in mathematics, science and social studies. Research on technological problem solving, critical thinking, novice/expert performance and metacognition reveal a common thread for developing these skills. Students must understand factual, conceptual and procedural knowledge, apply their knowledge to learn by doing, and then reflect on the process that led to the solution (Bransford, Brown & Cocking, 2000; Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Raths & Wittrock, 2001).

In accordance with these purposes, at the completion of each unit, students will have achieved certain learning objectives. They will understand the different components of renewable energy systems and the engineering process used to design and/or evaluate these systems. Students will be able to relate discipline specific knowledge to the renewable energy systems under study and apply knowledge to evaluate the appropriateness of renewable energy systems in given situations. Finally, they will be able to identify strategic knowledge and processes used to make decisions based on data analysis.

An advantage of using data derived from renewable energy technologies as a content area is that undergraduate students have the prerequisite knowledge to understand the technology and related data because the data reflect the performance of the technologies based on earth science concepts. Since basic concepts of earth science are applied to the design of technologies that capture solar and wind energy, many of the concepts that are taught in earth science courses allow for cross discipline instruction—science, technology, engineering, and mathematics—that enhances understanding within each discipline.

To allow students access and make this data resource widely available, an Internet site was created to display all data monitored at the Solar House. This website enables faculty to use the GRID_c data in their classrooms at any time and assign learning activities related to this resource.

STUDENT DATA & ASSESSMENT

Three instruments were used to measure knowledge, application and reflection. Knowledge (factual, conceptual, and procedural) gained was measured through pre- and post-test analysis. Alternative versions of a multiple choice test were developed by a panel of content experts. Each test consisted of a set of core questions (i.e., common questions across disciplines) as well as discipline-specific questions. Post analysis was conducted to measure reliability and an item analysis done for continuous improvement of the measures.

Application of knowledge gained in the units developed was measured through certain activities, and rubrics were developed to measure student performance on assigned activities. Once again, a panel of content experts was used to develop the rubrics and a separate panel was used to validate the measure. Post analysis was done to determine reliability and to insure continuous improvement. Finally, to measure reflection, quantitative and qualitative analysis was conducted on student journals.

Additionally, a Metacognitive Inventory (MI) was developed to evaluate students' awareness of their cognitive processes as they approach and solve problems. This inventory was designed such that it may be used in the varied situations in which the developed curricula are implemented. Student data was collected from the following classes:

TED 221 Construction Technology, NCSU, College of Education, Department of Mathematics, Science and Technology Education: This course provides an overview of residential and commercial structures and their construction.

EMS 373 Instructional Science Materials, NCSU, College of Education, Department of Mathematics, Science and Technology Education: This course teaches students to develop and select teaching materials that reflect concepts of content, with an emphasis in middle and secondary school science.

MAE 421 Design of Solar Heating Systems, NCSU, College Engineering, Department of Mechanical and Aerospace Engineering: This course involves the analysis and design of active and passive solar thermal systems for residential and small commercial buildings.

CST 293 Selected Topics in Energy Efficient Building and Design, Pitt Community College, Construction and Industrial Technology Division: This course familiarizes students with building principles that form the basis of energy efficient building and design. Students will be exposed to passive solar design, thermal analysis, indoor air quality, and studying the house as system.

TED 532 Current Trends in Technical Graphics Education, NCSU, College of Education, Department of Mathematics, Science and Technology Education: This course discusses the current trends in technology, techniques, and theories relating to technical graphics education.

Subjects included students enrolled in MAE 421, TED 221, EMS 373, CST 293 and TED 532. Subjects vary in age and class rank given the mix of community college students and university students enrolled in lower and upper level courses. The instructional modules developed were reviewed to ensure that they broaden opportunities and enable the equitable participation of women, nontraditional age groups, underrepresented minorities, and persons with disabilities. Use of the database and implementation of the instructional modules to increase the participation of women in technology and engineering was a priority. Notably, the partnership in this proposal with Pitt Community Colleges enhances the involvement of diverse populations in project activities.

CONCLUSION

The first instructional unit, utilizing GRID_C data, was implemented in EMS 373 in the 2008 fall semester. There was a significant increase in scores on the MI ($t(10)=3.61$, $p < .01$) and baseline data on student thinking process showed the average number of thinking techniques used was 2.7 and number of steps in their problem solving process was 5.4. A multivariate analysis revealed a relationship ($r=.59$) between the number of steps used to solve problems and the number of thinking techniques recorded in their engineering log. With $n=10$, the analysis does not have the power for generalization but it does show some valuable possibilities for gaining a better understanding of learning in a data-rich environment. Additional data, collected in the spring 2009 semester, will allow for more conclusive quantitative analyses.

Future research includes broadening the data acquisition system will further enhance students' opportunities to conduct comparative analysis and aggregate data for decision-making, and refinements to the curriculum. Through the variety of courses offered among the partnering institutions, this curriculum will reach a sizeable and diverse population of science, engineering, and technology students, better enabling students to learn about renewable energy technologies through coming to appreciate the variables and variable relationships that are controlled by the technologies' design and function. The GRID_C research project has national implications for improving STEM education, and will provide a platform for continued research and development of instructional material that improve STEM education.

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EDUCATIONAL REFORM THAT CHANGED A STATE

James K. Hawkins

Cameron University

ABSTRACT

While serving as governor of Mississippi from 1980 until 1984, William F. Winter envisioned education as a key to moving Mississippi away from poverty. He championed educational reform as the means for improving schools with low student achievement. Winter's goal was to improve K-12 education by implementing three needed improvements: public kindergarten, compulsory attendance, and a lay board of education. During the first two years of his administration, Winter struggled to gain support from within the legislative body itself. Mores of Mississippi, which relegated African Americans to a lesser role of social status, were difficult to overcome without causing a great deal of social upheaval. Winter's goal of educational reform was inclusive and not just aimed at the whites of Mississippi. This necessitated carefully calculated planning. It was not until a controversial ending to the 1982 regular session that Winter began to explore options of calling a special session and promoting the goals for education to the constituents of the legislators. Through a series of nine public forums that were carefully crafted to explore the issues and spotlight the legislators for that particular venue, Winter and his band of young supporters, called the "Boys of Spring", were able to bring about a paradigm shift in attitudes and beliefs.

INTRODUCTION

While serving as governor of Mississippi from 1980 until 1984, William F. Winter envisioned education as a key to moving Mississippi away from poverty. He championed educational reform as the means for improving schools with low student achievement. From the beginning of his tenure, Winter's goal was to improve K-12 education by implementing three needed improvements: public kindergarten, compulsory attendance, and a lay board of education. During the first two years of his administration, Winter struggled to gain support from within the legislative body itself. Mores of Mississippi, which relegated African Americans to a lesser role of social status, were difficult to overcome without causing a great deal of social upheaval. Winter's goal of educational reform was inclusive and not just aimed at the whites of Mississippi. This necessitated carefully calculated planning. It was not until a controversial ending to the 1982 regular session that Winter began to explore options of calling a special session and promoting the goals for education to the constituents of the legislators. Through a series of nine public forums that were carefully crafted to explore the issues and spotlight the legislators for that particular venue, Winter and his band of young supporters, called the "Boys of Spring", were able to bring about a paradigm shift in attitudes and beliefs. The focus of this paper is to examine Winter's leadership style, relate the story of reform, and highlight one man's dream for his state. Winter was a master at surrounding himself with a high quality and high energy staff, designing a plan for success, and knowing what changes needed to be made and how to bring them about effectively.

Educational reform was needed in Mississippi in order improve the state not only educationally but to improve the national image of Mississippi and to improve the state economically by attracting new and much needed industrial development. Integration of Mississippi's public schools had a significant impact on educational opportunities for both black and white students. By the fall of 1970, every public school district in Mississippi had been desegregated. At practically every turn, whites worked to subvert desegregation. As white districts consolidated administrative personnel, black administrators were often fired or demoted to secondary roles. Many black principals were demoted to assistant principals and black teachers who supported the civil rights movement were labeled as less qualified than white teachers and fired. In 1969-1970 Mississippi public schools had 168 black principals; by 1970-1971, that number was down to nineteen. The number of black teachers fell twelve percent, while the number of white teachers rose by about 9 percent. The loss of black role models was one more indication that integration would be conducted on terms established by the white community. In addition to creating a unitary school system, desegregation produced several unintended consequences. Most notable was "white flight" and creation of private schools. In 1968, the Mississippi Private School Association was formed and

by 1970, there were over sixty private schools affiliated with the MPSA. Between 1966 and 1970, the number of private school in Mississippi nearly doubled (Bolton, 1970).

Eubanks (2006) in his book, *Ever is a long, long time* speaks to Mississippi in 1965 instituting a “freedom of choice” plan for its schools, which supposedly permitted all parents, black and white, to send their children to the school of their choice, even the white school in town. Just as the white power structure wanted, very few blacks made that choice. What was said by most grown-ups was that freedom of choice was the freedom to choose to have white people destroy you. Eubanks said that there was certainly a great deal of truth in that. Those few blacks who chose to go to the white school eventually came back to the black school with broken spirits and tales of mistreatment by students and teacher. Relating a personal story, he said:

We were at the center of the black social order where black professionals like my parents, teachers, county agents, and small business owners lived. Because I was the child of educated professionals, some might say I belonged to a privileged class of people, blacks with a sense of noblesse oblige, if there could be such a thing in Mississippi. My family was far from being part of a privileged class: We were BLACK, my parent's meager incomes barely above the poverty line, and we were outsiders. In Mississippi, as far as white people were concerned, you couldn't get any lower than that.

Mississippi's social and political system was set up to keep black people poor and uneducated. Even if you had an education, professional options were few and many parents held jobs that was part of that limited realm. When I was growing up, it all seemed painfully normal, nothing exceptional: but looking back now, I realize how extraordinary it was. We lived a dignified life in an undignified system of racial segregation, largely ignoring the confines of the system. What I asked myself time and again when I discovered a tie between my parents and the Sovereignty Commission files was, were my parents threatening because of the way they lived their lives? Along with the feared outside agitating advocates of integration, what I knew and remembered from over-hearing snatches of adult conversation was that people like my parents had to be watched and kept in line, just to make sure they did not try to rise above their station and try to be equal to white folks. Together, my parents fit the profile of the dreaded “uppity negroes” who had to be kept in check (Eubanks, 2006).

State leadership in Mississippi realized in the early 1960's that significant progress could not take place in the state without an educated citizenry. A case in point was Senate Bill 1670 authorizing the Mississippi Research and Development Council to contract for an exhaustive study of the state's educational needs and to “make recommendations calculated to produce a coordinated educational program which will attain the maximum development of human and other resources in the state of Mississippi”. Another example was Governor Paul B. Johnson's letter of transmittal to fellow Mississippians, highlighting two major concerns of the report. He declared: “(1) our children are not receiving as effective an education as they need, if they are to compete successfully in the world in which they are going to have to make a living; and (2) our economic development goals cannot be achieved unless we greatly strengthen our total educational system” (DeVitis & Vold, 1991).

Mississippi is a state with navigable rivers, fertile soil, natural resources, and a climate that lends itself to almost any activity with over two-hundred fifty days of sunshine. Mississippi is a decidedly diverse state. The state is home to excellence in the arts, history embodied in architecture, and graciousness in manners. Educationally Mississippi has fifteen community colleges, eight private institutions, and eight public institutions of higher education.

The relatively calm and serene beauty of the state has been historically overwhelmed by events associated with rights of all of the Mississippi citizens. In May of 1954, the U.S. Supreme Court in its' landmark *Brown vs. Board of Education* decision ruled segregation in public schools unconstitutional. Two years later in 1956, Mississippi Senator James O. Eastland coauthored the “Southern Manifesto” which called for massive resistance to the U.S. Supreme Court desegregation rulings. Also in 1956, the Mississippi House voted 129-2 for a bill sponsored by House Speaker Walter Sillers to create the Mississippi Sovereignty Commission to fight integration. Eight days later on March 29, 1956, Governor J.P. Coleman signed the Sovereignty Commission bill into law and sat a chairman of the commission. In 1961, James Meredith (a black man) applied for admission to the University of Mississippi and was rejected. The next year (1962) Meredith's enrollment application to Ole Miss was ordered to be “made effective immediately”. With the help of federal troops ordered in by President John F. Kennedy Meredith enrolled at Ole Miss. The U.S. Supreme Court ordered that public school integration must occur “with all deliberate speed”.

Mississippi has had a history of denying equal educational opportunities to its' minority children. For the first half of the 20th Century Mississippi's public education system was one of separate and not equal. In 1916, the

per capita expenditure for each white child in school was \$10.60, and for each black child, \$2.26 in 1939, for every \$9.88 spent on each white student only \$1.00 was spent on blacks. The 1943 ratios were \$8.27 for whites to \$1.75 for blacks. In 1965, the ratios were \$10.29 to \$2.10 (Mullins, 1992).

REFORM WAS NEEDED

It was a full 15 years after *Brown vs. Board of Education* that Mississippi seriously began the process of integrating its public school system. By that point, white flight may have rendered school integration plans largely ineffective (Hayden, 2004). Mississippi looked like many other states before integration, white students getting a majority of the tax money and the black students receiving less money which translated to poor facilities, poor materials, lower paid teachers and more importantly loss of consortium that would be gained by having black role models to help them overcome these dire conditions. After integration, the state's problems were only beginning.

The private school population rose from 21,817 students in 1967 to 63,366 students in 1972. This "white flight" also shifted emphasis from public to private schools. With a majority of the state legislature being white, a majority of funds would not be sent to the public schools hence a further decrease in the quality of public education would result in loss of economic development, national image, and social conditions (W. Winter, personal communication, April 12, 2005).

Few informed Mississippians would fail to classify the state's poor educational system as one of the greatest impediments to state progress. Indeed, just as economic data have reminded them of their general impoverishment, grim statistics have substantiated Mississippi's poor record and lowly status in educating its citizenry. In virtually every category of public education, from high school graduation rates and expenditures per schoolchild to pupil performance on standardized tests or teacher salaries, statistics have regularly place Mississippi at or near the bottom of the nation. Statistics led the state of Mississippi to a sobering reassessment of its priorities. In recent years, citizens have come to a greater understanding of the relationship between economic impoverishment and a poor educational system. Perhaps at no time in the history of Mississippi has this relationship been more skillfully communicated than in the successful 1979 gubernatorial campaign of William F. Winter. (DeVitis & Vold, 1991).

Legislative interaction was at the forefront of problems with education in Mississippi. In the early 1960's State Legislator Russell Fox from Claiborne County was categorized as "vicious" by journalist Bill Minor. He said that Fox worked very closely with House Speaker Walter Sillers. When Fox and Sillers did not want to hear any more about some bill that would improve education for blacks, Russell Fox would be the "killer of the legislation". With as many as 10 to 20 legislators standing, waiting to be recognized, Sillers would recognize Fox who would get up and say, "Mr. Speaker, gentlemen, does this mean that those negroes can be paid the same as the whites in this bill?" "Mr. Speaker", Fox would continue, "I move we indefinitely postpone this bill". That was the way it was done to keep the whites in a position of supremacy and blacks in a position of oppression (B. Minor, personal communication, Oct 19, 2004).

Students at black elementary schools were given the "hand me down" books that had been used for years. In the front cover of all public school books was a place to list the student and what year he had used the book. When the front cover label was filled, a new one was inserted on the inside of the back cover and it would be filled with student's names and the year of use. When both labels were full and after a period of at least twelve years, the books would then be given to the black elementary school students to use. The books would be old and outdated but they were better than nothing and could serve as a guide to teaching. A former student bearing witness to this time said that he could remember it like it was yesterday when his mother would say, "Let me see the book", and just nod knowing it was all they had to go by (W. Johnson, personal communication March 1, 2006).

On Friday November 7, 2003, the William F. Winter Archives and History building was dedicated in Jackson, Mississippi. The building stands as a testimony to the life long efforts of former governor William F. Winter. The building houses books, maps, government records, films, and newspapers relating to Mississippi history. The keynote address was given by Pulitzer Prize winning historian and journalist the late David Halbersam. Speaking at the dedication, Halbersam said that Governor Winter had helped forge positive changes in a state with a history complicated by race. He also said,

"Governor, you're my favorite politician. You're my hero. I believe for a long time that America would not be whole until Mississippi really became part of it. And you, more than any other politician, are the architect of a new Mississippi and thus, the New America (Pettus, 2003)."

While serving as governor of Mississippi from 1980 until 1984, Winter envisioned education as a key to moving Mississippi away from poverty by creating schools that would allow all Mississippians to gain an opportunity to either learn a trade or skill or attend college. The components of Winter's improvement plan were based on three pillars of change: public kindergarten, a compulsory attendance law, and a lay board of education. He championed educational reform as the means for improving schools with low student academic achievement. Winter labeled himself as a racial moderate and was an intellectual; which was not always popular or a helpful attribute in Mississippi politics. His calls for educational reform were not popular in a state where a majority of white children was in the private schools that were opened as a result of court ordered desegregation. The call for educational reform was construed by many Mississippians as an attempt to improve the plight of the Blacks in Mississippi. Constantly and consistently, William Winter would speak to "what is good for Mississippi" and not let his comments carry color themes (W. Winter, personal communication October 19, 2004). Through educational reform, Winter hoped to lead Mississippi to the head of the class of the New South (Anklam, 1982). In a National Public Radio interview in 1994, William Winter said that his kindergarten efforts were not supported because kindergarten was thought to be only for the white children in private schools and the legislature was not about to change it. Winter said in a NPR (National Public Radio) interview in 2004 that black children didn't go to school after 6th grade when he was a child. Winter said he never saw them get on the bus as he did, and only a very few of the children he started elementary school with graduated from high school. Winter said he really never understood until years later why. Even though his parents taught him to respect everyone, he was, as a child, only observing and not questioning. Winter related how he had to overcome a very personal prejudice that was attached to his very name. He said his mother and father named him William Forrest Winter, with the Forrest coming from Nathaniel Forrest, the founder of the Ku Klux Klan organization (W. Winter, personal communication, October 19, 2004). A top aide of William Winter, Dick Molpus, said that on more than one occasion he heard from Delta residents, "the best way to ruin a good field hand is to educate him." Unfortunately, during the first two years of his administration the plan never received the legislative backing needed for passage. While race was never addressed publicly and openly, according to William Winter, the real battle in educational reform was in changing attitudes as well as those that took place in the political arenas of the state legislature.

In December 1982, after adjournment of the regular session of the state legislature, where yet another attempt at reform failed, Winter called a special legislative session to focus only on education related items. Before the special session started, Winter and his committed supporters, "The Boys of Spring", crisscrossed the state holding a series of nine public forums for the purpose of gaining support for the legislation that was to come up in the special session (Mullins, 1992). When the special session convened in December, 1982, public support that was organized from and a derivative of the nine public meetings drove the passage of the Education Reform Act of 1982, which provided legislation for mandatory kindergarten, compulsory attendance, and a lay state board of education. Two decades later, credit for that landmark legislation is attributed to Winter, his supporters and staff, and those who served in the 1982 state legislature.

When the Educational Reform Act became law in December, 1982 Governor Winter said:

At no other time in the history of Mississippi has a Legislature come into a special session and in a two-week period of time enacted so sweeping a series of measures as has this Legislature. This bill is one of the most significant things any Legislature has done in this State. From this point, we are going to commit ourselves to be competitive with every other state. This education package represents a break with the old do-nothing spirit of the past (Mullins, 1992).

National syndicated columnist Carl Rowan wrote:

The greatest piece of civil rights, national security and economic recovery legislation enacted this year does not bear any of those labels and did not come out Of Congress. It is the bill enacted by the Mississippi Legislature to spend \$106 Million to give children of that state a more reasonable chance at a decent education and to lift Mississippi out of the ignominy of being the worst educated most backward state in the union (Fitzwater, 1983).

In a time of national economic recession and after two failed attempts at gaining passage of much needed reform, Winter turned to a grassroots effort to gain support for his reforms. The forums that were held throughout the state and the structure of those forums provided the citizens of the state with an opportunity to meet, greet, question, and interact with their legislators in a personal way. The staff of William Winter worked tirelessly to provide an opportunity for the needed programs in education to be put in place and funded (Mullins 1992).

Governor Winter uniquely used his power as “the governor,” in conjunction with his ability to work with and through people to bring about the much-needed reform. The single most important factor that Winter used to his advantage was his knowledge of the intricacies of state government. During his long and distinguished career in public service, he had participated in and observed nearly every aspect of state government. When it came time to change, Winter knew where to press and where to hold off remarkably well. Winter had the vision as the leader, and kept his staff of helpers focused on the goal. The leadership exhibited by this one term governor is an example for all to emulate because of the results attained.

Winter manipulated the structure and organization of the nine forums to focus not on him, but on the legislators in attendance. He encouraged and provided a vehicle for the public to talk one on one with their legislators and tell them how valuable educational reform was; how much it was needed; and more importantly, how they as the voting public would expect them to support the reform efforts. It was a stroke of genius coupled with the calendar timing of the special session to again put the pressure on in a timely manner.

While Governor Winter was quick to give credit to his staff, they in turn knew that the impetus for this reform movement came from him and his collaborative leadership style. Winter worked long and hard for his program. The end result was an improved educational climate in a state that was tired being laughed at because of national ratings. The change provided Mississippians with an opportunity to attract industry, display the state as a retirement haven, and provide the current citizens with an area that was being strengthened and improved.

In 2002, the Mississippi Department of Education released a report outlining progress made by the state since the passage of the Mississippi Education Reform Act of 1982. The report cited the design of the Act to achieve educational excellence through the following four means: improved state school governance, leadership and finance, improved professional preparation and growth of school personnel, improved school performance, and higher student achievement.

Specifically, the Education Reform Act of 1982 strengthened state leadership of Mississippi’s public schools. The state superintendent and members of the Mississippi Board of Education are now appointed positions that provide strong, nonpolitical leadership in public education. The Act also provided the impetus for development of a new performance-based accreditation system to emphasize the outcomes of education, specifically those related to student achievement. In addition, the Commission on School Accreditation and Mississippi Board of Education developed process standards to ensure school districts provide quality-learning environments for students.

Additionally, the Act heightened public awareness for the need for educational improvements and paved the way for the passage of the Mississippi Adequate Education Program (MAEP). Now the vehicle for funding school districts (MAEP) has resulted in the issuance of over \$507 million in State Aid Capital Improvement Bonds and more than 9,000 new and renovated classrooms all aimed at improving the quality of education in the state of Mississippi.

Significant changes in the teacher and administrator licensure process have taken place since the passage of the Education Reform Act. The Commission on Teacher and Administrator Education, Certification and Licensure and Development was created to make recommendation to the Mississippi Board of Education regarding standards for the certification and licensure and continuing professional development of Mississippi teachers and administrators. Teaching competencies were piloted and validated and became criteria for clearing provisional certification; as a result, all 15 schools of education restructured their undergraduate curriculum based on these teaching competencies.

In 1994, the Mississippi Teacher Center was established to attract and retain quality teachers in Mississippi. The Center has also implemented several programs outlined in the 1998 Mississippi Critical Teacher Shortage Act, a package of innovative teacher recruitment incentives, including the Critical Needs Scholarship Program and the Mississippi Teacher Fellowship Program.

The Education Reform Act of 1982 established a task force to develop a system of assuring the quality of school programs in Mississippi. This new performance-based school accreditation system was based upon measures that focus on the extent to which schools help students master defined content and objectives. The new system also changed the attendance process from voluntary to compulsory for all schools. In addition, uniform curriculum is now in place in all Mississippi school districts. The Mississippi Curriculum Frameworks are written by Mississippi classroom teachers using national standards for each content area, giving educators flexibility to teach skills and organize all courses from basic to advanced. The Frameworks are measured by the Mississippi Curriculum Test, a criterion-referenced test that is currently administered to students in grades 2-8. Mississippi teachers have been involved in every phase of the development of criterion-referenced tests. Overall attendance rates have improved by two percentage points since 1982. The dropout rate has also decreased since the Act.

From 1987 through the last use of the Stanford Achievement Test, the average Normal Curve Equivalent (NCE) scores have increased in each subject area tested at grades four and six. On the Iowa Test of Basic Skills (ITBS), administered statewide to students in grades 4-9 each fall from 1994 through 1998, there were significant gains in

both cohort group performance and the annual performance at individual grade levels over a five-year period. In 2000, Mississippi was one of seven states in the nation recognized by the National Education Goals Panel for raising achievement. In addition, the state consistently reduced the percentage of fourth graders scoring below achievement from 1992 to 1998 on the National Assessment for Educational Progress

"This report is a preliminary look at Mississippi's progress since the passage of the Education Reform Act of 1982," said State Superintendent of Education Dr. Richard Thompson. "Our information clearly shows that Mississippi's public education system has made very consistent and significant progress over the past 20 years. We are continuing to gather information and data that will be included in our final report (Mississippi Department of Education, 2002)."

In a speech presented at the University of Mississippi, October 25, 2005, Rita Bender shared the following information:

The Mississippi Sovereignty Commission was created in 1956 by the Mississippi State Legislature with a stated purpose of "doing and performing any acts deemed necessary and proper to protect from encroachment by the Federal Government and to resist the usurpation of the rights and powers of the State." The Sovereignty Commission reports and memoranda were not made public until 1998 following 16 years of litigation and several orders of the U.S. Courts. The information gleaned from these records contained about 87,000 entries that thousands of people were subject to the dangerous attention of the Commission. The State of Mississippi has never admitted its involvement and culpability for the many heinous crimes that it aided and abetted. These crimes were not isolated acts of a few, but were crimes tainted with government misconduct. The Governor of Mississippi was, in fact, the chair of the Sovereignty Commission, which was funded by the tax paying citizens of Mississippi. In fact, with 40% of the state being African American, they paid to preserve an unconstitutional and oppressive system of government. The Sovereignty Commission funded the White Citizens Councils. The Councils spread racist ideology, which served to encourage violence. The Commission gathered information about would be Black voter registrants and passed their names on. The results being the banning of the Black workers from working, living, or holding any jobs which affected some families who had lived and worked for generations in an area of Mississippi. The Commission disseminated information about persons in the community who were providing housing or other assistance to civil rights workers, resulting in beatings, fire bombings, and murders. Names such as Herbert Lee, Lewis Allen, Medgar Evers, Vernon Dahmer, James Cheney, Mickey Schwerner, & Andy Goodman are famous in Mississippi as patriots who tried to assist African Americans in a search for equality. The stories would go on and on as to how the Commission tried to protect Mississippi from integration. Governor Winter today is called "liberal" by persons I have spoken to about him in putting together this study. The William Winter Institute for Racial Reconciliation is such a positive step yet such an unpopular effort even today. Even the day after Edgar Ray Killen was sentenced to life, present day Mississippi Governor Barbour when criticized by Ben Chaney, brother of James Chaney, for wearing a confederate lapel pin, said if anyone did not like it, "tough." That very same week that Killen was sentenced, the two Mississippi U.S. Senators, Trent Lott and Thad Cochran, refused to join 92 other Senators in a resolution of apology for the Senate's failures to pass anti-lynching legislation. It is interesting to not that had such legislation passed, many of the 581 lynched in Mississippi (highest in the nation) would have been saved ("Legacy of Slavery: 2005).

Winter was forced to confront racial bias and years of prejudice with the people of Mississippi one on one and face to face, focusing on what was best for the children of Mississippi without regard for the prejudice of the entities involved. He sought what he believed to be the best plan of action for the children of this state as a single focus with the by-product being increased economic opportunity in Mississippi. Today, 86 year old Governor Winter is still very active in seeking education improvement in not only Mississippi but the United States. The lessons' William Winter taught in 1980-1984 could very well serve as a model for change in not only our educational system but a change in social reform at the same time.

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REASSESSING THE CUSTOMER IN HIGHER EDUCATION

Cathy W. Hall

East Carolina University

William Swart

East Carolina University

Steve Duncan

East Carolina University

ABSTRACT

This paper examines various influences on today's institutions of higher learning to shift toward a customer-oriented focus. While there is little doubt that institutions of higher education have moved, and continue to move, into the realm of being major business enterprises, there is also concern as to how this impacts institutions as places of higher learning. The paper explores some of the demands placed on students, faculty and administrators at institutions of higher learning in today's society, and how these demands are contributing to the negotiation of academic standards in higher learning. There are many customers of higher learning, and the paper stresses the importance in balancing the needs of each with the responsibility of being the supplier of educated human resources for the global economy.

INTRODUCTION

Colleges and universities are facing major changes as they navigate the 21st Century. Decisions that are being made now will not only impact colleges and universities, but will also contribute greatly to our future ability to compete in the global marketplace. The purpose of this paper is to encourage individuals in higher education to begin thinking about choices that are being made and to consider the long-term outcomes of those choices. While change is unavoidable, we can choose to make proactive choices and become agents of change rather than being passive products of change. In the following, we examine the student as the interface between institutions of higher learning and business and industry. In particular, we focus on the potential negative impact resulting from institutions of higher learning shifting to a "student-customer" focus and the resulting impact that shift may have on the quality of human performance of the future employees of our economy.

INSTITUTIONS OF HIGHER LEARNING

There has been a trend in recent years for colleges and universities to begin redefining their identity to that of a service organization and to see themselves as a business enterprise. This trend has emerged in public institutions in part due to the fact that they are no longer state-supported but are now state-assisted. Meeting the financial obligations of running an institution of higher learning has become a major concern. At the same time, there has been a dramatic rise in the cost of attending post-secondary schools (Webber et al., 2008). The Delta Project (Wellman et al., 2009) points out while students are paying more of the total costs associated with higher education, less of the tuition generated revenue is actually going into the classroom. More and more institutions are relying on tuition costs to help make up for lower state funding. The bottom line for many institutions has become balancing the budget from year-to-year rather than looking toward strategic priorities. Student tuition paid for approximately 24% of the operating costs at public colleges and universities in the early 1990's. That percentage rose to 37% by 1998 and it was nearly 50% (Kelderman, 2008) in 2005. At the same time institutions are relying more and more on student tuition to help meet operating costs resulting in smaller shares of tuition money actually going toward instructional purposes.

While there is little doubt that today's higher education is a business enterprise, in the past the primary conceptualization of higher education was as a place of learning. These two concepts can and do coexist, but there also needs to be a conscious decision as to which one will be primary. There has been a shift in higher education away from emphasizing learning to emphasizing marketing in order to attract the numbers of students necessary to generate sufficient revenues for operating the institution. Effective marketing tends to offer customers what they want, not necessarily what they need. As this trend began to emerge, there was also a subtle but definitive shift to

give students what they wanted as opposed to what they really needed to be personally and professionally successful in their future.

Innovations in technology have created entire new markets for higher learning. We can deliver “learning” that will fit into almost anyone’s lifestyle. All that is necessary is to convince those customers to enroll. Many do, lured by the glamorous advertising campaigns devoted primarily to serve time and place bound students and to promises of a brilliant future for those that pursue their higher learning via distance education. Most noteworthy among such institutions is the University of Phoenix. What began in 1976 as a night school is now 300,000 students strong and the country’s largest private institution as well as the largest recipient of student financial aid (Clay, 2008).

Dazzled by the University of Phoenix’s success, many public and private institutions have adopted distance education as one of their enrollment-building strategies. For many of them, the investment necessary to be effective in delivering higher education effectively has been much more than anticipated. Paying back such investment requires that the anticipated enrollment increases actually materialize, further reinforcing the need for a marketing-driven approach. However, in doing so, what, might we be trading off? Are we looking toward marketing our institution in ways to attract larger numbers of potential students that may also require a negotiation and possibly weakening of academic standards? As we move into more desperate financial constraints with recent economic events, there is even greater concern that institutions will err on the side of monetary impact. Bok (2004) raised these issues as concerns in regard to the corporatization of higher education and the unprecedented size and scope of higher education’s commercial practices. Again, monetary concerns are often trumping learning priorities.

POST-SECONDARY STUDENTS

We are dealing with a new student at today’s colleges and universities. It is a given that adolescence is a time of ego involvement and a belief that the world, at least in part, “revolves around you” during this time period (Alberts et al., 2007; Elkind, 1967). Today’s students seem to have been given permission to extend adolescence beyond the normal time period. They have grown up in environments where their needs and wants took precedence (Strauss et al., 1991). Many of these young adults have limited experience in facing adversity which, according to at least a few, may not be to their advantage. Gladwell (2008) has noted that facing adversity can be an opportunity to develop skills that will serve individuals well in personal and professional life. However, we have tried valiantly in our recent culture to bring up children in an environment where struggles are minimal and everyone gets a blue ribbon.

The outlook is not all bad though. This is also one of the brightest and most technologically advanced generations. They have grown up with PCs, Google, cell phones, and all the other accretions of new world technology – these are the Millennials. A statement by a young adolescent is particularly insightful in understanding this generation: “We’re the Millennial Generation, we’re special, one of a kind. It’s our turn, our time to shine.” (Howe et al., 2000).

However, if you overlay this ego-oriented viewpoint onto the world map, the perspective changes dramatically. In a unique video on YouTube, *Shift Happens*, (Fisch, 2007) the following is cited: “If you are one in a million in China, there are 1,300 just like you. In India, it is 1,100 like you. Twenty-five percent of the population in China with the highest IQs is greater than the total population of North America. In India, it is the top 28%. Translation: they have more *honor* students than we have students.” The U. S. is failing to keep pace with other countries in producing graduates especially in the areas of science, technology, engineering and mathematics. We will not be able to compete in a global economy unless these gaps are addressed (Kelderman, 2008).

The Millennial students entering U.S. colleges and universities today have very specific expectancies that their needs/wants will be met and that they will be able to “shine”. They do believe they are special, and they have not yet recognized the impact of globalization. There is often an underlying belief that there is something wrong with the system if they are not able to do well. They not only expect, but often demand, modifications and negotiation of standards as their lifestyle dictates. There is an expectancy of being treated as a valued customer and being able to negotiate the learning environment. There is also a disconnection between learning in college and the post-college social and professional roles they expect to play. College can be perceived as somewhat of a necessary evil in obtaining a piece of paper that will land the job of their dreams and whatever they need to know will be taught to them once they enter the workforce (Duncan, et al., 2008).

POST-SECONDARY FACULTY

Faculty members teaching in higher education today are facing unique challenges. They are expected to be experts in their discipline, but they also need to have technological expertise. Delivering learning today comes with an overwhelming number of technological “bells-and-whistles”. Many instructors feel that they need to provide up-to-date technological options in the classroom setting if they are going to keep the attention of their students. It is often seen as their responsibility as “good” instructors to keep the students constantly engaged and entertained. They are often not as savvy as their students in the use of modern technology and play a never ending game of catch-up. The time that might have been spent on discipline-based study is now often reduced in order to try to remain technologically current. Many institutions offer seminars, classes and/or workshops to their faculty in order to assist in this endeavor. A whole new subset of the university has been developed for faculty enhancement. Again, this is not necessarily negative as long as institutions do not substitute technological savvy for discipline savvy.

Another consideration for faculty is the classroom response of students. Universities as a whole take into account student ratings of their professors in decisions of promotion and tenure, merit raises, and other professional considerations for tenure-track professors (Seldin, 1993). Even when tenure is obtained, student ratings can and do have an impact on a faculty’s professional career. While there is wide variation in how influential student ratings are in impacting faculty’s careers, there is no doubt that it does carry tremendous weight in the majority of cases.

While student ratings are used in decisions relevant to both tenured and tenure-track faculty, there is little debate that the tenure-track faculty feel the greatest pressure in obtaining high ratings for their courses. Tenure decisions are based primarily on research, teaching, and service with different emphasis on each depending on the institution. But, all play a role in the ultimate tenure decision. Teaching evaluation often reduces to a matter of student course ratings with a few other things possibly added, depending on the institution (Seldin, 1993). Knowing the importance of these ratings, how much leverage does this give students to negotiate course standards – attendance, extra credit, redoing course assignments, curving grades, etc?

Institutions also employ fixed-term faculty. These individuals often have terminal degrees in their area of expertise but they have a limited contract with the university (often one year with a few having up to three or more years). These contracts are renewed based on the needs of the university, and these individuals hold little or no security beyond the time period stated in their contracts. Student ratings take on added importance for these faculty members given that these student ratings will play a crucial role in their contract renewal. Any student who has been at a university for any period of time knows professors are affected by student ratings. In today’s technological world, web sites exist where students comment openly on professors and identify those who are easy graders or don’t require class attendance. This seems to add credence to the point that today’s students just may be viewing the educational experience as something to get through with the least amount of rigor.

This thought is affirmed by research on student knowledge of academic standards vs. actual engagement (Duncan, et al., 2008) in the academic rigor to achieve those standards. A disconnect appears to exist between what students are *actually* doing and what they know they *should* be doing in order to be academically successful. However, this disconnect does not extend to accepting the associated consequences. In the research results, students knowingly did not engage in behaviors that resulted in good grades but still felt they should be allowed to negotiate a good grade in return for some form of extra credit. In one documented case, a student had missed every exam, yet negotiated with the instructor to be allowed to hand in an extra credit assignment that resulted in an A for the course. Although it would appear that administrators would not condone such behavior by an instructor, the opposite is more likely to be true. When one particular faculty member asked his department chair whether he should focus on assuring that course standards were being met or on obtaining good student evaluations, the response was to focus on the latter. Good student evaluations pave the way to academic success while bad ones lead to failure. Obviously, good student evaluations also please the Department Chairs and Deans.

POST-SECONDARY GRADUATES

In a study by Duncan et al. (2008), it was found that in all cases there were significant differences in students’ ratings of the importance of academic engagement behaviors in obtaining academic success and their self-reported actual engagement in these same behaviors regardless of discipline. It was apparent that students were fully cognizant of the behaviors that have been shown to lead to academic success, but they often chose not to engage in these behaviors. They fully recognized the discrepancy in their behaviors, but they also did not choose to engage in self-correction. Instead, there was the expectancy that the standards of performance would, and should, be negotiated in their favor. If our graduating seniors leave their respective colleges and universities with the feeling that quality standards are always negotiable, it can be assumed that this attitude will soon show up in sectors of the

work place. When this happens, we can expect to continue to read troubling cases where people took the easy route versus spending the time and trouble to do a job to standards. We only have to look at recent headlines to see the impact of this attitude (i.e., medical errors, aviation accidents, salmonella and ecoli contamination in the food industry).

If students leave our colleges and universities with low self-regulatory behaviors, they will likely continue these behaviors when they enter the workforce. The negotiation of standards moves from the university to the students' careers where an expectancy of entitlement continues. The consequences of these behaviors are adversely impacting our competitiveness in the global economy.

BUSINESS AND INDUSTRY AND HIGHER EDUCATION

Business and industry are customers of institutions of higher learning because they rely on them to provide a pipeline of well prepared professional and technical graduates who become their future employees. The trends that have been discussed question higher education's continued capability (or willingness) to provide the same level of "well prepared" graduates. The Society for Resource Management (Casner-Lotto et al., 2006) conducted interviews with various human resource personnel and senior executives in business. The results of this report were astounding. The primary finding was that the United States is "not doing enough, fast enough, to prepare for a vibrant economic future for our children and our nation." Students ready to enter the workforce were far too likely to be inadequately prepared in key areas and were described as being "woefully ill-prepared". The sentiment of lack of adequate preparation was also echoed by Morton (2007) in discussing what next steps were necessary to continue to be competitive in the global economy. Morton's noted key steps included the need to encourage higher level skills from graduates and a strong link between academia and industry.

A recent overt move on the part of Boeing was announced in the fall of 2008 (Basken, 2008). Tired of hiring individuals who did not perform to standard, the company announced that it would compile data from past hires to determine which universities were producing a better "product" and focus their recruitment on these institutions. They noted that the results of their data analysis would not be made public, but individual results would be shared with each institution. It is doubtful, however, that those institutions who are ranked high will keep the information confidential. It is far more likely that these institutions will use the information as a recruitment tool. These industries and businesses will not be "buying" their product if institutions of higher learning are not producing students capable and willing to assume job responsibilities in industry and business, then. Boeing may be the first to make such a strong statement, but it will certainly not be the last. If recruiters from industry and business choose not to consider recruiting from certain institutions, the impact is far reaching. We have already seen outsourcing of jobs on a massive scale to individuals in other countries who present with well developed skill sets and a stronger work ethic.

SUMMARY

Identifying and serving the "customer" of higher education is a complex and multifaceted challenge. There is no single customer, but various customers. All customers contribute to maintaining our nation's ability to stay competitive in the global market. There are also no easy solutions to the emerging problem of negotiation of quality performance standards. What we do know is that higher education is changing and will never return to the way it was. However, institutions of higher education, faculty, students and businesses can be contributing architects in insuring education maintains high standards of human performance. They are all consumers and they all have a vested interest in maintaining quality standards. In order to do this, we have to acknowledge that change is happening and dialogue has to be opened among all participants. Industry must be open to dialogue with colleges and universities relative to the content and rigor of curriculum while higher education must welcome this discussion. Universities must independently begin to review and, if necessary, adjust teaching, testing, and grading so that the educational experience reflects attainment of the skills, knowledge and abilities required by the consuming workforce. Academic leadership (Department Chairs, Deans, and Provosts) must carefully consider the guidance they provide to faculty committees considering the level of importance given to student evaluations in terms of the impact on tenure and promotion. While student input is important, the proclivity of professors to negotiate curriculum and standards in order to provide students with assignment alternatives that will lead to higher grades must be examined, especially if this negotiation is linked to businesses feeling college graduates are leaving higher education without the skills needed by industry.

What we are just beginning to see is the very real consequences that will ultimately result from the negotiation of academic standards. Higher education, business/industry and the economic success of the U.S. are intricately connected and are interdependent. As noted in the Delta Project (Wellman et al., 2009), the United States is quickly

losing ground in the global race for talent. What we have tried to emphasize in this paper is that the customers of education are many and *all* deserve the best we can offer. One of the primary ways of insuring the best is to maintain standards and require quality human performance.

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ECONOMIC IMPACTS AND RETURNS TO EDUCATION: THE UNIVERSITY OF ALABAMA 2004-2005

Samuel N. Addy

The University of Alabama

Ahmad Ijaz

The University of Alabama

ABSTRACT

In an era of declining state support, it is increasingly important for public universities to determine and communicate their economic impacts on host states and sub-state regions as well as the return on appropriations received and the education they provide. This will help in garnering public support for future appropriations and recruiting students. The 2004-2005 economic impacts of The University of Alabama show that the university presents attractive public and private investment opportunities. Public returns are 7.5 percent or better and real private returns for the 2004-2005 graduation class range from 10.7 percent to 24.7 percent depending on the degree.

INTRODUCTION

The share of total revenue for public colleges and universities that state and local government appropriations constitute declined from nearly half in 1980-81 to about a third by 1999-2000 (IHEP, 2005). This share continues to fall for many of these institutions despite the demonstrated benefits that higher education has on home states and the nation (IHEP, 1998; College Board, 2004; and IHEP, 2005). Figure 1 shows the IHEP (1998) matrix of the benefits of higher education. Examples of studies that make the case for these benefits include Rauch (1993), Goetz and Rupasingha (2004), Henry et al. (2004), Lochner and Moretti (2004), Moretti (2004), Rizzo (2004), and Lange and Topel (2006). However, the matrix is not exhaustive because through their teaching, research, and service activities, public colleges and universities are often involved in economic development and social programs at the community, region, and state levels. Many public universities promote innovation and help to attract, retain, and grow business and industry.

	Public	Private
Economic	Increased Tax Revenues	Higher Salaries and Benefits
	Greater Productivity	Employment
	Increased Consumption	Higher Savings Levels
	Increased Workforce Flexibility	Improved Working Conditions
	Decreased Reliance on Government Financial Support	Personal/Professional Mobility
Social	Reduced Crime Rates	Improved Health/Life Expectancy
	Increased Charitable Giving/Community Service	Improved Quality of Life for Offspring
	Increased Quality of Civic Life	Better Consumer Decision Making
	Social Cohesion/Appreciation of Diversity	Increased Personal Status
	Improved Ability to Adapt to and Use Technology	More Hobbies, Leisure Activities

Figure 1. *The Array of Higher Education Benefits* Source: IHEP (1998).

During economic downturns, the burden of any funding cuts or proration tends to fall more heavily on public universities. For example, universities in Alabama were asked to bear an 11 percent cut in state appropriations versus a 2.5 percent cut for K-12 for the 2008-2009 academic year as the state faced a shortfall in education funding. For The University of Alabama (UA), this took state appropriations to below the 24 percent share of total revenues for the 2004-05 academic year after the share improved in the three years that followed.

It has therefore become more important for public universities to communicate their economic impacts and also the return on public funds received so as to slow the declining share of appropriations in revenues. It is crucial

that both private and public returns on college education are communicated to citizens for two main reasons. The first is to garner public support for future higher education appropriations, especially as long as such investments are demonstrated to be prudent. Second, the private return on attending a public university can be a very useful tool in recruiting students, raising educational attainment, and contributing to economic development in its home state.

This paper presents expenditure, employment, and fiscal impacts of UA on the State of Alabama and the Tuscaloosa metro area for the 2004-05 academic year. Public and private investment analyses of a UA education are also presented because state appropriations and tuition and other attendance costs can be considered as investments by the state and the students, respectively. The results show that these investments are worthwhile and that UA has significant impacts on the economies of both the state and the metro area.

METHODOLOGY

A spreadsheet model based on multipliers from the Regional Input-Output Modeling System (RIMS II), which is developed by the U.S. Department of Commerce's Bureau of Economic Analysis, is used to estimate the impacts. By using RIMS II, the traditional approach advocated by Brown and Heaney (1997) that can be found in Caffrey and Isaacs (1971) or Miller and Blair (1985) is followed rather than the skill-base approach that some studies on university impacts have used. Also, in the lexicon of Watson et al. (2007), the impacts are contributions to the state and area economies, not net benefits or new expenditure impacts of UA to those economies. The concerns highlighted by Siegfried et al. (2007) regarding the reliability and accuracy of impact estimates of colleges and universities are also taken into consideration. For example, it is recognized that UA is a tax exempt institution and also different RIMS II multipliers for the two areas are used; the state multipliers are greater than the metro area multipliers. Future incremental income streams of graduates are not considered as UA impacts for 2004-2005, but are inputs to determining the private and public returns on a UA education with focus on the class of 2005. Additionally, there is no attempt made to quantify and include indirect human capital spillovers such as productivity enhancement, higher earnings to state and local residents who did not attend college, reduced crime (and lower public safety and prisons costs), improved public health (and lower medical costs), and greater civic involvement.

Output and employment impacts are estimated first. Earnings impacts are then determined only from UA payroll and student spending, not the university's non-payroll expenses. Visitor impacts are estimated from earlier UA impact studies with adjustments for increased student enrollment, a larger football stadium, and inflation. Visitors include athletic event spectators, prospective students, visiting parents and relatives, visiting academic personnel, business representatives, and others. Visitors are drawn to activities such as family weekend, honors day, commencement ceremonies, homecoming, band competitions, alumni weekends and reunions, etc. Academic and business visitors attend conferences, seminars, lectures, and other educational programs. Other business visitors include media representatives, educational officials, vendors, research sponsors, and candidates for faculty and staff positions.

Fiscal impacts are derived from the earnings and visitor impacts allowing for the fact that not all of these impacts are taxable. Expenditures on sales taxable items constitute 42.4 percent of total household earnings based on the U.S. Bureau of Labor Statistics' consumer expenditure survey, but 68 percent of non-UA related student spending is sales taxable. State taxable income is 65.8 percent of earnings with an effective state income tax rate of 5.0 percent. In 2005, the first \$500 and the next \$2,500 were taxed at 2 percent and 4 percent, respectively, for single persons, head of family, and married persons filing separately. For married persons filing joint returns the first \$1,000 and the next \$5,000 are taxed at 2 percent and 4 percent, respectively. Excess net income is taxed at the 5 percent rate. Sales tax rates used are 4.0 percent for the state and 5.0 percent for local (combined county and city) jurisdictions statewide. Local sales tax rates vary from 3.0 percent to 7.0 percent among Alabama counties, but are most frequently at 5.0 percent. Sales taxes are not derived on non-payroll expenditures because of the university's tax exempt status. The fiscal impacts presented cover just income and sales taxes. Other taxes and fees (e.g., property, utilities, rental/leasing, alcoholic beverages, cigarette and tobacco, insurance premium, lodgings, driver's license fees, auto title and license fees, and other personal property taxes) are not included.

While many public benefits of education are hard to measure (e.g., productivity enhancement, innovation promotion, and general improvements in the quality of life), others such as incremental tax receipts can be measured and used to determine the return on public funds supporting public universities as well as the private return on education for the degree pursued. Income and sales taxes on the incremental future income stream of the class of 2005 over their working lives are set against net appropriations to determine the public return on state appropriations to UA assuming (i) that 30 percent of the class will reside permanently out of state and (ii) fixed sales and income tax rates. The working life is taken to end at age 67 and net appropriations allows for the sales and income taxes generated in 2004-2005. Various public and private annual rates of return are determined with respect to degree

attained on a marginal basis and relative to high school graduation, whether certain temporary local sales taxes are made permanent, and whether state only or both state and local tax receipts are considered over the working life of the UA graduation class of 2005.

For the private return on the UA education, the investment is taken to be the obvious expenditures for the education (tuition, room and board, books, etc.) and half of the forgone earnings while in school. Forgone earnings is the earnings potential of the educational level immediately below the graduate's highest degree. For example, the salary of a bachelor's degree holder is the forgone earnings for a person pursuing a master's degree. The investment, or cost of the UA degree, includes half the foregone earnings because most UA students work an average of 20 hours a week while in school. The investment (the actual marginal cost of pursuing a certain degree) is compared to the future stream of incremental income (marginal benefit) for the graduate to determine whether the decision to obtain a UA degree is prudent. A category of people with "some college" is included in the study to capture individuals who began college but did not complete the bachelor's degree requirements since these people earn more income than high school graduates with no college experience.

RESULTS AND DISCUSSIONS

The economic impacts of UA on Alabama and the Tuscaloosa metro area are shown in Table 1. Total UA expenditure for 2004-2005 is \$636.8 million; direct UA payroll and purchases of \$435.3 million and student spending of about \$201.6 million. The university spent \$215.8 million on payroll for 4,952 full time equivalent (FTE) workers comprising 4,093 FTE faculty and staff and 859 FTE students. UA students spent approximately \$201.6 million on off-campus housing, food, books, clothing, etc. Visitors to the university make additional expenditures to the above-mentioned \$636.8 million. Football alone had a visitor expenditure impact of about \$12.7 million per game in the Tuscaloosa metro area and \$19.2 million per game statewide. University revenues were \$529.7 million for the academic year. State appropriation of \$126.9 million represents 29 percent of UA's \$435.3 million payroll and purchases or 24 percent of revenues, but just 19.9 percent of the total UA expenditure for the year.

The University of Alabama 2004-2005 Economic Impacts

Not all of the total \$636.8 million UA expenditure was made within the state; a portion went to vendors outside Alabama. About 80 percent of payroll, 90 percent of purchases, and all student expenditures are assumed to be spent in Alabama. The total 2004-2005 UA expenditure in Alabama is thus \$571.7 million, which had an indirect output impact of \$707.5 million. Additional visitor impacts of \$175.5 made for total UA economic impacts on the state of \$1,454.7 million and 8,088 jobs (Table 1). The additional visitor expenditure impact comprises \$141.4 million from athletics and \$34.1 million from other visitor expenditures. Football alone had a visitor output impact of \$134.2 million from seven home games at about \$19.2 million per game. Basketball, baseball, gymnastics, swimming, etc. are conservatively estimated to have a \$7.2 million impact. Fiscal impacts are \$20.2 million state income tax, \$16.9 million state sales tax, and \$21.1 million local (city and county) sales tax for a total of \$58.2 million.

Of the total \$636.8 million UA expenditure, we estimate that 70 percent of payroll, 60 percent of purchases, and all student expenditures were spent in the Tuscaloosa metro area. Thus, adjusting for leakages out of the area, UA expenditures in the metro area totaled \$484.3 million, which had an indirect impact of \$367 million. The metro area visitor expenditure impact of \$116.4 million consisted of \$93.8 million from athletics and \$22.6 million from other visitor expenditures (Table 1). Football provided a visitor expenditure impact of \$89.1 million from the seven home games played in Tuscaloosa. The average impact per game was slightly more than \$12.7 million. Basketball, baseball, gymnastics, swimming, and other sports are estimated to have had a \$4.8 million impact. UA economic and fiscal impacts on the metro area were \$967.7 million, 6,941 jobs, and \$16.6 million in local sales tax collections.

Table 1. *The University of Alabama 2004-2005 Economic Impacts*

(Millions of dollars)	Alabama			
	Total Spending	Spent in Alabama	Indirect Impact	Total Impact
University of Alabama				
Payrolls	\$215.8	\$172.6	\$213.7	\$386.3
Purchases	<u>\$219.5</u>	<u>\$197.5</u>	<u>\$244.4</u>	<u>\$442.0</u>
	\$435.3	\$370.2	\$458.1	\$828.3
Student Expenditures	\$201.6	\$201.6	\$249.4	\$451.0
Visitor Impact				\$175.5
Total	\$636.8	\$571.7	\$707.5	\$1,454.7
Employment Impact (Jobs)				8,088
Statewide Fiscal Impact				\$58.2
State Sales Tax				\$16.9
State Income Tax				\$20.2
Local (City and County) Sales Tax				\$21.1
	Tuscaloosa Metro Area			
	Total Spending	Spent in Metro Area	Indirect Impact	Total Impact
University of Alabama				
Payrolls	\$215.8	\$151.1	\$114.5	\$265.5
Purchases	<u>\$219.5</u>	<u>\$131.7</u>	<u>\$99.8</u>	<u>\$231.5</u>
	\$435.3	\$282.7	\$214.3	\$497.0
Student Expenditures	\$201.6	\$201.6	\$152.7	\$354.3
Visitor Impact				\$116.4
Total	\$636.8	\$484.3	\$367.0	\$967.7
Employment Impact (Jobs)				6,941
Local (City and County) Sales Tax				\$16.6

Note: Rounding effects may be present.

The University of Alabama Education as Public Investment

As mentioned previously, state appropriations of \$126.9 million can be considered as an investment by the state. The appropriations are gross since UA has fiscal impacts on the state in the same year that the appropriations are received. The public investment should therefore be net appropriations (i.e., appropriations less fiscal impact). What is the appropriate public investment and what incremental tax flows should be used to determine the public return on that investment? Since appropriations come from the Education Trust Fund—which is funded using state tax receipts—should net appropriations allow for fiscal impact to just state coffers (\$37.1 million) or for the combined \$58.2 million state and local fiscal impact? Similarly, should state only or both state and local incremental taxes be used in the rate of return analysis? The issue is about treating local taxing jurisdictions as free riders (wholly or partially) or not. Table 2 presents public returns for three scenarios and two local sales tax rates.

Net appropriation is \$89.8 million if state only fiscal impact is considered and \$68.8 million when both local and state fiscal impacts are considered. The class of 2005 will pay incremental state income and sales taxes of \$493.4 million over their work life and local sales taxes of \$167.9 million (at 4 percent) to \$209.9 million (at 5 percent). This results in annual rates of return of (i) 7.5 percent to state coffers, (ii) 9.4-9.9 percent statewide if local incremental taxes are included in the analysis, and (iii) 11.4-12.0 percent statewide if both state and local fiscal impacts and incremental taxes are included. These returns are much higher than the then prevailing and current 10-year U.S. Treasury Bond rate and government bonds and show that the public investment in UA is worthwhile. The returns are also conservative since other incremental taxes (e.g., property and utility taxes) are not covered and some

local areas have added new temporary sales taxes. This rate of return analysis on Alabama's appropriations to UA also shows that converting colleges and universities' impacts into annual rates of return (see for example Siegfried et al. 2007) is a misinterpretation. Economic impacts as presented in the previous section should not be interpreted to imply annual rates of return.

Table 2. *Public Returns on the 2004-2005 Appropriations to UA*

	Investment (Million \$)	Annual Rate of Return	
		4% <u>local tax</u>	5% <u>local tax</u>
Appropriations	126.9		
Appropriations less state only fiscal impacts	89.8		
Appropriations less state and local fiscal impacts	68.8		
State only investment and tax receipts	89.8	7.5%	7.5%
State only investment and state and local tax receipts	89.8	9.4%	9.9%
State and local investment and tax receipts	68.8	11.4%	12.0%

Note: Rounding effects may be present.

The University of Alabama Education as Private Investment

A UA education is also an investment by students. Every year thousands of new students enroll in UA degree programs. The benefits for these students are manifold. Education is its own reward and learning and growing intellectually increases graduates' earning potential. However, the college degree comes at a cost that includes the obvious expenditures for the education (tuition, room and board, books, etc.), as well as forgone earnings while in school. Figure 2 and Table 3 show the results of the investment analysis with the assumption that graduates will retire at age 67, together with relevant salary and earnings in both current and real (year 2005) dollars. Rates of return are presented by degree attained on a marginal basis and relative to high school graduation. In the marginal analysis, the average doctoral degree salary is compared to that of the master's degree; a master's is compared to a bachelor's; a bachelor's to a high school graduate with some college experience; and some college to high school graduates. Expected lifetime earnings increase from about \$2.2 million for a high school graduate to \$6.2 million for a doctoral degree holder; the corresponding real lifetime earnings range is \$1.0 million to \$3.2 million.

The real annual rate of return on private investment in a UA education is determined by generating the annual cost and income streams over the education and work lifetimes in 2005 dollars. People who attend some college will have real lifetime earnings of about \$1.2 million, almost \$259,000 more than a high school graduate. This yields a 10.7 percent real annual rate of return on their UA investment. Bachelor and master's degree holders will earn marginal value added of about \$571,000 (a real annual return of 14.9 percent) and nearly \$728,000 (a real annual return of 24.7 percent), respectively. A doctorate will earn approximately \$711,000 more than a master's, a 15.8 percent real annual rate of return.

These real rates of return indicate that the decision to pursue a UA degree is very sensible for the class of 2005 whether or not one completed the degree, although higher returns are obtained by completing the degree. The master's degree has the highest marginal return on investment, but the doctoral degree earns the most, even over the shorter working life. The doctoral degree, however, has the next to smallest annual rate of return. These real investment returns are better than the long term return on investment in U.S. equity markets. One may also consider the rate of return on attending college relative to stopping with high school graduation. The master's degree again provides the highest real return at 13.3 percent, followed by the doctorate at 11.8 percent, the bachelor's with 11.7 percent, and some college with 10.7 percent.

Table 3. *Private Returns on The University of Alabama Education (Class of 2005)*

	Degree/Diploma				
	High School	Some College	Bachelor's	Master's	Doctorate
Number in Class		2,398	2,931	1,390	337
Average Starting Salary (\$)	17,894	21,449	31,532	47,069	66,160
Nominal Annual Salary Growth Rate	3.42	3.84	4.17	4.16	4.16
Real Annual Salary Growth Rate	0.42	0.84	1.17	1.16	1.16
Total Cost of Degree (2005 \$)		40,542	110,242	168,837	280,037
Lifetime Earnings (2005 \$)	971,274	1,229,836	1,801,098	2,528,739	3,239,504
Incremental Income (2005 \$)		258,562	571,262	727,641	710,765
Real Annual Return on Investment		10.7%	14.9%	24.7%	15.8%
Real Return Relative to High School		10.7%	11.7%	13.3%	11.8%
Lifetime Earnings (Current \$)	2,195,073	2,723,983	3,807,220	5,135,905	6,205,021
Incremental Income (Current \$)		528,910	1,083,238	1,328,685	1,069,116

Note: Total cost of degree is the direct cost of the education (tuition, room and board, books, etc.) and half of the forgone earnings while in school. Rounding effects may be present.

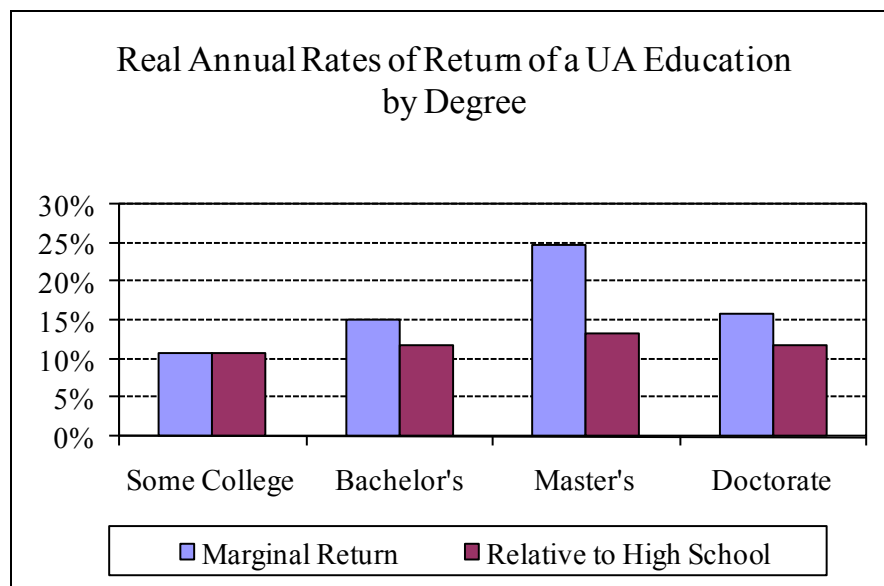


Figure 2. Private Returns of the UA Education for the Class of 2005

CONCLUSIONS

The 2004-2005 University of Alabama economic impacts on the State of Alabama are \$1.455 billion expenditure impact—11.5 times the \$126.9 million state appropriation received that year—and 8,088 jobs. UA represents an excellent investment opportunity for the state, providing a 7.5 percent annual rate of return on net appropriations to state coffers and up to 12.0 percent for both state and local taxing jurisdictions over the work life of the graduating class of 2005. Fiscal impacts are \$20.2 million state income tax, \$16.9 million state sales tax, and \$21.1 million local (city and county) sales tax for a total of \$58.2 million. The UA economic and fiscal impacts on the Tuscaloosa metro area are \$967.7 million, 6,941 jobs, and \$16.6 million in local sales tax collections. Expected real marginal annual rates of return of the UA education for the graduating class range from 10.7 percent to 24.7 percent depending on the degree. Compared to high school graduation, real annual rates of return range from 10.7 percent to 13.3 percent. The doctorate provides the highest lifetime earnings.

It is important to note that any study of this kind has many uncertainties. The real rates of earnings growth may change. So can income and sales tax rates, rate of alumni residence in the state, etc. However, under the assumptions in this paper, a UA education is a very sound investment for students and the state. There are also several intangible benefits of a UA education that cannot be measured. The university produces skilled and knowledgeable people; provides valuable research, adding to the stock of knowledge; enhances graduates' ability to learn and grow intellectually and to contribute in various ways to society; and provides valuable service to communities and the state. The intangible, yet very real and critical, role of higher education in the modern high-tech economy is valued. The 2004-2005 economic impacts of The University of Alabama on the state and the Tuscaloosa metro area certainly exceed the measurable component.

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A BIOECOLOGICAL MODEL OF COLLEGE STUDENT RETENTION

Kristi Cordell-McNulty
University of Florida

Patricia Ashton
University of Florida

ABSTRACT

College retention is national concern in the United States. A new bioecological model of college retention is proposed using Bronfenbrenner's (1979; Bronfenbrenner & Morris, 1998) bioecological theory as a theoretical foundation. This model examines the spheres of influence that college students encounter on a regular basis, as well as the personal characteristics of the student (*self-system*). In addition some of the self-system variables, including motivation and identity, are proposed to mediate the relationships between the other systems and the outcome variables of academic achievement, social adjustment, and intentions to persist.

INTRODUCTION

The graduation rate of college students in the United States remains a serious national concern. A comparison of students who entered a 4-year college in 1989 with those entering in 1995 showed that the rate of completion of the bachelor's degree within 5 years remained steady at about 53% (National Center for Education Statistics, 2005). More recently, only 56.4% of the students entering college in Fall 2000 had graduated by Summer 2006 (National Center for Higher Education Management Systems, 2007). These data show that there has been little improvement in the bachelor's degree graduation rate over the last two decades. Failure of so many students to complete a college degree in a timely fashion represents a significant economic loss to the nation and a serious personal loss to students. The purpose of this study is to test a model of college success and retention based on a bioecological perspective. This new bioecological systems model of college retention focuses on the different ecological systems that predict college success and the psychological processes that mediate the relationship between the different systems and college success.

Many studies have been conducted on college retention from a variety of perspectives, each one focusing on relatively few variables. Several researchers have proposed models to explain the relationships among these models. Tinto's (1975, 1993) model has been used widely for this purpose. Tinto's model postulates that college student departure needs to be examined as a longitudinal process of interactions between the student and the academic and social realms of college. More recently, noticing the lack of psychological processes in Tinto's model, Bean and Eaton (2000) developed another model of college retention that focuses on psychological processes and how these processes impact retention. In an effort to provide further clarification of the variables related to college success and retention, the purpose of this study is to use Bronfenbrenner's (1979, Bronfenbrenner & Morris, 1998) bioecological systems model as a basis for a structural model that incorporates the models of Tinto and Bean and Eaton. This new bioecological systems model of college retention will focus on the different systems that impact college students from a contextual perspective and the psychological processes that mediate the relationship between the different systems and college success.

BRONFENBRENNER'S BIOECOLOGICAL MODEL

Typically, only a few variables such as personality, previous academic achievement, and socioeconomic status, are included in studies of college retention and success, and consequently, it is unclear whether findings are spurious because one or more critical variables have been left out of the model. In this study we will examine a more comprehensive set of variables that may be predictive of college retention or success using Bronfenbrenner's bioecological model as a framework for identifying the most relevant variables to include in the study.

Bronfenbrenner and Morris's (1998) bioecological model focuses on the four components of person, process, context, and time (PPCT) and the relationships among them. The person component includes the unique characteristics of the individual. The context component includes the environment in which development is occurring. The process component comprises the interaction that is occurring between person and context components, and the time component includes the period of time encompassed in the study. In this study we will

examine variables for each component of Bronfenbrenner's model. The person variables we will examine are academic ability, personality, previous academic achievement, and extracurricular activities. For context variables, we will examine gender, ethnicity, and socioeconomic status. For process variables we will examine parental involvement, identity, perceived academic self-efficacy, theory of intelligence, achievement goal orientation, parental autonomy support, relatedness to parents, off-campus friends, on-campus friends, and instructors, and sense of belonging on campus, and for time variables we will examine age.

Bronfenbrenner (1979; Bronfenbrenner & Morris, 1998) also described spheres of environmental influences in his theory, the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. In this study we will be examining the microsystem, macrosystem, and chronosystems. The microsystem includes activities, roles, and relationships that tend to occur on an everyday, face-to-face basis. The macrosystem includes overall patterns of the society and culture. The chronosystem represents the effect of time on the other systems. In their later work, Bronfenbrenner and Morris (1998) also emphasized examining people's characteristics and how they influence the environment, which they referred to as the *self-system*. In this study we will examine the family microsystem, through the process variables of parental involvement, parental autonomy support, and parental relatedness; the peer microsystem through the process variable of off-campus friend relatedness; the college microsystem will be represented through the process variables of instructor relatedness, on-campus friend relatedness, and sense of belonging on campus and the person variable of extracurricular activities; the self-system will be assessed through the person variables of personality and previous academic achievement, and the process variables of identity, perceived academic self-efficacy, achievement goal orientation, and theory of intelligence; the macrosystem will be assessed through the context variables of gender, ethnicity, and socioeconomic status, and the chronosystem, will be assessed through the time variable of age.

One other study has examined retention through Bronfenbrenner's ecological perspective. Alford (2000) conducted a qualitative study examining college social adjustment for Black students from low socioeconomic (SES) backgrounds which focused on the community and college microsystems. Participants were 15 Black commuter students from two colleges in the North Atlantic region. Participants were interviewed individually and in groups about their friendships at the college and in the community and how these friendships influenced their college progress. The interviews lead the researcher to the conclusion that many of the students had very limited community microsystems. Because these students came from low SES backgrounds, very few of their community members attended college, and some community members looked down on the students for attending college. Students tended to limit contact with members in their community that did not support their college goals. The interviews also showed that students only became involved in their college microsystems on an as-needed basis. Because these students commuted, it was more difficult for them to become involved in the college community. Also, many of the students were helping to support their families financially, so they were unable to become involved in college activities. Alford concluded that these students were often experiencing social isolation because they were not receiving proper social support in their communities or at school, and that colleges need to make sure that they are encouraging Black commuter students to become involved in their college and help them to develop supportive relationships. The main weakness of Alford's study is that no outcome variables, such as academic achievement or retention, were assessed. We will examine GPA, intentions to persist, and social adjustment as outcome variables. Alford's sample was also very small and included only one group. We will use a larger sample and look at different ethnic and SES groups to see what differences exist between them in an effort to obtain more generalizable results.

Proposed Model

Our bioecological model of college retention (see Figure 1) includes the microsystems of family, peer, college, and the self-system. These microsystems comprise the components of the academic and social realms that Tinto (1975, 1993) emphasized in his model. Following the microsystems in our model are the psychological processes. These processes include identity, perceived academic self-efficacy, and achievement goal orientations. These variables have been chosen because they were hypothesized as psychological processes in either Bean and Eaton's (2000) model or Rodgers and Summers (2008) revised model and because the literature supports the relationship between these variables and college success. Next in the model are the two outcomes of the process variables: academic achievement and social adjustment followed by intentions to persist.

This model addresses weaknesses in the current literature by combining both the sociological and psychological perspectives that are commonly used in the college retention literature. In addition this model uses Bronfenbrenner's (1979; Bronfenbrenner & Morris, 1998) bioecological theory as a framework for examining

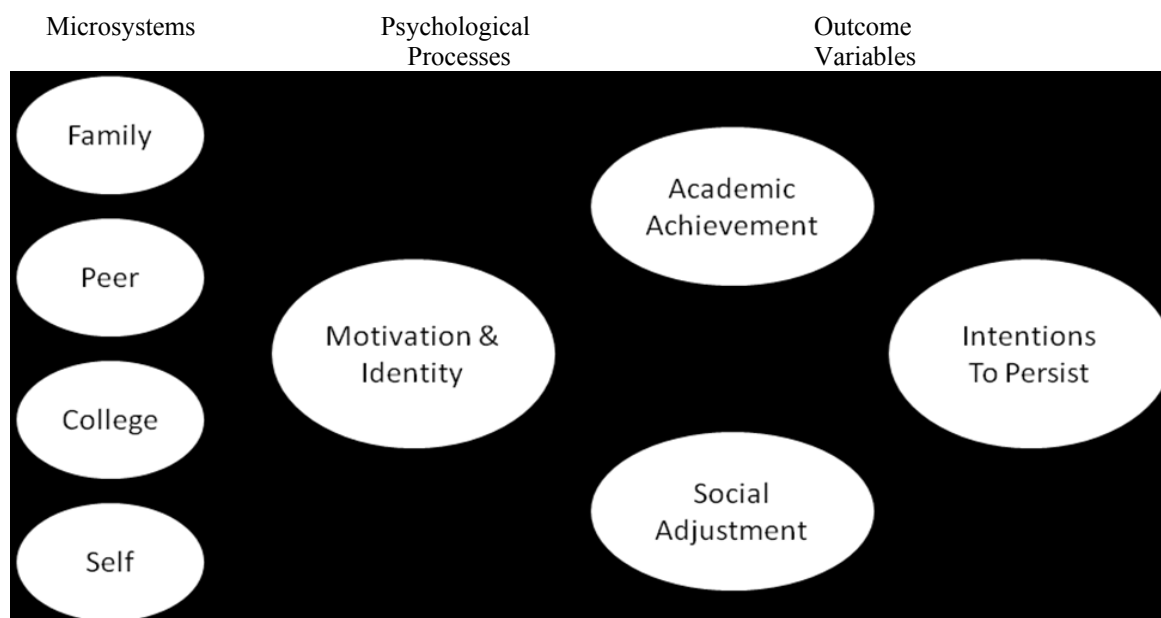
college retention. Unlike many previous studies, our study will test the entire conceptual model, instead of individual sections.

PROPOSED METHODOLOGY

Participants will be 300 college students from a large southeastern university. Students will be recruited from psychology and educational psychology classes and will receive course credit for their participation. Participants will be asked to complete the surveys online.

We plan to use structural equation modeling to estimate the relationships in our model. The model contains 8 endogenous variables, perceived academic self-efficacy, mastery goals, performance-avoid goals, commitment making, identification with commitment, academic achievement, social adjustment, and intentions to persist. The model contains 10 exogenous variables, parental involvement, parental relatedness, parental autonomy support, off-campus friend relatedness, instructor relatedness, on-campus friend relatedness, sense of belonging, extracurricular activities, conscientiousness, and entity beliefs.

Figure 1: Proposed Bioecological Model of College Student Retention



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HARMONIZING EDUCATIONAL DIFFERENCES FROM AN INTERNATIONAL PERSPECTIVE**Michael Eskay***University of the Cumberland***Frank D. Adams***Wayne State College***ABSTRACT**

Lack of educational relationship between one country and another is a growing problem all over the world; and this problem has caused more harms than good. In order to work harmoniously with one another, countries should shift their old paradigm to a new and better way of thinking by adopting cooperative, collaborative, and consultative approaches. These approaches will help in mending sour educational relationships from isolationism to cooperation among countries.

INTRODUCTION

One needs only to visit any nation in any geographical region of the globe to realize real differences exist in educational offerings, places of instruction and learning, as well as the funding and administration of these efforts. The differences are colored by the individuals examining the condition of existing education within the borders of that nation. Citizens across the United States will state without reservation that the United States has a superior educational system to any nation in any portion of the globe. The same may be said of France, Great Britain, or Germany; these nations perceive their system of educating their young citizens to be superior to others across that same globe.

With differences in perception, as well as, the reality of existing conditions for educating a nation's youth, it is difficult to propose discussions with these educational differences being present. Identifying common points of interest in providing a "quality" education for a nation's citizens could be a beginning; it could be a common point for inquiry among these nations. From this identified point, a harmonizing action could begin to emerge. Far too often, nations stress and exercise the differences held rather than reflect upon any common points of interest.

The future is not entirely bleak for developing and supporting discussions among nations on educational issues that are common to all. It is encouraging to note that there is a genuine interest from many educational institutions across the globe about an international perspective for education; it is this common interest in education that is providing opportunities for nations to begin to examine how to function in a global society. Colleges and universities are beginning to explore the potential for servicing the needs of international students using non-traditional methods for delivery. With the explosion of technology, even in the developing countries, nations are finding it more in their own national interests to be aware of global events. In addition to becoming aware of the technology, many nations are beginning to explore the potential for investing in technology to deliver educational services.

HARMONIZING THE EDUCATIONAL DIFFERENCES FROM AN INTERNATIONAL PERSPECTIVE

In most countries of the world, different approaches to education are employed compared to the ones seen and applied in the United States. These varied approaches, which are devoid of cultural, socio economic status, religious and racial affiliations, have contributed to the success of that society (Intarakumnerd & Virasa, 2000). There are many factors accounting for such educational success in these societies. Such factors may include various levels of cooperation with neighboring countries. There is evidence of cooperation among neighboring countries in educational matters; the cooperation has been seen helpful in supporting their educational partnerships (Clemens, 2004). Administrators, for example, have biannual or annual meetings in which educational issues such as (1) social-economic status (SES); religion, teacher education and many others are brought, discussed and implemented; (2) exchange of international students; (3) exchange of cultural ideas; and (4) exchange of technological know-how. Progress has been made in some of these countries, while in other country, such as the United States, educational, enigmatic progress is seen.

One of the reasons for this enigmatic behavior is the different approaches various nations have used to establish quality education; this quality education is seen and interpreted from different cultural perspectives of that nation. For example, in the United States, education is not seen to bring harmony, instead aggrandizement and

domination; whereas, in other countries, education is seen to bear cardinal points of national building, which enhances social and democratic recognition. This educational approach does not help in harmonizing educational differences when looked on from an international perspective (Robertson, Bonal, & Dale, 2002). Therefore, in order to harmonize educational differences, the authors of this work propose examining the following factors: cooperation, collaboration, and consultation.

Cooperation with other international body.

Cooperating with and sharing cultural ideas and ways of educating culturally and linguistically diverse students internationally is very important in harmonizing educational differences, especially in an emerging heterogeneous society. The era of isolationism is over, especially after the demise of communism. The world needs to embrace educational cooperation with each other in order to build and enhance world democracy that will be built on mutual trust, instead of suspicion. According to Riley (2000), the countries of the world are not responding to the cooperative nature of sharing ideas relating to educational differences and how such differences can be easily eradicated. In her research on how cooperative nature of ideas relating to education could be shared, she suggested the following approaches: (1) professional training of foreign students and educational leaders. Special efforts in professional training of foreign students and educational leaders in education and democracy, comparative education, education and nationalism, and missionary education should be considered. Further, topics such as the village being the center for education and social work, the organization and administration of primary and high schools in villages, curriculum development, teacher-training, and adult education should be emphasized as well in this professional training. (2) cultural tolerance and acceptance. In embarking on the professional training of foreign students and educational leaders, host countries must inculcate tolerance and acceptances knowing that countries have their different cultural norms and values that are different from others. Therefore, in order to build a healthy international educational cooperation that is devoid of racism, hegemony and thereby fermenting racial antagonism, educational players from different countries must, according to Bu (1997), embrace cultural tolerance and acceptance.

Collaboration with other countries.

Collaboration is another important tool for harmonizing educational differences. Collaboration refers abstractly to all processes wherein people work together, applying both to the work of individuals as well as larger collectives and societies toward a common end, is according to Davis & Guppy (1997) "a helpful tool for educational reforms." Collaborating in global and educational reform perspective should focus on curriculum changes, standardized and centralized testing, multicultural education, and school democratic governance.

On the other hand, global and educational reforms should stress the idea of a unitary cultural system, meaning that the nation-state model of social organization should diffuse the processes of rationalization and standardization, and thereby illustrate a second pervasive force toward educational convergence in contemporary societies. While not suggesting that all nations are moving toward a worldwide monolithic structure of education, this perspective proposes that school systems will adopt broadly similar forms because of increasing global rationality.

Consultation with other countries.

This involves procedures for assessing public opinion about a plan or major development proposal, or in the case of educational planning; the means of obtaining the views of affected neighbors or others with an interest in the proposal is an important tenet in consultation. (1). Consultation leads to an action. It is an opportunity for genuine and respectful listening, in which educational reforms, cultural understanding, financial help and many others issues are committed to acting on the views heard. This does not necessarily mean that every suggestion made in a consultation is implemented, but that input will always be taken into account. (2). Consultation is part of the ongoing relationship between and among countries that stand for ways and means of harmonizing educationally differences from a global perspective. In this case, an emphasis on mutual trust and understanding is built up over time, through a continuing process of discussions, decisions, and follow-through (Robertson, 2002).

INTERNATIONAL EDUCATION

From the 1940s to the 1980s, the United States viewed the world from many different perspectives. Initial efforts in the 1940s and 1950s were designed to rebuild war-ravaged Europe; efforts during the 1960s to the 1980s witnessed a change from earlier efforts; where major corporations from across the United States to begin to dominate and change the social and educational structure. It is this change that presented present-day Europe, Africa, and the Middle East with inevitable short and long term effects. Both of these have implications for present and future generations across the globe.

Comparison of goals.

Across the continents of Europe, Africa, and Asia there are signs indicating an emerging independence from an American-dominated world. McLaren (1998) gave voice to some of that movement. We shouldn't teach against globalization. I have no problem with globalization per se but with the globalization of capitalism. We need to keep this distinction clear. Globalization is inevitable the sharing of cultures, values, information, knowledge, etc., worldwide - but the globalization of capitalism is something else. . . . I seek a concrete utopia based on hope and reason where feelings, beliefs, and intuition can be rationally traced to their sources in the real world and where progressive change is brought about by class struggle, by anti-imperialist, gender-balanced, anti-racist pedagogies designed to bring about a social revolution (Shaughnessy, 2006).

Roles of individuals & individual countries.

A report (1997) to United Nations General Assembly acknowledged the importance of the right to development for every person and for all peoples in all countries as an integral part of fundamental human rights. Wood & Gray (1991) stressed on a role for all of the members of the United Nations to become active in the development of all of their citizens.

There are many sources for leadership in energizing nations to develop greater interest in harmonizing individual educational differences. The authors suggest that it is the strength of the nation's economy that will encourage individuals within a given nation to become active in finding methods for reaching understandings about commonalities in the process of education as well as the content for a nation's curriculum standards (Spilimbergo, 2006).

Assessment of goals.

The authors of this work believe that the human is not only a creature of environment and education, but also a creator of environment and education. Education is determined and controlled by society, whereas education also changes society. The core of pedagogic practice is the construction of a certain kind of "rationality" (Yang, 2004)

A report from the National Center for Education Statistics (2005) suggested a relationship between literacy skills and the economic, social, and personal characteristics of individuals; there are common points of interests for all of the nations to consider. When viewed individually, it is a most challenging task to consider individually all of the characteristics each nation recognizes and rewards; with more opportunities to engage in instant communications (consider the emergence of the quality of the internet being delivered across the globe during 2006-2007) and share work opportunities, nations representatives serve the good for all of its citizens by considering more common goals for the educational systems in all of the countries.

The United States does not hold the market on creativity, ideas, or effective communications; each of the nations has similar potential. It is that potential that brings education differences and the world economies together. The "marketplace" common to all of the nations appears to be the benchmark used to measure the success or failure of the educational systems.

INTERNATIONAL PERSPECTIVE ON EDUCATION

Nations all over the globe have different educational perspectives, priorities, emphasis, and internal structures; these perspectives in most cases tend to bring about an educational disharmony. The different perspectives relating to education provide both harmony as well as disharmony. Each nation views their educational structure and procedure to be unique to their own needs and cultural demands; these nations do not view usually the global impact of their educational offerings. This is not unique to the developing nations; it is also true of more developed nations. When considering education from an international perspective, it is an examination from both an

internal American view as well as an external view of the world and of the American view of education.

AN AMERICAN VIEW OF THE WORLD.

An American view of the world is theoretically seen to promote world democracy and international understanding, especially during the interwar years; however, the United States lacks the practical application of how it wants to promote such democracy and international understanding. It becomes more evident when American institutions begin to install an American-version of education in countries who approach education differently. The United States may have good intentions theoretically on how to promote democracy and international understanding; however, it is the execution of that intent that results bad strategically and practical approaches on how to accomplish them. Ultimately, many of the American attempts are viewed negatively seen from an international perspective (Moos, Mahony & Reeves, 1998).

AN INTERNATIONAL VIEW OF AMERICA.

America is seen to be sending mix messages that conflict with other countries' views on education. Representatives of the American government demonstrate a lack of strategic and practical approaches on how to sell its positive educational intentions. The model for delivering education is seen in a positive light; however, the accompanying rhetoric is seen as harmful and destructive to that nation's cultural and religious life. Some countries may see such approaches as "exerting" hegemony thereby polluting and subsequently destabilizing the originally valued norms that cohesively guide the social, economic and political fabrics of such countries' survival. For example, (a) an African approach to educating its children involves a collective effort, whereas individualism is seen to permeate America's education, (b) American education is seen from an international perspective to lack some cardinal points (cultural values that come with education) that leads to the appreciation, preservation, and respect of one's culture. Instead, America's education prepares one to get the certificate/diploma, get a job, and then live a life of "I don't care about others, me only," (c) too much commercialization dominates the America educational system and thereby sends a wrong message on the quality of such an educational establishment, especially when the receiver of such commercialized education cannot defend their knowledge of that education, and (d) nonexistence of mutual trust between parents, school personnel and the government. Unlike in other countries, American education is viewed as one that lacks mutual trust among players. This lack of trust makes it difficult for different educational players in and outside America to work cooperatively, collaboratively and consultatively to achieve a common goal.

POTPOURRI – WHERE DO WE GO FROM HERE?

Surely, it is quite understood that educational differences among countries exist, and even more so the approaches are different. Nevertheless, in order to harmonize these educational differences, we must embark on certain principles. The following guiding principles will help in harmonizing these differences: (1) cooperation_in an ideal team work, there is always cooperation. Lack of cooperation can destroy a team work. "Behold how good and how pleasant it is for brethren to dwell together in unity" (Gutjahr, 1999). (2) collaboration_Countries must have shared objectives; sense of urgency and commitment; dynamic process; sense of belonging; open communication; mutual trust and respect; complementary, diverse skills, knowledge, and intellectual agility. (3) consultation: There must be procedures for assessing public opinion about a plan or major development proposal, or in the case of a planning application, the means of obtaining the views of affected neighbors or others with an interest in the proposal.

CONCLUSION

A view of education from the perspective of citizens of the United States and citizens of nations across the globe are different. The differences become a focus of prime interest whenever one country rates their own system as superior for educating their own citizens to that of other countries. There are occasional international events that provide an avenue for comparison; however, the math and science competitions reflect only one limited aspect of the entire educational system. There are much more complex issues involved than focusing on one portion of the curriculum.

Developing an approach for harmonizing the educational differences among the countries of the globe will be a daunting task for an individual country; however, it is important that the process begin. With the recent developments in communication technology, nations have greater opportunities to share information with greater

frequency and from a greater variety of resources. Limiting factors will be two-fold: (a) technology, or quality technology in all of the countries; and (b) communication, or more specifically, clear communication.

A tremendous challenge facing all of the nations of the globe - educating today's youth for tomorrow's challenges. There are goals to be set, standards to be discussed, and planning to be discussed. There is a tremendous need to bring all of the nations together to discuss this issue. From an international perspective, education is a very high priority for everyone.

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EDUCATIONAL LICENSURE FOR FUTURE ENGINEERS

Jeremy V. Ernst

North Carolina State University

Aaron C. Clark

North Carolina State University

ABSTRACT

Presented with regional and national teacher shortages and the shift of technology education from more traditional content and practices to targeted engineering and design competencies, it is time to investigate potential means for forming the future workforce. An explicit question was posed to seven sections of a university Fundamentals of Graphics Course to determine if the sample (primarily composed of future engineers) would consider enrolling for an extra academic year to obtain a teaching license in technology education. Demographical descriptions of the sample are established, findings from the associated study are expressed, and frequency and proportional information is presented concerning engineering student licensure consideration.

INTRODUCTION

Without question, educators influence lives and orientations to learning of students. Central to the development and maintenance of an intelligent and capable society is quality teachers (Richardson & Watt, 2006). Government acknowledgement of this is evident through continued structured incentive for professionals to enter the field of education. Lai, Chan, Ko, & So, (2005) indicate that it is widely recognized by policy makers that the recruitment and retention of quality teachers is a major educational concern. Through initiatives and broadly expressed concerns, teaching appears to be a socially valued occupation despite the fact that many countries are currently experiencing difficulties in attracting teachers.

Of particular notice is the vast shortage of teachers in the secondary disciplinary areas of mathematics, science, computer sciences, and technology (Richardson & Watt, 2006). Mathematics and science have long experienced teacher shortages in high schools across the United States. Computer sciences have begun to experience the tip of the struggle that mathematics and science have been enduring for some time. Technology education has gravitated into a national teacher deficit as well, with teacher preparatory programs being dissolved, restructured, and doing more with less resource. This situation has been further amplified by the transition or “concentration” of the discipline on a much more narrow scope. These narrowed concentrations settle away from many of the traditional curricular components of materials processing, construction, manufacturing, electricity, and transportation. As technology education shifts toward engineering and design competencies, the need for qualified and experienced educators emerges to ensure a strong and steady pipeline of prepared students for colleges of engineering, design, and education.

METHODOLOGY

Since the early 1990's, students in introductory engineering graphics courses at North Carolina State University have been given surveys to examine course content and practices, attitudes and opinions concerning the usefulness of technical graphics in their personal and future professional life, problem solving approaches and strategy for graphics problems, and sources of academic motivation. The intent of administering and compiling data gathered through the various survey instruments was to provide the North Carolina State University Graphic Communications Program with a snapshot of the introductory engineering graphics courses. Included in the large base of information gained through extensive survey research are failures and successes associated with teaching graphics concepts, course structure, professional experiences, learner motivation, and learner satisfaction.

A specific inquiry, appearing on the demographics portion of a targeted investigation, concerned engineering student consideration of pursuing a teaching license. This inquiry was paired with a modified graphics version of the Colorado Learning Attitudes about Science Survey (CLASS). The CLASS instrument has traditionally been used to measure student beliefs enrolled in introductory physics and chemistry courses. The graphics version of CLASS, North Carolina Learning Attitudes about Graphics Education Survey (NCLAGES), was

used to gauge learner perception of repetition of problems when learning graphics, attitudes of how the world works concerning graphics, and engineering and design concepts in graphics.

Seven sections of the Foundations of Graphics course were selected at random to administer the demographics survey and the NCLAGES instrument. Foundations of Graphics is an introductory course designed to teach the fundamentals of engineering/technical graphics at North Carolina State University. The course predominately serves engineering or graphic communications majors. The Foundations of Graphics students were given the survey during the 13th week (out of 15) of instruction. The demographics surveys and NCLAGES instruments were collected and compiled.

DEMOGRAPHICS

The Fundamentals of Graphics course attracts a variety of majors, with engineering disciplines representing the majority. Demographic information collected from the survey provided the following information (see Table 1). The majority of the participants, 87 (54%), were between the ages of 18-19, while 59 (37%) were between 20-21 years of age. Of the students who were included in the survey, the majority, 109 students or 68%, were sophomores. The students were predominately Caucasian, with 142 or 88% falling into this category. Most of the study participants, 138 (86%), were also male. Fifty-one of the students were majoring in mechanical engineering, and 35 were majoring in civil engineering. Other majors included 22 in aerospace engineering, and nine in graphic communication. Eighteen (11%) were transfer students from another college or university, and 59 (37%) had previously taken a technical graphics course in high school or college before taking Foundations of Graphics.

Table 1. *Demographics for Study Participants*

Age (n/%)	Class (n/%)	Race (n/%)	Anticipated Grade (n/%)
17 or less (0/0%)	Freshman (4/2%)	Caucasian (142/88%)	A (82/51%)
18-19 (87/54%)	Sophomore (109/68%)	African-Am. (9/7%)	B (72/45%)
20-21 (59/37%)	Junior (32/20%)	Asian (4/2%)	C (7/4%)
22-24 (8/5%)	Senior (16/10%)	Hispanic (2/1%)	D (0/0%)
24 or greater (7/4%)	Other (0/0%)	Native Am. (2/1%)	F (0/0%)

FINDINGS

As many of the other Fundamentals of Graphics studies over the past fifteen plus years, the NCLAGES survey provided useful insight to serve as the basis for decision-making for the course and program. The NCLAGES instrument identified that students understand how the content covered could be used beyond the course and students appreciate the hands-on method of instruction (Clark, Ernst & Scales, 2008). In terms of personal interest, the students indicated that the course's visual content and graphics could be used in everyday activities. The highest mode values for any grouping of statements in the study were found in the category of making sense of the information students learned in the course. The statements in this group also indicated that the information and processes taught in the course were viewed as a form of problem solving by students. Many students see graphics education and visual skill development as a necessary basic, but difficult to learn. Overall, students entering college understand that a difference exists between visual ability and visual skill and the need to increase their knowledge of visualization and communications.

One hundred-sixty-one students correctly completed item number fifteen (Would you consider taking a fifth year to receive a teaching license in Technology Education?) of the demographics survey. Of the 161 student participants, 27 reported that they would consider taking an extra academic year to receive a teaching license (see Figure 1). Five of the 27 students that would consider pursuing a fifth-year license were female. There were only 22 females in the 161 student participant pool. Three of the students that would consider pursuing a fifth-year license were 24 years of age or older. There were only seven students in the 24 or older category out of the entire student sample. The academic level of the students that would consider pursuing a fifth-year license were comparable to the overall academic level distribution with 18 (66 percent) being sophomores and 7 (26 percent)

being juniors. There was one freshman and one senior in the group that selected that they would consider pursuing a fifth-year license.

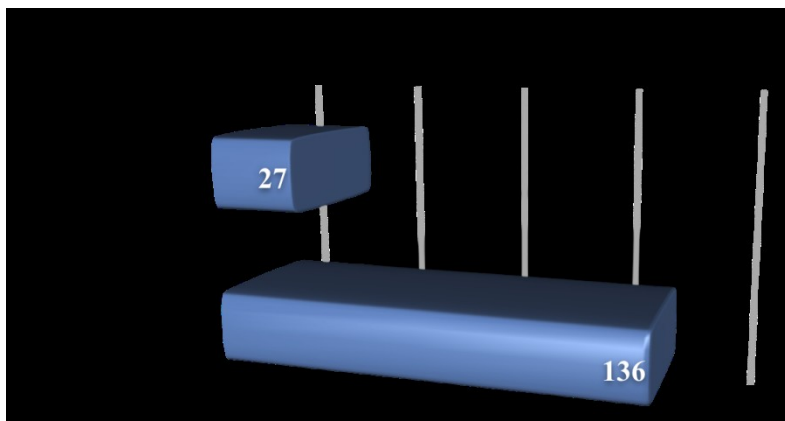


Figure 1. Consideration of Seeking Teacher Licensure

CONCLUSION

There are a wealth of viewpoints that the acquired information can be approached from. To list a few: The majority of the Fundamental of Graphics students do not exhibit an interest in ever pursuing a career in education, do not exhibit an interest in ever pursuing a career in the discipline of technology education, or perceive education as a less desirable career option in comparison to their anticipated career. Regardless of the specific reasoning of the students enrolled in the Fundamentals of Graphics course, the teacher shortage in technology education persists. A major research need is the reasoning for individuals not selecting teaching as a career and the barriers associated with entering teaching (See, 2004). It has been widely proposed that monetary incentives must be enhanced to effectively recruit quality teachers. Education offers little support for those that are entrepreneurial in spirit, resulting in many leaving the profession or not being initially attracted to it (Johnson, 2001).

The 2008-2009 enrollment for the College of Engineering at North Carolina State University is 8, 151 students in comparison to the College of Education's 1,791 students ("NC State," 2008). If the interest in pursuing an add-on teaching license is proportional across the College of Engineering then 1,386 students could potentially be interested. This presents a prospective population to address the expanding teacher deficit in technology education. Considering these needs and targeted interests of students, colleges of education need to re-think how to attract students into high need fields within education (i.e. technology education) and do so in an innovative way. From offering a fifth year degree with licenses, to a sixth-year Masters; many new strategies can be in place to add new recruits to this shortage. More research is needed into how best to recruit, maintain, and have students graduate with education degrees. Also, fundamental marketing research is needed as well as to ways to attract students into fields like technology education and other disciplines. As we strive to prepare teachers for the 21st century, teacher educators need to consider the fact that in order to have students in the public school classrooms teaching 21st century skills, more research into providing for these pre-service teachers needs are important. Also, looking at new and better strategies for reaching this population is just as important because for teacher education to change and be attractive to students, our instructional methods must change as well.

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THE IMPLEMENTATION OF MULTICULTURAL EDUCATION CONCEPTS IN CATHOLIC GRADE SCHOOLS IN ILLINOIS, USA

K. Paul Kasambira
Bradley University

Michelle V. Willi
St. Mark Catholic School

ABSTRACT

Participants for this study were randomly selected. These participants were not identified by name, number or in any way. The questionnaire consisted of 50 Likert Scale items. A little over 25% of the participants responded. The collected data were analyzed, in terms of the frequency with which the respondents thought they incorporated the issues stated in each item. It was the frequency of the responses that the interpretation of the data focused. Information concerning three reasons why teachers did not incorporate multicultural education concepts was also reported in the analysis. Implications for the study as well as recommendations for further studies were stated at the end of the study. Conference participants will be given several handouts, based upon the essence of the presentation.

INTRODUCTION

Are Catholic grade schools really doing what they profess to do? Historically, Catholic schools were established as a refuge from prejudice and bigotry (Hunt & Kunkel, 1984). They also espouse that their main missions, other than to teach religious doctrine, are to educate all children and to build community while celebrating the dignity and equality of all God's children (Litton, 1998). Litton (1998) states that Catholic schools see diversity, not as a problem, but as a resource, that their religious curricula only enhance their ability to address diversity issues, and that through their church affiliation that this too, can only augment their ability to reach out and develop community.

BACKGROUND

Research Problem

A cursory review of literature related to this topic suggests that little, if any, studies have been done, especially at the state level, to determine the degree or level at which multicultural concepts are incorporated into the curricula of Catholic grade schools. In Litton's 1998 research, he found that Catholic schools, because of their religious affiliation, are ideal places for the inclusion of multicultural concepts. To get an insight into this problem, the researchers decided to do a descriptive study of grade school teachers in 40 randomly selected schools in the State of Illinois. Information to investigate the essence of this problem was collected through questionnaires mailed to participants.

Purpose of the Research Study

The purpose of this study was to identify the degree to which classroom teachers incorporate multicultural education concepts in Catholic grade school curricula in the state of Illinois. The first part of the survey addressed personal characteristics of the participants, which were divided into background information about the respondents, formal educational level, and the length of their teaching career (Creswell, 2003). The second part of the study was designed to solicit information dealing with the degree to which classroom teachers incorporated multicultural education concepts such as class, ethnicity, race, gender, exceptionality, religion, language, and age (Gollnick & Chinn, 2006).

Research Items

The development of the research instrument which consisted of 50 items will be discussed in detail later, in a section, entitled Methodology, under the subheading research instrument.

Assumptions

The first assumption was that the researchers thought there was an aggressive staff development plan in Catholic schools, which would prepare teachers to systematically acquire skills they would use to incorporate multicultural education concepts in their teaching. The second assumption was that multicultural concepts would be effectively implemented across the curriculum, irrespective of the subject matter. The last assumption was that each subject would lend itself to the incorporation of multicultural concepts.

Limitations of the Study

The first limitation would be that the study focused only on grade school teachers. It might have been a good idea to have included teachers who taught in grades K-12. This might have given the researchers a more comprehensive picture of what happens in Catholic schools as far as teachers' inclusion of multicultural education concepts was concerned.

Organization of the Study

This research study was divided into four sections. Section one discussed the statement of the problem, the purpose of the study, research items, assumptions, limitations of the study, and the organization of the study. Section two, methodology, discusses the nature of the human subjects used, the development of the research instrument, the sampling method, data collection method, and the analysis of the data. Section three covers the analysis of the research findings in terms of the frequencies with which subjects responded to each of the items. Section four includes a summary of the findings and conclusions made. It also includes a section on reasons given by respondents concerning why they did not implement multicultural concepts in their teaching. The last part of this section discusses implications for further studies and gives recommendations for further research on this topic.

METHODS

After reviewing the literature, the researchers concluded that no existing study had been completed that addresses the degree to which multicultural concepts are incorporated into the Catholic grade school curricula. In an attempt to uncover this observable fact, the researchers feel that this study would be an important piece of information in aiding administrators and staff members in curriculum development.

Research Instrument

The research study was limited to Catholic grade teachers who taught Kindergarten through eighth grade. Because the survey instrument was anonymously sent to potential participants, there were no risks to the subjects participating in the study. It was assumed that the knowledge gained from this study would be beneficial to the participants' schools and their students, in that the results might bring about curricula changes in the way multicultural concepts are implemented in their classrooms. The research instrument had 50 items.

Subject Sampling Method

Teachers in each of 424 Catholic grade schools in the State of Illinois had an equal chance of being selected to participate. Those who voluntarily returned the completed surveys granted the researchers permission to use their information within the research study. The researchers took all necessary provisions to ensure the privacy of participants as well as the confidentiality of the data collected from each participant. Survey instruments were mailed to 250 teachers. The returned 56 responses were sent to the Bradley University Computer Service Office for analysis. The raw data were further analyzed by the researchers, using the Statistical Package for Social Science (SPSS) computer software program which generated cells representing frequencies and percentages for each of the 50 items. The last part of the instrument solicited respondents' narrative comments concerning three reasons why

they would not incorporate multicultural education concepts in their teaching. These comments were “codified” in general terms and frequencies for each of the general category were also assigned.

Results

The analysis of the data obtained in the study was divided into the following subsections: An overview of multicultural education, socioeconomic status or class, race and ethnicity, sex and gender, exceptionalities, language, and age. Each of these subsections was discussed separately, to minimize any confusion or overlapping of the contents in each subsection.

ANALYSIS OF FINDINGS

Of all the subjects who responded to item number one, 39.3% of respondents indicated that they sometimes defined multicultural education as an educational strategy, while almost 27% of them indicated that they did it most of the time. Of all those who responded to the item concerning why certain groups of students such as Puerto Ricans, Mexicans, and African-Americans tend to score below European Americans on standardized test, 71.4% of them indicated that they never discussed the issue. Almost half of those who responded to item three concerning the fact that culture provides a “blueprint” that determines the way we feel, think, and behave, indicated that they sometimes do it.

Discussion of Socioeconomic Status or Class

Concerning item nine which dealt with the fact that the socioeconomic condition of persons and groups can be measured with a criterion called socioeconomic status (SES), 72.7% of the respondents pointed out that they never discussed this subject in their classrooms. Thirty-six and four tenths percent of the subjects who responded to item ten, dealing with the fact that the best indicators of occupational prestige are education and class, specified that they rarely talked about it, while 30.9% of them indicated that they never discussed this matter.

Discussion of Race and Ethnicity

Forty-one and eight tenths percent of the subjects, who responded to item number thirteen, indicated that they sometimes discussed the fact that racism is a mixture of prejudice and discrimination, 20% pointed out that they talked about it most of the time. Concerning the fact that in the 1960s, the Civil Rights Movement reduced barriers that prevented many African-Americans from enjoying advantages of the middle class, 43.6%, indicated that they sometimes incorporated that discussion into their classroom activities, while 20% responded that they included that discussion topic most of the time.

Discussion of Sex and Gender

Concerning the fact that patriarchal arrangements in society have made women subordinate to men, 69.1% of the respondents pointed out that they either rarely or never talk about this subject matter. Concerning the fact that superior status men have over women, is reflected in the inequities that exist in differences in wages earned by men and women over 67% indicated that they never or rarely talk about this issue.

Discussion of Exceptionalities

Concerning the fact that developing a sense of cultural awareness is crucial to developing effective interactions with students with disabilities, nearly 71% of respondents indicated that they rarely or never discussed this topic.

Discussion of Religion

Of those who responded to the item which dealt with the fact that religion, appears to influence patterns of sex roles, marriages, and political attitudes, 62.5% indicated that they never or rarely discussed this issue. Nearly 54% of the respondents indicated that they discussed the fact that religious behavior is learned. Of all the subjects who responded to the item which dealt with whether they discuss the fact that Judaism is one of the oldest religions

known to humanity and provides the historical roots for both Catholicism and Protestantism, 28.6% indicated that they never discussed it, while 26.8% indicated that they always discussed this issue.

Discussion of the Concept of Language

Of those who responded to item thirty-nine which dealt the fact that by age five most children will have learned the syntax and arrangement of words in their native language, 69.1% stated that they either never or rarely talked about this issue with their students. Concerning the fact that the English dialect spoken by the vast majority of African-Americans is Black English, African-American vernacular, or Ebonics, 78.6% indicated that they never discussed this issue.

Discussion of the Concept of Age

Sixty-seven point eight percent of those who responded to this item indicated that they rarely discuss that prejudices are learned behaviors from parents. Concerning item forty-six which dealt with the fact that physical abuse, physical neglect, sexual abuse, and emotional abuse all constitute child abuse, 25% of the respondents indicated that they sometimes discussed this issue, while 23.2% responded that they either always or never talked about this topic.

Reasons for not Implementing Multicultural Concepts

In response to items in which subjects indicated “C” (sometimes), “D” (rarely), or “E” (never), they were asked to list three reasons why they had difficulty in implementing these items. The following are statements extracted from this part of the survey. There was an attempt made to synthesize statements that fell in the same general category, and to tabulate the frequencies with which the statements were made.

1. The subject matter is inappropriate for the age group taught. (33)
2. There is not much diversity found within our school population. (16)
3. The items in the survey are not related to the subject area we teach. (13) A survey questionnaire was sent to 200 teachers in 40 grade schools which were
4. We teach that success is reached through hard work, dedication, positive attitude and respect for self and others. (8)
5. We do not have time to teach these issues. (3)
6. We are not comfortable teaching topics with which we are not familiar. (3)
7. We do not teach multicultural education concepts because some of the topics contradict our Catholic doctrine. (2)
8. In five years, I believe these issues will be more relevant.

SUMMARY OF FINDINGS

Results from this study indicated that there was quite a range in terms, of the degree to which teachers implemented multicultural education concepts in their teaching. The bulk of the 56 teachers who responded to the survey had bachelor degrees. Only one had an associate’s degree, while another held a doctoral degree. About 40% of the respondents had less than ten years of teaching experience. A majority of those who responded to the survey seemed to indicate that they were not very familiar with the multicultural concepts covered in the research survey instrument. A major portion of the respondents indicated that they rarely or never discussed issues dealing with socioeconomic status concepts.

References are available upon request.

CROSS-CULTURAL TEACHING OF ENGLISH VOCABULARY USING FOLDABLES® GRAPHIC ORGANIZERS

DiAnn B. Casteel
Tusculum College

Melanie G. Narkawicz
Tusculum College

ABSTRACT

Graphic organizers are tools which students can use to help improve their learning. Foldables® are interactive graphic organizers which provide a kinesthetic component to learning that promotes retention of academic materials. This study examined the effectiveness of Foldables® in teaching English vocabulary to English-language learners in Ghana, Africa. Both cognitive and affective scores were examined among Primary 1 students (N=46) studying English vocabulary. Teachers in the school where the experiment took place were also trained to teach their students to use Foldables®. The findings indicated that students who were taught using graphic organizers had a significantly higher net gain in words correctly identified when compared to the control group. The affective scores of the experimental and control groups, however, were statistically similar. The teachers trained to use Foldables® reported that they were refreshing, captivating, motivating, etc. All the teachers indicated that they planned to use Foldables® in teaching.

INTRODUCTION

Activities that promote reading and encourage critical thinking are especially valued by teachers worldwide. One method teachers can use to improve reading comprehension and enhance learning is to teach students to use graphic organizers (Katayama; Robinson & Kiewra; Robinson & Schraw as cited in Hoffman, 2003). The term graphic organizer refers to a hands-on manipulative that helps students construct meaning from assigned readings (Hoffman, 2003). Graphic organizers highlight ideas and visually represent relationships among key concepts. Creating a graphic organizer in class requires students to simultaneously use auditory, visual, and kinesthetic skills which can increase retention of materials taught.

Previous research has supported the effectiveness of graphic organizers with students of various ages and in differing content areas. Graphic organizers have been found to improve reading comprehension at differing age levels (McKown & Barnett, 2007; Jacobucci, Richert, Ronan, & Tanis, 2002) and improve affective scores in elementary aged students studying social studies (Casteel & Narkawicz, 2007). Other research in elementary schools indicated that graphic organizers were effective in teaching science (Fisher, 2001). Graphic organizers are also recommended for teaching statistics so that students can see the interconnections between important concepts (Schau & Mattern, 1997). In one experiment with undergraduate psychology students studying sleep disorders, application of content taught was significantly enhanced through the use of graphic organizers (Katayama, & Robinson, 2000). In another study, college students attributed their improved performance on the final exam to their graphic organization of material; the students also indicated that their organizers were good study tools (Hoffman, 2003).

Among the many types of graphic organizers which teachers might share with students are Foldables® such as those developed and promoted by Dinah Zike (Dinah-Might Adventures, 2007a). Foldables® are three-dimensional hands-on manipulative graphic organizers. According to Zike (Dinah-Might Adventures, 2007b) these graphic organizers make it easier for students to grasp concepts, theories, processes, facts, and ideas, or to sequence events as outlined in the content standards. They result in student-made study guides, provide a multitude of creative formats in which students can present projects, replace teacher-generated writing or photocopied sheets with student-generated print, incorporate such skills as comparing and contrasting, and continue to "immerse" students in previously learned vocabulary, concepts, generalizations, ideas, theories, etc. providing them with a strong foundation upon which they can build with newly learned knowledge, observations, and concepts. Students and teachers can use Foldables® to easily communicate data through graphics, tables, charts, diagrams, and models. Foldables® can also be used as assessment tools by teachers to evaluate student progress or by students to evaluate their own progress. Foldables® provide a sense of student "ownership" or investiture in the curriculum. (Dinah-Might Adventures, 2007b, ¶2)

Building on previous work by Casteel and Narkawicz (2007), this study examined the use of Foldables[®] in Ghana, Africa. Specifically teachers in an elementary school in the village of Atorkor were taught how to use Foldables[®]. Additionally, students in this school were taught English vocabulary through the use of Foldables[®]. Three areas were the focus of the study: a) determining teachers' perceptions regarding their training in the use of Foldables[®] and their likelihood of using them in class; b) determining the influence of Foldables[®] in the cognitive domain (specifically examining whether Primary 1 students, whose native language is Ewe, who were taught English using Foldables[®] scored better on Dolch Word List tests when compared to those taught using the standard Atorkor Local Area Basic School Primary 1 curriculum), and, c) determining the influence of Foldables[®] in the affective domain (specifically examining whether Primary 1 students, whose native language is Ewe, who were taught English using Foldables[®] scored better on an attitude survey when compared to those taught using the standard Atorkor Local Area Basic School Primary 1 curriculum).

METHODS

This study took place in July 2008 at an elementary school in Atorkor, which is 120 kilometers from the capital city of Accra, Ghana in West Africa. Atorkor is a small fishing village on the Atlantic coast located in the Keta district of the Volta Region in southeast Ghana. The village and surrounding areas have a population of about 6,000 and the school's student population was 595 (326 males and 269 females); these students were taught by 19 teachers. Although Ghana's national literacy rate is fairly high, in small villages it tends to be much lower. Children who attend school must purchase uniforms as well as daily food in an area where the poverty level is high. The end result is that many young people do not attend school. The official language of Ghana is English (Ministry of Education Science and Sports, 2007), but the villagers' native language is Ewe (pronounced āwāy.)

The Republic of Ghana's Ministry of Education Science and Sports (2007) provides a standardized curriculum and syllabus for the teaching of English language stating that "the status of English language and the role it plays in national life are well known...it is the language of government and administration" (Ministry of Education Science and Sports, 2007, p. ii). English is the required language of instruction from grade Primary 4 onward. Thus success in education depends on the individual's proficiency in English. It is for these "reasons that English Language is a major subject of study in Ghanaian schools" (Ministry of Education Science and Sports, 2007, p. ii).

To address the first research focus area of this study, teachers of the school volunteered to participate in training sessions on Foldables[®] for 2 hours after school each day for seven days. These teachers completed a survey at the end of their training. This survey asked them to rate the effectiveness of their training as well as to indicate how confident they were in teaching their students to use Foldables[®]. They also were asked how likely they were to teach Foldables[®] to their students and in which subjects they planned to use them.

To address the other two areas of focus, the Primary 1 (first grade) class was chosen since these students were just learning to read English words. On Day 1 of the study two researchers observed the Primary 1 class in normal session. The Primary 1 class had 60 students on the roll, but only 46 were present when the study began. All 46 Primary 1 students present on Day 1 at the beginning of the study were asked to complete the pretest attitude survey which asked what students liked and disliked (such as I like to read words, I like to read sentences, etc.) In addition to opinion questions the surveys also recorded each student's age and gender. There were 19 females and 27 males with ages ranging from 7 to 20 (the law in Ghana requires students just starting in school to begin in kindergarten, regardless of age; thus there is a wide range of ages in any given grade). The Primary 1 students' surveys were then divided into separate groups for males and females. Within each group the surveys were then ordered by age. Two new groups were formed by selecting every other survey resulting in two groups of males and two groups of females with widely dispersed ages. One group of males and also one group of females were selected at random and assigned to the control condition and the others to the experimental condition. There were 22 students in the experimental group (9 females and 13 males) and 24 students in the control group (10 females and 14 males).

On Day 2 each mixed-gender group in both the control and experimental conditions was given a pretest using the pre-primer words from the Dolch Word List which contains words that students must know in order to speak basic English. The test was administered using flashcards with one word per card and the number of words that the students got correct was recorded. Each student was tested using the same words, in the same order (i.e., a, and, away, big, blue, can, etc.) Students were also tested privately, where others would not be able to overhear responses and possibly embarrass the student. Also, due to cultural sensitivity concerns, if a student missed more than five words, the testing was stopped and only the number of correct responses recorded up to that point was recorded.

Treatments

Once the pretest Dolch Word List scores were recorded the experiment began. Classes for both experimental and control groups lasted for seven days beginning each day at 7:45 a.m. and ending at 1:45 p.m. The treatment group was taught using Foldables® while the control group followed the standardized syllabus for Primary 1 in Ghana. Because success in education depends on the individual's proficiency in English, the Ministry of Education Science and Sports (2007) provides a standardized curriculum and syllabus for the teaching of English language. The aim of the standardized syllabus is to help pupils to: develop the basic language skills of listening, speaking, reading and writing; attain high proficiency in English to help them in their study of other subjects as well as in the study of English at higher levels; cultivate the habit of and interest in reading; and, communicate effectively in English (Ministry of Education Science and Sports, 2007).

There are five sections of instruction for Primary 1 students: listening/speaking, grammar, reading, writing/composition, and library. The second unit of the reading section addresses object/word matching and word recognition; the control group focused on teaching these skills as did the experimental group.

The control group was taught primarily through lectures and students copying material from the blackboard in their "Examination Blue Books." The teacher would lecture and call upon an individual student to stand and answer a question. This procedure was repeated throughout the lesson. Many times several students were individually called upon to answer the same question and expected to repeat the exact response provided by the previous student.

The experimental group was taught using Foldables® and since the students in the experimental group were not able to independently read even the easiest of the basic English words, the first words taught were *big* and *little*. To illustrate big and little these students were taught to use a 'hamburger fold' with an elephant, a goat, a school, a hut, a man, and a boy (see example in Figure 1).

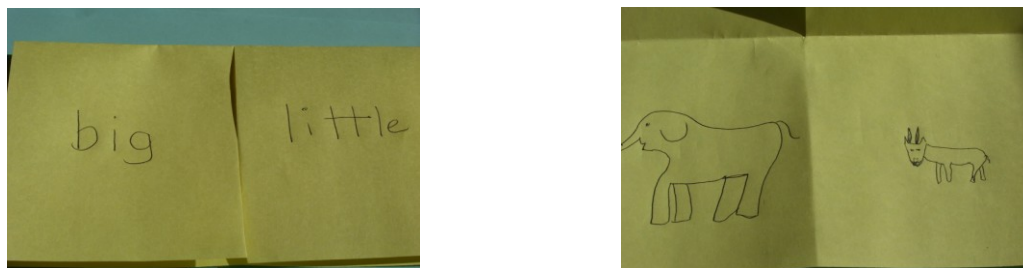


Figure 1. Outside and inside of a two-tab hamburger fold showing the concepts of big and little

On Day 3 the experimental group reviewed the lesson on *big* and *little*; then the students were taught *look*, *and*, *a*, *three*, *two*, *one* using a hotdog fold. Students drew one, two, and three items. Work began on the words *red*, *yellow*, *blue*. Day 4 began by finishing work on *red*, *yellow*, *blue* and then followed with introducing verbs (*run*, *plan*, *go*, *can*) and the word, *I*, using a 4-tab hotdog fold. The concept of a sentence was introduced. On Day 5 the previously learned words were reviewed; then the students made a 16-square fold. On the 'blackboard' (a rectangle painted black on the stone wall in front of the class), one researcher drew a 16-square chart and placed one English word that had been taught in each square. Beside the first square, a second 16-square chart was drawn. The correlating Ewe word from the first chart was written in each of those squares. Students created similar 16-square charts that they cut out to create tiny "flash cards" which had on one side the word in English and on the other side the same word in Ewe. The concept of a flash card was completely new to them and students were amazed that they could practice reading words in English and then turn the card over to see if they were correct by reading the word in Ewe. Students made a pocket foldable to serve as a holder for their 16 flashcards. The researchers wrote sentences on the board, using the Dolch List words previously taught, and had students read those sentences aloud. Students also wrote words that they knew and then drew/colored something to go along with the word. One of the researchers then administered a formative assessment of the 16 pre-primer Dolch words previously taught to determine if students were actually learning and to determine needed adjustments in the lessons (for this assessment words were shown on a flash card, one at a time to each student in a private area). The most frequently missed words were *I*, *can*, *look*, *and*, *play*. Students then completed 4-tab Foldables® to review *go*, *run*, *play*, *can*. Students also wrote sentences using these words to review words in context and improve comprehension of word meaning. Day 6 started with a review in which students drew a picture illustrating *go*, *run*, *plan*, *can* on a 4-tab foldable. As a result of the formative assessment, it became apparent that students were having difficulty with *ä* (the "short a" sound). To help with this, students made a Visual Kinesthetic Vocabulary (VKV) foldable with the words *a*, *and*,

can. Students completed a 3-tab foldable and worked with the words *plan*, *can*, and. The researchers then wrote sentences on the black board (e.g, I like football ☹ 1 2 3 4 5 ☺.) Students practiced circling their response; one student at a time would come to the blackboard and circle their response. The other sentences were I like caning (which means to be beat/hit with a stick), sweeping, singing, dancing. The 16 words in their pocket foldable were reviewed as well as reading sentences on the blackboard.

During all six days, students were also introduced to different types of commercially prepared flash cards (i.e. alphabet, numbers, memory, matching) and had children's picture books that they were permitted to view after their work was finished. Flash cards and picture books were used as fillers to provide extra time for slower students to complete their work.

On the final day (7), the Dolch Word List pre-primer test of the 16 words that were taught was administered to both the experimental and control groups (once again stopping if/when a student missed 5 words.) This testing situation was identical to the pre-test environment. The post-attitude survey was also administered to all Primary 1 students in a whole class setting in a manner identical to the pre-attitude survey administration.

RESULTS

Teacher Participants

Four males and two females responded to the teacher survey. The teachers had a mean age of 37 years (SD=12.55), with a median of 36.5 and a mode of 28. Ages ranged from 22 to 53 years. These teachers reported a mean years teaching experience/years in education of 13.17 (SD=12.16); the median was 9.5 while the mode was 2.0 with responses ranging from 2 to 30 years. The teachers reported that they instructed an average of 129.50 (SD=162.22) students each year. Responses ranged from 0 for an administrator to 450 for the technology teacher; the median number of students taught was 76. Two teachers taught all subjects, one (the administrator) reported teaching no subjects while one each taught technology, math/science, and music/language/religious/moral education. Teachers reported varying credentials including 1 with a bachelor's degree, 1 with a basic education diploma, 2 with Senior Secondary School Certificates, and 2 with a Diploma in Basic Education plus 3 years post-secondary Certificate A.

The responses to the first seven survey questions on the teachers' survey indicated that they thought the training was quite effective (see Table 1).

Table 1.

Teachers' Responses to Survey Items 1-7 Regarding Effectiveness of Training on Foldables®

Question	Frequency (%)					Median
	(1) Strongly Disagree	(2) Disagree	(3) Not Sure	(4) Agree	(5) Strongly Agree	
1. The training on the use of Foldables® was effective.	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)	5.0
2. The training on Foldables® was interesting.	0 (0)	0 (0)	0 (0)	2 (33)	4 (67)	5.0
3. The training on the use of Foldables® was well presented.	0 (0)	0 (0)	0 (0)	3 (50)	3 (50)	4.5
4. The training on use of Foldables® was communicated effectively.	0 (0)	0 (0)	0 (0)	2 (33)	4 (67)	5.0
5. The trainer encouraged questions on the use of Foldables®.	0 (0)	0 (0)	0 (0)	4 (67)	2 (33)	4.0
6. I am confident that I know how to use Foldables® to teach different subjects.	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)	5.0
7. I think that students will find Foldables® useful.	0 (0)	0 (0)	0 (0)	3 (50)	3 (50)	4.5
Totals	0 (0)	0 (0)	0 (0)	14 (33)	28 (67)	5.0

In response to Survey Question 8, 83% of the 6 respondents indicated the time spent on training in how to use Foldables® was *About Right* while 1 person indicated it was *Too Short*. On Question 9, do you plan to use

Foldables[®] to teach students in your classes, all 6 respondents said yes. The teachers said they were most likely to use Foldables[®] in teaching science and English (see Table 2).

Table 2.

Response to: In which subject(s) do you think you will be most likely to use Foldables[®]?

Subject	Frequency	Percent	Valid Percent
Information/Communication Technology (ICT)	1	16.7	16.7
Ghanian (Ewe), Religious and Moral Education (RME)	1	16.7	16.7
Creative Art and Math	1	16.7	16.7
Science and English	2	33.3	33.3
English, Citizenship, Science, Creative Arts, Math	1	16.7	16.7
Total	6	100.0	100.0

In response to Question 10, have you ever been trained to use graphic organizers such as Foldables[®] prior to this training? Only 2 (33%) of the 6 respondents said yes. Comments from the survey indicated that the teachers enjoyed the training, particularly the amount of activities it included. Among the comments provided on the survey were that the teachers thought that the Foldables[®] were captivating, refreshing, motivational, and enjoyable. The teachers also said they thought Foldables[®] would be very useful in teaching.

Student Participants

The experimental group (n=22) was 59% male and 41% female while the control group (n=24) was 58% male and 42% female. The students in the experimental group had a mean age of 10.50 (SD=2.86) while the control group's mean age was 10.38 (SD=2.12). These differences in age were not significant ($t=.169$; $p=.866$; $df=44$).

Cognitive domain results were examined first. To determine if Primary 1 students (whose native language is Ewe), taught English using Foldables[®] scored better on Dolch Word List tests when compared to those taught using the standard Atorkor Local Area Basic School Primary 1 curriculum, students were compared (using a t-test for independent samples) on the pretest Dolch Word List to ensure the two groups were equivalent at the beginning of the study. As shown in Table 3 the two groups had pretest means that were not significantly different ($t = 1.779$; $p = .085$). Thus, these groups were statistically equivalent on Dolch Word List knowledge at the beginning of the experiment.

Table 3.

Statistical (t-test) Comparison of Dolch Word List Pretest Scores of Experimental and Control Groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental - Foldables®	21	1.1429	.72703	.15865
Control – Standard curriculum	23	.8261	.38755	.08081

Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tail)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	7.268	.010	1.826	42	.075	.31677	.17348	-.03333	.66687
Equal variances not assumed			<u>1.779</u>	<u>29.895</u>	<u>.085</u>	.31677	.17805	-.04690	.68044

Net gain scores were calculated by subtracting the pretest Dolch scores from the posttest Dolch scores. The mean net gain scores were then compared using a t-test for independent samples. Results show a significant difference ($t=12.044$; $p=.000$) and a strong effect size ($d=6.15$) with the experimental group knowing an average of 9.8 more words than the control group. The experimental group had a mean net gain of 12.1 words while the control group had a mean net gain of 2.3 words (see Table 4).

Table 4.

Statistical (t-test) Comparison of Dolch Word List Net Gain Scores of Experimental and Control Groups

Group	N	Mean	Std. Deviation	Std. Error Mean					
Experimental - Foldables®	21	12.0952	2.79114	.60908					
Control Control – Standard curriculum	19	2.3158	2.28650	.52456					
Levene's Test for Equality of Variances									
t-test for Equality of Means									
95% Confidence Interval of the Difference									
<i>F</i>	<i>Sig.</i>	<i>t*</i>	<i>df</i>	<i>Sig.</i> (2-tail)	Mean Difference	Std. Error Difference			
							Lower	Upper	
Equal variances assumed	.643	.428	<u>12.044</u>	<u>38</u>	<u>.000</u>	9.77945	.81198	8.13567	11.42323
Equal variances not assumed			12.166	37.655	.000	9.77945	.80383	8.15170	11.40720

*Cohen's $d = 6.15$ (100% power)

Affective domain results were examined next. To determine if Primary 1 students (whose native language is Ewe), taught English using Foldables® scored better on the attitude survey when compared to those taught using the standard Atorkor Local Area Basic School Primary 1 curriculum students were compared (using a t-test for independent samples) on the attitude pretest to ensure the two groups were equivalent to begin. As shown in Table 5, the two groups had attitude pretest means that were not significantly different ($t = 1.306$; $p = .198$). Thus, these groups were statistically equivalent in their attitudes at the beginning of the experiment.

Table 5.

Statistical (t-test) Comparison of Attitude Pretest Scores of Experimental and Control Groups

Group	N	Mean	Std. Deviation	Std. Error Mean	
Experimental - Foldables®	22	4.5964	.72005	.15352	
Control Control – Standard curriculum	23	4.2409	1.06450	.22196	
Levene's Test for Equality of Variances					
t-test for Equality of Means					
		Sig. (2-tail)	Mean Difference	Std. Error Difference	95% Conf. Interval of the Difference
	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	

Net gain scores were calculated by subtracting the attitude pretest scores from the attitude posttest scores. The mean net gain attitude scores were then compared using a t-test for independent samples. Results show that each

group gained about a quarter of a point from the attitude pretest to the attitude posttest. The t -test showed that this was not a significant difference between the groups' gains ($t = -.166$; $p = .869$) (see Table 6).

Table 6.

Statistical (t-test) Comparison of Attitude Net Gain Scores of Experimental and Control Groups

Group	N	Mean	Std. Deviation	Std. Error Mean							
Experimental - Foldables®	21	.2562	.67431	.14715							
Control – Standard curriculum	15	.2887	.40497	.10456							
Levene's Test for Equality of Variances		t-test for Equality of Means									
		F	Sig.	t	df	Sig. (2-tail)	Mean Difference	Std. Error Difference	95% Conf. Interval of the Difference		
										Lower	Upper
Equal variances assumed		.993	.326	<u>-.166</u>	<u>34</u>	<u>.869</u>	-.03248	.19567	-.43012	.36517	
Equal variances not assumed				-.180	33.203	.858	-.03248	.18051	-.39965	.33470	

DISCUSSION

This study examined the effectiveness of Foldables® graphic organizers in teaching English vocabulary to Primary 1 students in Africa. It was designed to examine teachers' perceptions of Foldables® following their training on them, as well as to determine their effectiveness in the cognitive and affective domains when teaching students English vocabulary words. The teachers' perceptions regarding their training in the use of Foldables® indicated a very positive response, with teachers describing them as motivational, refreshing, captivating, etc. All the teachers indicated they intended to use Foldables® and that they thought the students would find them helpful. These teachers were of a large range in age and years teaching and only two of the six teachers had previously been trained on graphic organizers. The teachers were responsible for teaching hundreds of children and all of them planned to use Foldables® to teach their students in the future.

In examining the effectiveness of Foldables® in the cognitive domain (specifically determining whether Primary 1 students, whose native language is Ewe, taught English using Foldables® scored better on Dolch Word List tests when compared to those taught using the standard Atorkor Local Area Basic School Primary 1 curriculum), results indicated a large and statistically significant difference in the mean net gain scores between the two groups. The group taught using Foldables® correctly identified an average of 9.8 more words when compared to the control group. This large difference may, however, have been influenced by some experimental factors as discussed below.

The analysis of effectiveness of Foldables® in the affective domain, showed no significant difference between the mean net gain scores of the two groups. Both groups gained about one quarter point from pretest to posttest.

These findings are consistent with previous research that has found graphic organizers to be an effective learning tool (Katayama; Robinson & Kiewra; Robinson & Schraw as cited in Hoffman, 2003). These results are also consistent with previous research that has found that graphic organizers improve reading comprehension (McKown & Barnett, 2007; Jacobucci, et al., 2002) since vocabulary proficiency is a prerequisite for reading comprehension. Previous research indicated that the use of the Foldables® type of graphic organizers was better at improving affective scores when compared to Worksheet/Lecture teaching methods (Casteel & Narkawicz, 2007), however, the current study found no significant difference in affective net gain scores between those taught using Foldables® and those taught the standard curriculum (which was primarily lecture).

The researchers involved in this study teach both graduate and undergraduate students in education, research, and statistics courses and have found Foldables® to be effective learning tools in these subjects with student retention of material taught with Foldables® showing remarkable improvement as indicated on course exams. Colleagues teaching undergraduate English courses have found similar results.

Results of this study should be considered in light of some limitations. Originally it was planned that two researchers (native-English-speaking U.S. citizens) would teach both the experimental and control groups through

the use of a reversal design. Due to time constraints, however, the reversal did not occur and the control group was taught by the regular Primary 1 teacher. Thus, the control group did not have the benefit of the more highly trained U.S. teachers, however, the experimental group was at a disadvantage because neither U.S. teacher spoke the students' native Ewe language. Regardless of these limitations, however, the African teachers were captivated by Foldables® and their use clearly improved the vocabulary knowledge of the Primary 1 students who were taught to use them.

The results of this experiment indicated that using Foldables® was an effective method for teaching English vocabulary to English-language learners. Using Foldables® significantly improved students' vocabulary while at the same time working as well as their normal instruction in the affective domain. Teachers who are looking for ways to better engage their students should try using graphic organizers since they address auditory, visual, and kinesthetic learning styles. The teachers who were trained to use Foldables® as a part of this study fully intended to use them and thought they were a refreshing way to teach. To more firmly establish the effectiveness of Foldables®, more research is recommended, particularly focusing on students from different age levels, various academic disciplines, and from different cultures.

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HOW TO DEFEAT A BULLY

Vera K. Swade
Saint Leo University

ABSTRACT

Of paramount importance in every classroom and in every school is the safety of our students. Once basic physiological needs are met, humans need safety and security (Ely, Herrell and Jordan, 2009). In this session the participants will learn how to meet students' needs for safety when bullies are present. A lesson plan for elementary and middle grade students will be presented. It has been designed to empower students to recognize a bully and develop a plan to defeat a bully no matter where he or she appears. Participants will have an opportunity to practice this lesson plan in a group setting and make decisions as to how they can use this tool in their respective classrooms. Sample of the lesson plan will be available to all participants.

INTRODUCTION

Scut Farkus is the bully in "A Christmas Story." He repeatedly uses intimidation against individuals of lesser status or power (Bolton, 2005). He terrorizes Ralphie and his friends each day. Initially, they use only two solutions to deal with Scut. The children run away or succumb to the threats and beatings of Scut Farkus. Finally, Ralphie beats up Scut Farkus. In this session, I want to show you how you can teach students that they have other options.

BACKGROUND

In the elementary classroom, we can teach a lesson that helps students to identify a bully and to develop a plan to defeat the bully. In the opening, the teacher asks students to define a bully. After students respond and raise their hands to show how many have been bullied, the teacher talks about the importance of recognizing a bully and knowing what to do to defeat a bully. She explains that today the purpose of the class is to do just that. Then the teacher reads Bully Trouble by Joanna Cole; the students listen to and become familiar with the behavior of a bully. They can recognize which character is the bully. In a classroom discussion of this story, the teacher asks students to identify the bully and his/her behavior. The teacher lists the behavior on a poster board and the class discusses how that behavior can be hurtful to others. The teacher asks students what they can do when they see a bully. After listing some responses, the teacher distributes a worksheet entitled, "What Should You Do?" (Beane, 1999). Students complete the sheet and then discuss the best answers.

INDEPENDENT PRACTICE

In the independent practice, the students work in groups to identify a bully in a story, list the events where the character is bullied and then develop a ten step plan to defeat the bully in the story or in everyday life. The teacher will share a sample of the ten step plan and a list of events in a story where the character is bullied. Prior to the time when students are assigned to groups, each teacher will review the rules and expectations for each student who will be working in a group. Each group will choose a reporter, a cheerleader and a recorder. The teacher should review the duties of each person if students are unfamiliar with the responsibility of each role in a group. Accommodations for students who are ESL or ESE will be made. These students will be paired with a buddy and will have access to a bilingual dictionary or thesaurus or who can read parts of the story in a native language. Each group has a different book or story to read. Some recommended books for elementary classrooms are:

- Bailey the Big Bully by Lizi Boyd
- Best Enemies Again by Kathleen Leverich
- Bootsie Barker Bites by Barbara Bottner
- Bullies Are a Pain in the Brain by Trevor Romain
- Bully by Janie Amos
- The Bully of Barkham Street by Mary Stolz
- Bully on the Bus by Carol W. Bosch
- First Grade King by Karen L. Williams

Each group reports out to the class and a discussion is held after all groups have completed the assignments, if time permits. A discussion about how a bully can be helped to change can also be included, if time permits or if this topic comes up in the any of the groups. Each student returns the completed plan to the teacher at the end of the class period or completes it for homework. It is graded using a rubric that can be developed by the class or the teacher. Completed plans can be posted in the classroom on the bulletin board. This lesson may take more than one class period. This lesson can be adapted to the middle school by using the same content and the following recommended books:

- The Bully Buster Book by John William Yee
- Fighting Invisible Tigers by Earl Hipp
- How to Handle Bullies, Teasers and Other Meanies by Kate Cohen-Posey
- Teen Esteem by Pat Palmer
- How to Take the GRRRR Out of Anger by Elizabeth Verdick and Marjorie Lisovskis

CONCLUSION

This session relates to the conference strand of professional practices because the information on how to deal with bullies can be added to current courses for preservice elementary and middle grades education students. It will provide a tool that can be used in the elementary and middle grade classroom as well as a springboard to the development of other such lessons as well as lessons about how a bully can be helped to change his/her ways. Preservice elementary and middle grades education students will have an opportunity to use these lessons in their internships during the semesters that they are enrolled in the elementary and middle grades program.

At the end of this session, participants will be able to teach a lesson to elementary and middle grade students which will show them how to defeat a bully and participants will be able to use cooperative groups effectively for this lesson. The provided list of books can serve as a catalyst to add to or to develop a classroom library for students to use in the future. Each participant will receive a copy of the lesson plan for elementary, which can be adapted for middle grade students.

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TRACING FOOTSTEPS, THE PROFESSIONAL JOURNEY OF DOROTHY JUNE SKEEL (1932-1997): AN EXEMPLARY TEACHER EDUCATOR AND ADVOCATE FOR THE ELEMENTARY SOCIAL STUDIES CURRICULUM

G. Rasheeda Ayanru
Shepherd University

ABSTRACT

Dorothy June Skeel (1932-1997) received national recognition as an exemplary teacher educator and advocate for the elementary social studies curriculum. This biographical study examined Skeel's professional development within the sociocultural context and life history that helped shape her ideas and actions. Findings related to Skeel's professional development emerged through 1) interview transcripts and 2) analysis of primary and secondary sources related to her writings and professional activities in social studies education and teacher education. The findings revealed that Skeel's career path reflected the challenges women born during the 1930s faced during the post-WWII period until the early 1970s. Curriculum changes in teacher preparation and social studies education also influenced her career. Themes identified were: Out of the Kitchen, A House Without A Wife, A Degree Without the 'M.R.S.', Mother-Lust Satisfaction: Network Supports for Emergent Female Social Studies Scholars, and Walking the Fine Line in Academe: Balancing Acts.

INTRODUCTION

Skeel's personal origins and rise through education, and her negotiations as a female within a traditionally male-dominated academy were centered at the crossroads of major 20th century cultural and social shifts in the United States. For more than three decades, she achieved national recognition as an advocate for the elementary social studies curricula. Skeel was an early proponent of multicultural education and teacher preparation for students in poor urban areas. (1966,1971a) and, when few women were published, she authored a widely respected elementary social studies methods text, *The Challenge of Teaching Social Studies in the Elementary School* (1970a, 1972, 1974, 1979). Skeel's (1995) *Elementary Social Studies: Challenges for Tomorrow's World* is the most recent edition of the three earlier versions. Throughout Skeel's career, she focused on the important role of schools in preparing young children to participate in a democratic society. Skeel often critiqued traditional elementary social studies classrooms that emphasized teacher talk and too much time spent on rote memorization of isolated facts in textbooks. In doing so, she worked on projects that sought to strengthen the effective teaching of concepts in the elementary social studies curriculum that fostered higher level thinking through inquiry and the use of real-life problems (Skeel, 1988c, 1988d, 1989). Skeel (1988e) also helped develop a collaborative preservice program between Peabody of Vanderbilt and Fisk University. Additionally, Skeel promoted various sub areas of the social studies curriculum which included: economic lessons (1988b, 1992), global education (1981a,1981c), Law-related Education (1991; 1993) and Issues-centered curriculum (1996).

Skeel served on the National Council of Social Studies (NCSS) Equity and Social Justice Committee and the Committee on Teaching. She chaired the Nucleus Committee of the NCSS Task Force on Early Childhood and Elementary School. Its' position paper, *Social Studies for Early Childhood and Elementary Education: Preparing for the 21st Century* (1988) stressed the importance of the elementary grades as the foundation for learning beginning civic responsibilities and important concepts from history and the social sciences. She also served on the Center for Civic Education's State Review Committee which contributed to the National Standards for Civics and Government (1994).

TEACHER BIOGRAPHIES: LOCATING THE PRACTICE OF WOMEN IN THE WIDER CONTEXT

Narrative research is a broad term that loosely encompasses a wide array of methodologies (biography, life history, narrative analysis, interpretive studies, and ethnography) that use stories to explain educational events. The use of teacher narratives continues to grow (Clandinin & Connelly, 2000). It is a critical endeavor because it extends beyond retelling a story and searches for a wider deeper meaning (Hargreaves, 1996; Goodson, 1997). This article is part of a growing tradition of teacher biographies examining the contributions and career paths of women in social education (Croco & Davis,1999, 2002; Crocco, 2005; Yeager, 1998). Given that Skeel's contributions were not so much in her publications but as a strong proponent of civic education, equity, and social justice for young children

(Wilhem, 2002), this article focuses on Skeel's career trajectory, barriers faced, societal and professional role expectations related to gender, and experiences that shaped her professional identity. All of which embody the significance of understanding the work of women teacher educators and those who have recently shaped the elementary social studies curriculum. In view of this, it recognizes the dearth of literature in educational reform that examines teacher educators and the limited studies that exist about female teacher educators (Acker, 1997; Grundy & Hatton, 1998; Acker, Dilabough & Webber, 2005). Teacher biographies, particularly of women, help us understand how career and life experiences set in important sociocultural issues of the twentieth century can represent dilemmas and contradictions in their practice. By investigating the experiences of women teachers, studies can now address barriers they face in career advancement, role expectations in and outside of teaching, and their distinctive leadership styles (Acker, 1995). Researchers should be cognizant of how issues of gender pose problematic areas when writing about female subjects (Wagner-Martin, 1994, 2004). One reason is the heavy reliance on the conventional style of biography that models the lives of males. Weiler underscores the importance of identifying how knowledge production within an authoritative discourse excludes major societal issues that might shape a woman's narrative. Furthermore, Eisenman's (2006) critique of Solomon's (1985) classic study asserts that it places too much emphasis on women gaining entry into higher education while ignoring broader historical and educational influences or the impact of societal changes on the institutions in which they worked.

Research Methodology

The research design employed grounded theory (Strauss & Corbin, 1990) an inductive method of comparative analysis. Data from interview transcripts (former graduate assistants, department colleagues, personal and professional friends) and analysis of primary and secondary sources related to her writings and professional activities in social education were stored using Ethnograph, (Siedel, 1998), a qualitative software program. It allowed me to manage the data, store transcripts, code text, and categorize. Erben's (1998) stages of biographical research were used as a framework for data analysis. The constant comparison method allowed me to continually compare concepts and categories noting those that conflicted. Selective coding allowed me to refine categories as themes emerged.

THEMES

The first theme surfacing from the data analysis illustrating major influences that shaped the career path of Dorothy Skeel was *Out of the Kitchen-A House Without a Wife, A Degree without the Mrs.* It reflected the trade-offs of marriage and children she had to make in order to pursue meaningful work experiences. Skeel went against the grain of prevailing social attitudes and institutional barriers in the 1950s that restricted access of women to graduate education and professional aspirations.

The second theme that emerged was *Mother-Lust Satisfaction: Network Supports for Emergent Social Studies Scholars*. Skeel transcended traditional educational boundaries to form long term personal and professional relationships with younger female graduate students and colleagues. This older-younger female dynamic is significant in understanding the professional development of women because a more stable group can be formed when they are not in competition with each other (Diamond, 1996). Her ability to carve a path in academia, despite the barriers provided an important roadmap for the newcomers. Nationally prominent scholars such as Anna Ochoa and Carole Hahn were a few that benefitted from this network.

A third theme, *Walking the Fine Line in Academe: Balancing Acts*, characterized the multiple strategies of care, challenge, and negotiation she skillfully used when faced with institutional and gender barriers.

Suggestions for Further Research

The findings of this study may have implications for further research in the use of biography to study the professional career development of teacher educators, preservice and inservice teachers. Of particular importance is the continued examination of aspects that support the practice of women.

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SCHOOL-TO-HOME COMMUNICATIONS AS AUTHENTIC MATERIALS FOR LITERACY INSTRUCTION: A PRELIMINARY STUDY

Lilian H. Hill

University of Southern Mississippi

Thelma J. Roberson

University of Southern Mississippi

ABSTRACT

It is known that parental involvement has a positive effect on student achievement. It is also well known that a significant number of adults struggle with reading to the degree that they have difficulty with the tasks of adult life. It is questionable how well school-to-home communications communicate with low literate parents. Therefore, this preliminary study examined the readability of school-to-home communications. The researchers contacted former and current graduate students and invited them to share written communications that their school sent to parents; 37 communications were collected. The documents we examined were written with long sentences and polysyllabic words, and results indicate that the reading level exceeded that of many adults. Home-school communications written at higher reading levels disadvantage low literate parents. Future research will attempt to match parent literacy and school-to-parent communications to better understand the mismatch existing between parents' reading ability and the school communications sent to them.

INTRODUCTION

The National Council of Family Literacy (2007) indicates that family literacy is an "intergenerational approach based on the indisputable evidence that low literacy is an unfortunate and debilitating family tradition. Parents who are not literate tend to have children who struggle academically and who often do not achieve literacy proficiency in adulthood" (National Council of Family Literacy, ¶ 1). In a NCSALL document addressing the creation of authentic materials for adult literacy instruction, Jacobson, Degener, & Purcell-Gates (2003) make specific mention of parents desiring to improve reading proficiency in order to read communications from their children's schools as a motivation for learning literacy. However, it is questionable how intelligible school-produced documents are for children's parents who have varying levels of reading proficiency.

This study investigates the readability of written communications sent to parents by their children's schools. These communications exist in the form of letters and newsletters and contain important information about school activities and student achievement. Student achievement has become of central concern in this day of the *No Child Left Behind Act* (Henderson, 2002) and parent involvement is considered essential to student achievement. However, if parents are unable to read and interpret these school-to-home communications they may not participate in their children's education in the way that school personnel hope. While several studies were located that examined parents' educational level in regards to parent involvement and school communications (Ames, DeStefano, Watkins & Sheidon, 1995; Kauffman, Perry, & Prentiss, 2001; Wilson, Pentecoste, & Nelms, 1983), only one study similar to this one could be found and that was published in 1988 (Mavrogenes).

Parent Involvement and Student Success

It has long been established that parent involvement is a key factor in a student's academic and social development. Henderson and Berla (1994), analyzing 66 parent involvement documents spanning nearly 25 years of research, concluded that, "The evidence is now beyond dispute. When schools work together with families to support learning, children tend to succeed not just in school, but throughout life" (p. 1). Regardless of socioeconomic status, students with involved parents/families earn better grades, enroll in more challenging courses, score higher on tests, attend school more regularly, have better social skills, fewer discipline problems, and are more likely to graduate high school and enroll in postsecondary institutions (Henderson and Mapp, 2002). Walberg (1984) analyzed over 2500 studies and found that the "home curriculum" had twice as large an effect on student achievement than socioeconomic status. Additionally, Snow et al. (1991) found that involvement in parent-school activities was the single most predicative variable for all literacy skills among of low SES students and student achievement improved when parents served as teachers, supporters, advocates, and decision-makers. Not only has

parent involvement been identified as the most accurate predictor of a student's overall achievement, but minimal communication between school and home has been found to have a negative impact on student performance (Burden, 1995). School-to-home communications can provide valuable information to parents about curriculum, learning expectations, student needs, school activities, child development, school policies and procedures, as well as planned academic, social and/or behavioral interventions. Because parent involvement is critical to student success, it is imperative that schools communicate clearly and effectively with parents on a regular basis (National Coalition for Parent Involvement in Education).

Prevalence of Low Literacy

Studies reveal that people of all ages, races, income, and education levels are challenged by low literacy (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). The National Literacy Act of 1991 defines literacy in the United States as "an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential" (Kutner, Greenberg, Yin, & Paulsen, 2006). The prevalence of inadequate literacy is well documented in the United States. The 1993 National Adult Literacy Survey interviewed 26,000 adults over the age of 16 years. It measured functional literacy on 3 scales: prose literacy, document literacy, and quantitative literacy. The study found that 40-44 million Americans were functionally illiterate and another 50 million had marginal literacy skills (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). Recently released results of the 2003 National Assessment of Adult Literacy indicate that the average quantitative literacy scores of adults increased only slightly between 1992 and 2003, while the average prose and document literacy did not change in a statistically significant way (Kutner, Greenberg & Baer, 2005). Similar lack of change was found in the Adult Literacy and Life Skills study in Canada (Raising the Score) in which 42% of the population was found to have literacy levels that are below those needed for success in today's society.

METHOD

We contacted former and current graduate students in an educational administration degree program and asked them to voluntarily supply examples of written correspondence the school that employed them sent to parents. IRB permission was obtained to conduct the study. School-to-parent communications included school or classroom newsletters or letters to parents, some of which were form letters. Each written communication was evaluated using the readability evaluation tools included in Microsoft Word. We received 37 school-to-parent communications. Nine were newsletters, and 26 were letters. Communications were received from Mississippi, several different states, and from Department of Defense Schools located in Germany and Spain in which English is the language of instruction. Five were written to parents of elementary school children, 7 for middle schools, 21 for high schools, and 2 were unspecified. Of the 9 newsletters, 6 were written by principals, 2 by teachers and 1 was unspecified. Of the 26 letters received, 3 were directed to individual recipients and 23 were directed to general recipients. Eleven were written by principals, 9 by counselors, 3 by teachers, and 3 were unspecified. Twenty originated in Mississippi, 1 in Washington, 1 in Georgia, 1 in North Carolina, 1 in Louisiana, 9 in Germany, and 1 in Spain.

ANALYSIS

Reading difficulty of text originates in several sources including sentence length, number of polysyllabic words, unfamiliar vocabulary and concepts, and page formatting. Two readability scales that are available in Microsoft Word 2003 were used to evaluate text readability. The Flesch Reading Ease score measures text difficulty (The Flesch Reading Ease Formula). For example, a score of 100 indicates text that is very easy to read. The average sentence length is 12 words or fewer, and there are no words of more than two syllables. A score of 65 is equivalent to plain English. The average sentence length is 15 to 20 words, and the average word has two syllables. At the other end of the scale, a score of 0 represents text that is extremely difficult to read. The average sentence length is 37 words, and the average word has more than two syllables. The second readability scale used was the Flesch Kincaid which presents its results as a grade level, however, the ratings available in Microsoft Word will not exceed grade 12 despite text difficulty that exceeds it (Flesch Kincaid Grade Level Readability Score). Other readability scales are available, but these two were chosen because of their ease of use. Readability scales, while useful, provide only a rough approximation of reading demand in that these statistics cannot evaluate 1) whether material is written clearly, 2) if the grammar is correct, 3) the complexity of ideas, 4) the accuracy and organization of information, 5) whether the material makes sense, 6) whether the vocabulary is appropriate for the audience, 7) if the material is culturally

sensitive, and 8) if the document is attractive and helps or hinders readability. In other words, human judgment can never be replaced.

Each unit of analysis within the school-to-parent communications had a minimum of 100 words in sentence format. Several items were excluded from analysis including items not written in sentence form, individuals' names, salutations, school names, drawings, illustrations, and charts, permission forms, vocabulary lists, event announcements, website URLs and email addresses, and acronyms that stood alone. Acronyms included as part of a sentence were included in the analysis. Word substitutions were used to establish some uniformity between the school-to-parent communications. For example, school names were replaced by the word 'school' so that a fair comparison of reading demand could be made between short and long school names.

RESULTS

The samples examined in this preliminary review were written with long sentences and polysyllabic words (See Table 1). Of the school-to-home communications materials we reviewed, the Flesch Kincaid Grade Level ranged from 5.9 to 12, and the mean was at the 8th grade level. At least 3 of 35 samples in the study were at or above a 12th grade reading level. Approximately half of the samples fell between "plain English" and "difficult to read" on the Flesch Reading Ease Scale, and very few approached a score considered "easy to read." The results of the 2003 National Assessment of Adult Literacy indicate that 14% of adults surveyed function at the Below Basic level, 29% at Basic, 44% at Intermediate, and 13% at Proficiency. In other words, 43% of adults can perform either "no more than the most simple and concrete literacy skills" (Below Basic level) or "simple and everyday literacy activities" (Basic level) (National Assessment of Adult Literacy). Home-school communications written at higher reading levels, with complex sentence structures, disadvantage parents who are low literate and often these disadvantages are realized by non-white, less affluent populations.

Table 1. *Results*

	N	Min	Max	Mean	Median	Mode	Standard Deviation
Average number of words/sentence	35	6.4	22.3	15.07	15.8	12.2	4.2
Flesch Kincaid Grade Level	35	5.9	12	8.82	8.8	8.0	1.32
Flesch Reading Ease score	35	43.6	76	58.13	57.8	64.2	78.11

DISCUSSION

A limitation of this study is that parent-to-school communications were considered in isolation from a consideration of the literacy of a parent group who had children attending a particular school. Future research will attempt to match parent literacy and school-to-parent communications from the same school(s) to gain a better idea of the mismatch that may exist between parents' reading ability and the school communications sent to them. Parental involvement has been linked to student achievement (Henderson, 2002), however, for that involvement to occur parents must be able to read and interpret the communications that are sent to them. School administrators that are unaware of the reading levels of parents in their district may be writing them letters and newsletters at a level that impedes parents' understanding of the information that teachers and administrators may be attempting to communicate.

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THE IMPACT OF ILLEGITIMACY ON THE FAMILY, THE SCHOOL SYSTEM, AND SOCIETY**Steve Robinson***University of North Carolina-Wilmington***Ocean Gildee***University of North Carolina-Wilmington***ABSTRACT**

For all the changes in fertility and mortality that Americans have experienced from the colonial period until today, there has been surprisingly little change in the structure of the family until the past fifty years. Until that point, the age of marriage changed from time-to-time but only a minority of women never married and births outside marriage were traditional well less than 10 percent of all births. For decades the “illegitimacy rate,” (a term which has now entered the realm of the politically incorrect), was colloquially understood to represent the percent of total births that were born to unmarried women. Thus defined, the trend in the illegitimacy rate over roughly the past five decades has been startling. Out-of-wedlock births comprised only 5.3% of total births in 1960 but today, illegitimate births are at 40 percent.

Decades of social science research have confirmed that there is a direct correlation between the incidence of illegitimacy, on the one hand, and the incidence of poverty, educational problems, prison confinement, and innumerable other social problems and pathologies, on the other hand. According to a study by the National Campaign to Prevent Teen and Unplanned Pregnancy, teen childbearing nationwide cost taxpayers \$9.1 billion in 2004, teens 17 and under account for \$8.6 billion of that total or an average of \$4,080 per teen mother annually. Unless the trend in the illegitimacy rate is reversed, social problems in the coming decades will certainly explode for the proportion of children born and reared without fathers today is an indicator that predicts the size of the underclass in the next generation.

SECOND LIFE®: WILL VIRTUAL WORLDS CONTINUE TO HAVE A FUTURE IN HIGHER EDUCATION?

David W. Letcher

The College of New Jersey

ABSTRACT

The primary purpose of this presentation will be to stimulate discussion about the future of Second Life (SL) in higher education. This paper briefly describes Second Life and minimum system requirements needed to run it on a PC. Sources of help for all users, both new and old, will be listed and described. Examples include an education blog, a general blog at blog.secondlife.com, the Second Life wiki, books, and solution providers with their support ecosystem. This paper will then describe some of the interesting uses of this virtual world in education. Experiences and concerns about the use of virtual worlds in higher education will finalize this presentation. Claims of enhanced experiential learning, practicing skills, exploring new ideas, simulation, will be examined. Can Second Life supplement a traditional classroom and/or enrich an existing curriculum? A short video will be shown that vividly shows how the virtual world is used in education. Education-related issues related to using Second Life will be listed. But, not all is as rosy as many people think. Criticism of using Second Life as a tool in education has surfaced. Sources of criticism will be cited and discussed.

INTRODUCTION

To quote from Secondlife.net: “Businesses, educational institutions, government departments, and nonprofits use the Second Life (SL) Grid platform to create public and private spaces for communication, collaboration, and training in the 3D online virtual world of Second Life®. Organizations such as IBM, Stanford University, NASA, and the American Cancer Society operate presences on the Second Life Grid that seamlessly integrate their virtual world activities with their real-world operations.”

According to SecondLifegrid.net, hundreds of leading universities and school systems use Second Life in their educational programs. This virtual world enables people from all around the world to be part of a virtual classroom environment. Simteach.com, a rich source, lists about 100 current institutions of higher education and around 2600 individual teachers using Second Life. An overview of Linden Lab’s educator program that aids educational organizations to develop and improve their “in-world” programs will be included in this paper.

As noted by Karine Joly (2007), a web editor for an east coast liberal arts college, in www.Universitybusiness.com, virtual worlds may wind up breathing new life into teaching, learning, and creative expression. A January 2007 report by the New Media Consortium (NMC) and the EDUCAUSE Learning Initiative (ELI) forecasts the wide use of virtual worlds in higher education by 2010.

BACKGROUND OF SECOND LIFE

SL, developed in 2003, requires significant computer resources. At minimum one needs cable or DSL, XP or Vista (for Windows), 800 MHz Pentium, or Athlon or better, 512 MB or more, 1024 by 768 pixels, and a video card such as NVidia GeForce 2. SL recommends that a user have much more capability than this.

The many sources of help include Wikipedia, Second Life from secondlife.com, blogs accessible from Secondlife.com and, of special significance to educators, Linden Lab’s new education blog. Not to be missed Second Life Educator’s List (SLED) is also accessible from SecondLife.com.

SL is primary among virtual worlds, but there are other worlds such as open source counterparts OpenSim, RealXtend, and OpenLife.

Even within SL there are subgroups such as the Second Life Educator’s List (SLED) with its 4,700 members. It was founded in October 2005 and aims to help newcomers adjust to Second Life. Real Life Education has 3500 members that ask questions, share information, and alert members of real-world and in-world events. CCInternational has 4,200 members and is dedicated to providing various certificates in such areas as scripting, building, etc., training seminars and college-level classes. Harrison (2009a)

How is SL used in education? The uses are many and varied to say the least! Build a campus to show visitors and to recruit students (Columbia College, Chicago 2007), teach a class or supplement a class, augment office hours, or hold real-time meetings with world-wide participants, etc.

Do you want to teach using SL? Paula Christopher (2009) has a short quiz to take first. One must begin with the four getting-started questions:

1. Have you created an avatar and have at least 1-3 months experience in Second Life?
2. What do you plan to do in Second Life, that is, what experiences, simulations, team projects do you have in mind?
3. Who will support your students using Second Life?
4. Have you secured an area for your class to meet and work?

Paula Christopher's site is a must-visit site for newbies. You'll find the following valuable resources:

1. General/Getting Started which cites a web-site for a SL beginner's guide.
2. Listservs
3. Research Papers
4. Books
5. Pedagogy
6. Glossary of terms

Attention must be directed now toward education-related issues when using Second Life. They include:

- a. Collaboration between students and instructors.

Will this issue replace or supplement the traditional office visit? Is this issue similar to the argument, proposed when PCs first made their debut in education, that a sub-population of students with minimal or no access to computer technology will be discriminated against? Will we require all students to have an avatar?

- b. Immersion work spaces.

Immersive Education is a combination of many things: interactive 3D graphics, commercial game and simulation technology, virtual reality, voice chat (Voice over IP/VoIP), Web cameras (webcams) and rich digital media with collaborative online course environments and classrooms. When class attendance is not possible, students have a sense of "being there", which in turn provides every participant with the ability to connect and communicate in a way that greatly enhances the learning experience. Unlike traditional computer-based learning systems, Immersive Education is designed to immerse and engage students in the same way that [today's](#) best video games grab and keep the attention of players. Immersive Education learning can be self-directed as well as collaborative group-based that can be delivered over the Internet or using fixed-media such as CD-ROM and DVD. Shorter mini-games and interactive lessons can be placed within larger course materials to further promote this type of experience. Immersive learning platforms include technologies such as The Education Grid, Project Wonderland, Second Life, Croquet and Cobalt, realXtend, Alice, Open Simulator (OpenSim), and augmented and mixed reality.

- c. Social interaction.

Teachers know that many college students are reluctant to participate in normal classroom discussions. Why is this so? It may result from years of passive listening to teachers' lectures. Perhaps this behavior can be changed if students participate in a virtual classroom in which they must communicate and negotiate with their peers. SL has the potential of building communities of faculty and students working together in a cooperative and helpful environment.

- d. Simulation.

Simulation has proven itself particularly in web-based learning. An examination of the wealth of java-based applets in current use in mathematics, statistics, and the other sciences like physics, chemistry, and biology shows overwhelming evidence of their use and effectiveness. This is now being witnessed in SL. An effective example of this is from Drexel University professor J. C. Bradely (2008).

- e. Constructivist learning.

SL lends itself to learning in context, gaining knowledge through meaningful activity, and acting in situations involving social interactions and negotiations. The very nature of SL forces the student to encounter problems and solve them either individually or by group activities.

- f. Adapting classroom norms to Second Life.

Students and teachers are not constrained by classroom walls and just one textbook, but they'll have to do things differently. Will students actually leave the traditional classroom? Will self-paced learning and

educational games, learning kiosks that contain blogs, presentations, and podcasts replace, augment, complement, or supplement the traditional classroom? Will students and faculty become distracted by the myriad features of SL? Will SL appear to be a play-time distraction?

g. Grading and evaluating students and faculty.

As one moves from traditional classrooms/learning to virtual world environments, the important question of student evaluation arises. Traditional evaluation of students is done through homework, quizzes, exams, projects, term papers, etc. How do we evaluate our students as they participate in learning by exploration, negotiation, self-study, and experimentation?

Evaluation of faculty by students is traditionally done by answering survey questions that are standardized for a department, a school, or an entire college. These forms do not contain questions relevant to teaching in a virtual world.

h. Screen-readable technologies and assistance for handicapped participants.

The SLED listserv has seen some teachers express concerns for hearing and visually impaired students, wondering how they can effectively use SL in their learning. Some have asked if anyone knows of any links to web sites that deal with handicapped issues.

Harvard Law School and Harvard Extension School began a pilot by jointly offering a class in Second Life. In this class, student groups developed an argument for presentation at a virtual court room with other students acting as the judges. (Lamb, 2006).

A University of Florida professor teaches an Aesthetic Computing class in SL. In the class, students use program code to create interactive objects in SL. The professor values SL for its "potential for collaboration, immersion, aesthetics, creativity, social interaction" (Science Daily, 2007).

Will SL be accepted by the larger population of teachers? Paula Simoes muses:

"The concept of Metaverse, the one unified virtual world platform as 3-D Internet is not something that everyone welcomes since many have their skills and status grow obsolete by such. Therefore, Metaverse will get mocked by some and ignored by others since it is not within what they esteem as their own reality. Their criticism will be directed toward Second Life whereas this technology presents itself foremostly in the course and direction of Metaverse. Change is inevitable and technological change even faster. Yes, we know that SL is not everything dreamed about but who honestly expects Rome to be built in a day? However, it will not take too long for the envisioned Metaverse to come to wholeness."

There are signs that some attempts to use SL for education have failed. Harrison (2009b) reports that ghost towns can be found. Furthermore,

"Just as many corporations have created presences in Second Life with the approach of 'if you build it, they will come,' some colleges and universities have done the same. One can go from one campus to the next and find empty campuses, no visitors, no representatives. Making it worse is that, despite the wealth of presentation tools provided in Second Life, one can visit some campuses and leave without a clue if they are actually using their presence in Second Life and, if so, how? With no contact name provided, asking questions is ... well ... out of the question. A visitor is likely to exit quickly, likely with a less-than-favorable impression of the institution."

Although this paper addresses using Second Life in higher education, it must be mentioned that there are those who have questioned its effective use in business. Krangel (2008) has claimed the "buzz is gone" with Second Life. He goes on to list and expound upon ways in which Linden Lab can make Second Life more fun and a better business:

"Build good newbie-oriented content, Acknowledge that Second Life's reputation is now a liability, radically simplify the user interface, Abandon the idea that Second Life is a business app."

That is to say that SL has a very big learning curve, needs to use hip advertising methods, make the SL user interface graceful and easy to use, and cure the many technical ills such as lag in response and server down time.

However, anyone interested in being positively influenced by what Second Life can be, should see the video entitled, "This is What Second Life Should be Like" by Bettina Tizzy (2009). It is a must-see web site that provides an inkling into what SL should be like and sometimes is. It is a beautiful video!

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THE APPLICATION OF BEST PRACTICES IN ONLINE EDUCATION TO SMALL SCHOOLS: ONE SIZES DOES NOT FIT ALL

Al S. Lovvorn
The Citadel

Michael M. Barth
The Citadel

R. Franklin Morris, Jr.
The Citadel

John E. Timmerman
The Citadel

ABSTRACT

Online learning options are being adopted by schools of all types and sizes, but the online education delivery literature has focused on “best practices” generated primarily through the experiences of larger schools that are on the leading edge of this practice. However, smaller schools are faced with a different set of challenges than these early movers, since they have more severely constrained resources. Among these resource constraints are personnel, money, infrastructure, and time; factors which limit the institution’s ability to adopt widely cited online best practices. This paper reviews literature on online course delivery, examines one school’s experience as a case-in-point, discusses the differing capabilities of large versus small institutions, and presents implications for small schools that wish to pursue online education.

INTRODUCTION

The online learning paradigm was first adopted by large institutions of higher learning, and those same schools continue to enjoy the highest student online learning enrollments (Allen & Seaman, 2008) of postsecondary educational institutions. Small colleges and universities, those with student populations under 3000 (as defined by the Sloan Consortium), have adopted online learning, but at a slower rate.

Changes in demographics and technology as well as the confluence of those two items in combination with rising tuition costs, national economic trends, competition for students and all the other driving forces of educational delivery result in smaller institutions realizing that the “question is not whether a school should pursue online education, but rather how it should strategically respond to this growing challenge” (Grandzol & Grandzol, 2006). As school administrators debate the need, desire, and feasibility of moving some courses online, many of those tasked with implementing the pilot programs respond by reviewing the “Best Practices” literature found in journals that report on the phenomena of online teaching and learning.

BEST PRACTICES LITERATURE REVIEW

The best practices literature provides many insights concerning how institutions move forward in their quests to establish a presence online (Abel, 2005; Burke, 2005; Hunt, 2005; Levy, 2003; McLean, 2006; Parker, 2003; Piña, 2008; Skopek & Schuhmann, 2008; Sunal, Sunal, Odell, & Sundberg, 2003).

A careful reading of the literature reveals an implicit assumption that best practices are more or less universal across institutions of differing sizes. On the other hand, the Sloan Consortium (Sloan-C) recognizes that different size schools have historically implemented online education at different times. In its annual report on online learning, schools are differentiated based on total school enrollments (Allen & Seaman, 2008). Yet, in its sixth annual report on the state of online education Sloan-C perpetuates the implicit assumption of best practices homogeneity across schools irrespective of size without testing its validity.

Levy (2003) noted six factors that every program looking to adopt an online course capability must address: (1) vision and plans, (2) curriculum, (3) staff training and support, (4) student services, (5) student support and training, and (6) copyright and intellectual property.

Abel (2005) identified five best practices to ensure that there was support by the faculty and that students were supported with the services necessary for successful online learning. These practices include: (1) faculty commitment to online teaching, (2) support of online technology and teacher preparation, (3) faculty commitment to one-on-one instructional design consultation, (4) institutional recognition of online faculty efforts, and (5) administrative reinforcement concerning the reasons for pursuing the new venture (Abel, 2005).

Grandzol and Grandzol's (2006) aggregation of notable online learning literature since 1997, noted a list of thirty-three best practices, but grouped the list into three over-arching sets of practices: (1) course design and delivery, (2) student services, and (3) administration

As online education has become not a question of "whether" but "how" an institution should implement online education, we examine how one small educational institution approached positioning itself online under the headings Administration, Course Delivery, and Measures of Success.

A SCHOOL OF BUSINESS PROTOTYPES ITS ONLINE COURSE DELIVERY

The school under consideration is a small public institution of higher learning, as defined by the Sloan Consortium, located in an urban environment. With an undergraduate student body of just over 10,000. Undergraduate life is structured and exclusively residential. The graduate program, on the other hand, is similar to most conventional institutions. There is a robust evening program that caters to working adults who are pursuing a Master's degree during non-working hours.

Reflecting the trend of business courses to be in high demand for online learning (Abel, 2005; Parker, 2003), in Fall 2007 the Provost tasked the Dean of the School of Business Administration to prototype an online course delivery system, before widespread adoption at the institution. Although there are scores of "best practices" models and recommendations for implementing such a program, the unique characteristics of the school rendered many of these recommendations problematic.

Administration

One of the first issues faced by the faculty in developing online programs was a relative lack of experience in online courses. In early spring 2008, the Dean invited an expert in online course delivery to speak to the faculty. The presentation to the School of Business Administration faculty generated awareness of potential software available and the software options for course delivery and interaction with students.

The presentation raised concerns among faculty about their own familiarity with the technology of online course delivery and the availability of tech support for both faculty and students when classes were underway. Professors who were scheduled to teach during the summer session were asked to volunteer and select the course(s) they would be willing to deliver online.

There was early discussion of how to reward the instructors for agreeing to prototype their courses online. Tenured and tenure-track faculty often do not perceive a reward system for teaching online and may, in fact, see disincentives. The push to "publish or perish" means that the additional time that must be devoted to developing and maintaining online courses, relative to face-to-face courses, discourages participation.

Course Delivery

Consistently, the best practices literature state that all materials should be online early—prior to classes beginning—in order for student familiarization, be organized clearly and meaningfully, and direct the students to desired outcomes (Chin & Williams, 2006; Grant & Thornton, 2007; Hensley, 2005; Picciano, 2002). Though operating on a compressed schedule, instructors did manage to have their courses fully developed and online when the classes went active at the beginning of summer. Due to the compressed timeline to bring the prototype courses online, much of the instructional material was presented in a manner similar to that done in a traditional classroom setting, such as through PowerPoint slide presentations, previously videotaped lectures, and videotaped white board demonstrations. Instructors commented that they would have liked more training on various software packages.

One of the best practices cited in the literature (Grandzol & Grandzol, 2006; Hutti, 2007) is the use of a single consistent software platform for all courses. The institution was in the process of transitioning to Blackboard, and while the majority of professors used the new Blackboard system, a small number of instructors delivered their courses using the legacy WebCT system because their instructional materials were already in place on that system.

Pedagogical issues arose for delivering courses online, especially with graduate students. Whereas “pedagogy” primarily aims to allow a student, typically pre-adult, to acquire prescribed subject matter, “andragogy” is focused on the needs of teaching adult learners who are self-directed and interested in problem-centric rather than content-specific learning (Chin & Williams, 2006; Huang, 2002).

Students, especially those in online classes, desire frequent and personalized feedback (Grant & Thornton, 2007; Hannay & Newvine, 2006; Hutti, 2007; Martin, 2008). The rapid, personalized response aspect of online learning proved challenging to faculty. As no release time was granted for those teaching online, nor were additional resources (i.e., graduate assistants) available to meet course feedback demands, high levels of interaction were difficult to maintain.

Measures of Success

Learning success for students is still being debated. Empirical research into student’s perception of course success goes beyond the basic scope of this investigation. However Grandzol and Grandzol (2006) have noted that many studies have concluded that there is no significant difference in students’ learning between traditional and online teaching. Although the sample size of online students for this institution was small for an empirical study, anecdotal evidence from the pilot project suggests that the experience was consistent with that reported in the best practices literature. At the graduate level, the students were serious about their studies, cooperative and engaged.

At the undergraduate level, student learning appeared more sporadic. Instructors reported that online discussion groups had too many instances of mechanical responses with no true breadth or depth of discussion. The instructors expended more time than anticipated attempting to generate thoughtful discussion among students and to discourage “lurkers”. Another issue that led to more limited success at the undergraduate level was the non-uniform degree of computer literacy among the student participants in the online courses.

The best practices literature consistently presents the successful online teacher as someone who is technologically capable, possesses a high-degree of self-motivation and organization, and is willing to adjust to a different teaching paradigm to engage students online as opposed to the traditional classroom presentation paradigm (Abel, 2005; Betts & Sikorski, 2008; Burke, 2005; Chin & Williams, 2006; Grandzol & Grandzol, 2006; Hartman et al., 2001; Levy, 2003; McLean, 2006; Moore, 2008; Parker, 2003; Savery, 2005; Shaw & Young, 2003). Because the development of the initial set of classes was essentially an experiment, instructors were chosen based on their willingness to engage in the new format rather than on any innate ability, successful experience, or unique traits that marked them as well-suited for the task. Little preparation was devoted to getting the instructors ready for teaching online; they were recruited based on their willingness to transfer their courses from one teaching paradigm to another.

The upfront development of courses and the day-to-day requirements to communicate with students made the courses much more time intensive than traditional classroom experiences, consistent with the best practices literature (Allen & Seaman, 2008; Burke, 2005; Grandzol & Grandzol, 2006; Grant & Thornton, 2007; Hutti, 2007). Although every instructor interviewed explicitly stated that they knew that the online courses would take more time, the actual time requirements of this method still surprised them.

DISCUSSION

The lessons learned by one school in reviewing best practices demonstrate the need for some leavening of the recipe for success. As noted earlier, best practices have been consistently reported from the earliest adopters of online instruction, and the early adopters have been the largest schools—either large state schools or large community college systems. Implementing online teaching best practices at small schools, whether state or private, entails recognition of constraints from which larger schools appear to be buffered to a greater degree.

Essentially, smaller universities are challenged as a result of severely constrained resources, among which are personnel, money, infrastructure, and time. These limited factors work against long-range planning, resource commitments, and systems in place to ensure comprehensive coverage of technological, training, and advisory needs. While the administration may be theoretically committed to developing an online program, the limited resources of the administration, tends to leave much of the responsibility to the instructors themselves. This gap can result in a fragmented program where faculty are marching toward the same goal, but the paths (technological and pedagogical) chosen are disparate. Different software platforms employed by instructors, because of personal familiarity and preferences, further exacerbates resource constraints since IT support is frequently thin. Thus, the responsibility of intensive instructor training can only be honored more in the breach than in practice. This leads to instructors electing to participate more on an opt-in basis because they have prior experience, technology skills, or a

unique desire to explore online instruction. Therefore, the selection of instructors for online teaching is not a proactive process, but rather a recruiting of whomever will teach. There is little preparation required to be an online instructor, just willingness.

Consistently, best practice literature notes that because of the increased demand of online involvement on the instructors' time, rewards must be structured in such a way as to promote participation (Abel, 2005; Burke, 2005; Perreault et al., 2002; Schrum & Benson, 2000; Shea, 2007). Again, resource constraints frequently limit administration's ability to reward faculty for engaging in the new venture. At the school examined, instructors' rewards were exclusively intrinsic. Small schools often must rely on the good will of the faculty, absent the ability to provide release time for developing an online course or additional financial remuneration.

Even though faculty were aware that time requirements for the online courses would be greater than that required of a traditionally delivered course, the instructors expressed surprise at the additional time commitment required in an online course. Without some release time, the faculty was challenged to achieve and maintain high levels of interaction with their online students. The best practice of providing regular, personalized contact and prompt feedback tests the personal resources of the faculty member who is the sole point of contact for the online course and is teaching other courses.

Finally, a small school must be clear in its strategy for going online. Without a focused online program that allows the school to retain students at risk from transferring/dropping out or reaching out to a populace not currently served by the small school, then the school faces the risk of cannibalizing its small on-campus classes by taking any student who will enroll in the online class. Large schools may be able to support multiple sections of both traditional and online classes of the same course. However, when only a few students at a small institution switch from a traditional course to an online course, the school may be unable to meet dictated student numbers for both classes.

RECOMMENDATIONS

Best practices, as reported in the online course delivery literature, are sound but aimed in an unfocused manner. The assumption that the school of 1000 students is able to replicate the practices of the school with greater than 25,000 students fails in practice. Resources and their constraints on the schools both drive and limit actions across all sizes of institutions. The school we observed found that going online was a successful endeavor worthy of continued exploration even as both expected and unexpected challenges arose. For the small school constrained by resources, the best practice literature does provide a well-blazed trail on which to commence planning the journey online; however, two lessons learned from one school's experience are critical to successful implementation and are not constrained by the schools resources, just by its own imagination.

First, small schools must recognize that time must be made available—unconstrained—to think, plan, and develop how the school, its administration and faculty, are going to implement this new-to-the-school teaching paradigm. A focus on understanding the best practices literature and how its recommendations will apply in view of the small school's own unique situation will ease subsequent issues when the inevitable crisis arises. Time invested before courses go online will reduce time required to resolve problems later.

Finally, small schools must know why they are going online. There must be a strategy developed that engages both administration and staff so that everyone understands how the online program benefits the small school and where the program is taking the school. Online courses cannot succeed as adjunct courses at a small school; the courses must be part of a broad and thought out expansion of the outreach of the school.

Best practices work, but they must be studied, evaluated, and tailored to the school and its resources. A small school that attempts to implement lessons previously learned by larger institutions, without a sufficient understanding of its own position and constraints, still has lessons to learn.

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USE OF A COMPUTERIZED CLASSROOM SIMULATION IN AN ONLINE UNDERGRADUATE SPECIAL EDUCATION COURSE

Amber McEnturff Ellison
University of North Texas

Rebekah McPherson
University of North Texas

Tandra Tyler-Wood
University of North Texas

ABSTRACT

SimSchool is an internet-based classroom simulation program with the potential to change the way pre-service teachers are trained. Any number of exceptionalities can be depicted within the simClassroom, including mental and physical disabilities, allowing users to practice teaching a diverse sample of students. The shortage of fully qualified special education teachers and the increase of online teacher education programs make research about simSchool's efficacy timely and critical. The primary purpose of the current study was to examine the impact of simSchool on undergraduate pre-service teachers' perceived teaching skills. Results indicate that simSchool's effectiveness is somewhat restricted to undergraduates who have low perceptions of their teaching skills prior to the intervention. Other results and future research directions are discussed. Overall, the results presented in this paper indicate that simSchool is an effective program for improving users' perceived preparation for teaching when used with a novice-level population.

INTRODUCTION

SimSchool is an internet-based classroom simulation program designed for use in training pre-service and in-service beginning teachers. Its many standard features include the ability to vary the number of students in the classroom and choose from a variety of preset classroom tasks. Additionally, the program allows users to create custom students and assignments. Any number of exceptionalities can be depicted within the simClassroom, including mental and physical disabilities, allowing users to practice teaching a diverse sample of students. Lesson plans and tasks can be just as diverse, providing simSchool users as much freedom and creativity as they will experience in the real classroom. Because pre-service teachers can practice with a much wider variety of students than they are likely to encounter during their internships in real classrooms, simSchool has the potential to provide a more thorough training experience.

Research about the efficacy of using simSchool to train pre-service teachers is important because it addresses the chronic shortage of highly qualified special education teachers. In the 2002/2003 school year, there was a 13.4% shortage of fully qualified special education teachers in the United States, representing a need for about 54,000 additional teachers (Boe, 2006). Federal legislation requiring schools to educate students with special needs in the "least restrictive environment" (IDEA, 2004) has led to an increase in the number of special needs students in general education classrooms, often with a special educator or paraprofessional present only parts of the day or not at all (Baker & Zigmond, 1995). Thus, the need to train regular educators how to teach increasingly diverse student populations is great. Teaching simulations show promise for preparing both special and regular educators for today's diverse classrooms.

With the increase in demand for special educators comes a rise in alternatives to traditional, university-based, face-to-face teacher preparation programs. In general, participants in online courses learn as much as or more than their face-to-face student counterparts (Meyer, 2002). Regardless of an online program's effectiveness, some researchers express concern about training *teachers* online (Benavides & Midobuche, 2004; Baines, 2006). However, a 2008 report from the Sloan Consortium indicates that 31% of over 2,500 institutions surveyed offer a fully-online program in education (Allen & Seaman, 2008). Online teacher preparation is an inescapable reality, and it is worthwhile to consider teacher training options like simSchool that can be conveniently delivered over the internet to ensure that pre-service teachers in distance education programs benefit as much as possible from their coursework.

Practice teaching simulations such as Cooks School District (<http://cook.wou.edu/>), Classroom SIMs (<http://www.classroomsim.com>), and simSchool (<http://www.simschool.org>) have been studied with teaching candidates and in-service teachers in the areas of instructional self efficacy, classroom management, locus of control, connecting teaching and learning, motivation, and the teacher work sample method (Girod & Girod 2006; 2008; Ferry & Kervin, 2007, Cheong & Kim, in press; Knezek, & Christensen, Wickstrom, & Hettler, 2008; Hettler, Knezek, Christensen, King, McPherson, Swain, Wickstrom, Tyler-Wood, & Gibson, 2008). There is, however, little published research on using a teaching simulation with future and current educators the areas of teacher preparation and training method.

Grounded in well-established theories of educational practice, simSchool synthesizes theoretical frameworks of instructional leadership, interpersonal psychology, and behaviorist teaching models into a computer simulation (Zibit & Gibson, 2005; Gibson, 2006; Gibson & Baek, in press). For example, the Five Factor model (McCrae & Costa, 1996) of psychology serves as the foundation of the student personality spectrum. A simplified sensory model with auditory, visual and kinesthetic perceptual preferences comprises the physical domain. A flexible array of factors suitable to each specific academic, intellectual or cognitive domain is used to represent salient factors for classroom teaching and learning (Gibson, 2007).

Peak, McPherson, Ellison, Knezek, Barrio, & Christensen (2009) demonstrated that simSchool is more effective for undergraduates than graduates, perhaps because graduates already have more training or even teaching experience that gave them the skills simSchool aims to provide. Peak et al. also found that simSchool users made gains where controls made none. This paper focuses on the undergraduate population and seeks to further define simSchool's target audience. To this end, the following research questions will be addressed:

Do undergraduate pre-service teachers feel better prepared for teaching after working in simSchool?

Do pre-existing attitudes influence the effectiveness of simSchool?

Another goal of the study is to increase pre-service teachers' awareness of the value of simulations and computer games so they can incorporate technology into their lesson plans. Thus, as a secondary focus, this paper seeks to answer the following question:

Do participants value simulations and computer games more after using simSchool?

METHOD

Participants

This project took place during the Fall, 2008 semester and used a nonequivalent comparison group quasi-experimental design. It utilized current student participants (n=65) in EDSP 3210, an online introductory course in special education required of all future teachers applying for certification in Texas. All six sections of EDSP 3210 offered in Fall, 2008 were randomly assigned to either control (two sections) or treatment (four sections) conditions. The method of instructional delivery was divided between the four EDSP 3210 treatment sections: two received face to face training (n=30 out of 38 possible participants) and two received online video tutorials (n=35). The remaining two EDSP 3210 courses served as contrast groups (n=25). All participants were given the option to replace a class assignment with the simSchool teaching simulation activities.

Instrument Validity and Reliability

The Teacher Preparation Survey (Knezek & Christensen, 2006), or TPS, was administered to all participants and controls as a pre and post intervention measure. The Teacher Preparation Survey contains three subscales, Instructional Self-Efficacy (ISE), Learning Locus of Control (LLC), and Teaching Skills (TchSk). Even though the participants in this study are pre-service teachers with presumably little or no teaching experience, their perceived efficacy and skill level is important to their confidence, which has been shown to improve teacher performance and retention (Giallo & Little, 2003; Darling-Hammond, Chung, & Frelow, 2002). Internal consistency reliability for the items composing Factor 1, Instructional Self-Efficacy, were found to be Alpha=.67. This is in the range of "minimally acceptable" according to guidelines provided by DeVellis (1991).

Internal consistency reliability for the items composing Factor 2, Learning Locus of Control, were found to be Alpha=.69. This is in the range of "minimally acceptable" according to guidelines provided by DeVellis (1991).

Internal consistency reliability for the items composing Factor 3, Teaching Skills, were found to be $\text{Alpha}=.94$. This is in the range of “very good” according to guidelines provided by DeVellis (1991). Respondents are asked to rate how prepared they feel to currently do each one on a scale of 1 to 6 ranging from “strongly disagree” to “strongly agree”.

A final item was added to the existing instrument that measures participants’ beliefs about the importance of computer games or simulations as a learning tool. Respondents used a scale of 1 to 5 ranging from “Not at all important” to “Very important”.

Procedure

Participants in the face to face training group had the option of attending one of any three simSchool two hour training sessions. The sessions were scheduled at various dates and times to accommodate for maximum participation and were facilitated by the same person, the simTrainer, to maintain instructional consistency. Participants were introduced to simSchool, created a simStudent with a disability, and performed multiple simulation sessions aimed at improving the simStudent’s learning graph.

During the simSchool introduction, participants learned how the player of the simulation (acting as the teacher) improved their use of teaching strategies through repeated cycles of analyzing student needs, making instructional decisions, and evaluating the impact of their actions on students’ learning in a simulated classroom. They were shown how students with various learning needs, ethnic backgrounds, and disabilities were represented within the simulated classroom and created a simStudent.

SimSchool’s “Create a Student” feature was used by participants to input academic, personality, and physical attributes into the system to “build” a student with a disability modeled after a student found in their textbook readings or a real-life pupil in their classroom. Recreating the diverse needs of learners is represented in simSchool by one academic dimension, five personality dimensions, and three physical dimensions. The participants “dialed in” the created student’s levels on the nine dimensions by moving sliders buttons back and forth on a horizontal number line. Participants ran multiple simulation sessions with the virtual student, making changes along the way based on prompt system feedback presented in a graph form (Hettler, Gibson, Christensen, & Zibit, 2008).

Participants in the video tutorial simSchool training group were emailed two Word documents. The first document supplied instructions for accessing the video tutorials on the simSchool website (<http://simschool.net/help/video/simVideo.htm>) and the second document explained how to submit their created simStudent simulation graph to their instructor. The video tutorials were screen capture videos created by the same simTrainer who led the face to face trainings. After participants watched two videos, a general introduction to simSchool and how to create a student, they practiced the tasks demonstrated within the videos and turned in their graphs. Both face to face groups and video tutorial groups completed the same learning activities in simSchool.

RESULTS

Teacher Preparation

A paired t-test revealed significant gains ($p<.001$) for pre-service teachers in Instructional Self-Efficacy, with an effect size of .68, and in Teaching Skills ($p=.03$), with an effect size of .47.

Pre-Existing Attitudes

The literature suggests that opinions about learning locus of control may be related to other teacher preparation outcomes, such as instructional self-efficacy (Darling-Hammond, Chung, & Frelow, 2002). A series of correlations between pre-assessment subscale scores and post-assessment subscale and gain scores were performed looking for such relationships in this dataset.

Subscale pre-scores were compared to subscale gain scores. Gain scores were calculated by subtracting the pre-score from the post-score, thus positive gain is indicated by a positive gain score. Pre-scores were found to have a significant, negative correlation with gain scores within each subscale, thus lower pre-scores were associated with greater amounts of gain. However, no relationships were found between subscales.

Value of Simulations & Computer Games

A paired-samples t-test for all respondents revealed that working in simSchool had no significant impact on the level at which users value simulations for K12 education. However, students who indicated that simulations were “Not at all important”, “A little important”, or “Somewhat important” for K-12 classrooms during the pre-assessment made significant gains ($p=.05$) with an effect size of -1.67 , where participants who responded “Important” or “Very important” made no significant gains.

DISCUSSION

Undergraduate simSchool users made significant gains in the ISE and TchSk subscales of the TPS. As a whole, working in simSchool helped pre-service teachers feel better prepared. Low pre-scores were associated with greater gains in each subscale, indicating that the TPS has a ceiling effect; simSchool was indeed effective for users who start at lower levels, but it was perhaps impossible for users who started at higher levels of perceived preparation to demonstrate significant gains. Likewise, users who valued simulations and computer games less before working in simSchool valued simulations significant more after working in simSchool, even though the overall result indicated there was no significant difference.

In conclusion, simSchool has been proven effective in increasing pre-service teachers’ perceived preparation for the classroom. The positive effects of perceived skill level include better student outcomes and higher rates of teacher retention (Evans & Tribble, 1986). The analyses in this paper demonstrate that simSchool is quite effective when used with a developmentally appropriate population, i.e., users with low perceptions of their teaching ability. That is not to say that users with more advanced teaching skills cannot benefit from simSchool, however the “Create a Student with a Disability” intervention designed for this study was not effective for students with a higher skill level. Spring 2009 data collection is currently underway which will yield more respondents and a greater amount of qualitative data for further analysis.

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WEBQUESTS: EXPOSING TEACHER CANDIDATES TO EFFECTIVE USE OF TECHNOLOGY IN ELEMENTARY CLASSROOMS

Sarah K. McMahan

University of Mississippi

Virginia J. Moore

University of Mississippi

Nichelle Boyd

University of Mississippi

ABSTRACT

This piece examines how preservice teacher candidates are planning, implementing, and evaluating effective uses of technology to construct meaning learning experiences for children in social studies. Through WebQuests the candidates are not only illuminating the importance of using technology in the classroom, but allowing children's authentic learning experiences by taking ownership of their own learning through construction of their WebQuests.

INTRODUCTION

Often, teachers hear and see the phrase "Use technology" from district administrators and in teacher evaluations. In fact, the term is overused and misunderstood by many teachers who simply check the appropriate boxes on their lesson plan or professional development plan verifying that "technology" was used in the classroom. This manner of checking boxes relegates the phrase of *technology integration* to meaning, in our own teacher discourse, that we use some type of technology – digital projectors, computer labs, wireless computer labs—in our daily instruction. Technology is often described as one of the resources used in our daily instruction instead of using technology to enhance learning, as administrators and evaluators intend it. The former suggests the purposes of technology use for preservice teacher candidates. Our goal is that they enhance student learning through the use of technology. The WebQuest concept can be a tool to meet this goal.

WebQuests have received attention since they were introduced (Dodge, 2005) as a new avenue to integrate inquiry oriented activities that use resources on the World Wide Web (WWW) into the classroom. WebQuests, however, offer much more than just an outlet to integrate technology into the classroom. WebQuests allow students a myriad of ways to engage with content while also making a connection to their own interests (Sunal & Haas, 2002). Lipscomb (2003) also emphasized that students "develop more meaningful ideas of the past if it is personalized" through the use of WebQuests (p.154). As a result of this integration of content with personal interests, students are able to construct new knowledge, not just comprehend information from the textbook—by creating their own WebQuest.

ADVANTAGES OF USING A WEBQUEST

There are many advantages to utilizing WebQuests, not only in elementary classrooms, but with teacher candidates in social studies methods courses as well. Our goal was to train elementary preservice teacher candidates on how to incorporate technology with content and implement their ideas into the classroom. This project was integrated into our social studies methods course assignments for various purposes. The first purpose was to illustrate for teacher candidates how to effectively use technology in their instruction with elementary students. We wanted them to see how they could utilize interactive websites with their students for various content areas. Additionally, candidates would construct WebQuest tasks and show their students how to actually complete them versus candidates creating a lot of paper and pencil worksheets for the students. Through completing WebQuest requirements, candidates observed how to engage students in positive use of the Internet.

Another purpose was to illustrate for candidates how easily they could integrate different content areas through this assignment as well as how they could utilize a plethora of Internet resources. We facilitated the teacher candidates on how to choose social studies concepts and/or topics that were included in the national social studies strands and state curriculum standards, and then how to build activities for at least two other content areas within their chosen concept or topic. Allowing teacher candidates to determine the value of particular information

available in websites provided them an opportunity to authentically explore and engage with “cultural pluralism” (Roe, Stoodt-Hill & Burns, 2007). According to Dodge (1997) when a WebQuest extends for a week or more, a learner has the opportunity to deeply investigate the topic and apply this knowledge “by creating something that others can respond to, on-line or off” (Dodge, 1997). By exploring and actively engaging in this project, teacher candidates perceived WebQuest as an important aspect of elementary student instruction, while mastering the technology themselves.

THE PROJECT

Once the candidates understood the assignment and were comfortable with the technology, they developed their own WebQuest within peer groups. With an educational web site in mind the candidates were ready to begin. The website included step-by-step tutorial instructions on how to create a WebQuest. In essence, the candidates followed a prescribed format to create pages of the WebQuest. The prescribed format included making a title page, introduction page, task process, evaluation page, conclusion pages, a teacher page and a place for publication to receive review from others on the Internet.

In order to further engage in the process, candidates were asked to choose a thematic topic and grade level. The criteria required that students included at least four of the thematic strands from the national social studies standards and also addressed the Mississippi Curriculum Frameworks for each content area addressed. Additionally, we encouraged students to choose age appropriate content that invited creativity and interest to the children. We also encouraged candidates to choose topics that had multiple layers and interpretations, and that could be seen from various perspectives. Our candidates expanded these ideas by considering what roles the students would play. We decided that three or four tasks/activities would be a good number for each WebQuest. Each group provided an engaging first statement that would set the stage for their WebQuest. We wanted to “hook” the students by including essential guiding questions around the topic and provide necessary background information to make each topic exciting.

The candidates were involved in searching for informative and interactive websites and locating at least two trade books to be used as resources. We required candidates to address multiculturalism and/or diversity within their WebQuest. In addition, animation, clip art, and sound were included to make the WebQuest attractive and interesting for students.

As teacher candidates completed these projects, each group member was responsible for presenting some aspect of the WebQuest. Concurrently, they were required to share at least three finished products from their WebQuest activities during their presentation to their peers during the social studies methods course. For example, the presidential election and the Olympics were such relevant topics of interest; many candidates wanted their students to be involved as much as possible.

The candidates were required to brainstorm topics and consider the goals and standards the WebQuest would address. We also required the students to consider the “Big Questions” they wanted the WebQuest to answer for the students. The WebQuest title Voting 101 asked the question, “Have you ever wondered how the President is elected?” This question led to the exploration of elections, voting, and the Electoral College. This specific WebQuest allowed the children to explore the voting process using literacy circles with specific roles for members of the circle. Next, the students went on virtual “Scavenger Web Hunt” to find pictures, keywords, symbols, and phrases to create a graffiti wall to display in the classroom. Then, the WebQuest required the children to discover information about the Electoral College and create a graph for each state. The candidates used applicable trade books that included: *So You Want to Be President* by Judith St. George, *Vote!* By Eileen Chistelow and *If I Ran for President* by Doreen Cronin to enhance the children’s learning.

In addition to these books the children ventured through several websites that included Teacher Scholastic, Weekly Reader, and PBS Kids. These websites were age appropriate and included a vast array of information suitable for elementary children. This visual and auditory component of learning was thrilling for children of this age because it included sound, pictures and movement. The children were able to construct knowledge, investigate, and represent what they had learned. The teacher candidate was able to weave the arts and technology into the curriculum for the children.

THE OUTCOMES

Through these stimulating WebQuest tasks, the students learned to acquire information and manipulate data by constructing new knowledge while participating in groups. The classroom teachers praised the teacher candidates' creativity and execution of the tasks. The experiences of planning lessons that incorporated technology with higher order thinking skills garnered positive reflections from the teacher candidates. One candidate stated, "The children found the activities and the use of technology exciting and challenging." This reinforced the learning experience for the teacher candidates who observed children fully engaged and following the WebQuest with exhilaration. By using technology to facilitate student learning, the candidates were in a position to become the facilitator. Teacher candidates were in a position to reflect on their teaching through observing how children learn in this unique setting using technology. Therefore, the candidates were expanding their repertoire of experiences they could offer to their future students.

This project has impacted not only how our preservice teacher candidates use of technology within their instruction, but has also impacted how they can use this lesson to engage children in authentic social studies lessons. Many teacher candidates stated, "Before creating their own WebQuests, they were afraid of computers and technology." Another teacher candidate responded, "I did not know how to use a computer except for typing a paper." By requiring this assignment in our elementary social studies methods course with preservice teacher candidates, we assisted many of our students in overcoming their fear of technology, while introducing them to a method of teaching that engages children in mind and hands-on learning. Therefore, the WebQuest is an excellent technology resource in the classroom for teachers and children. WebQuests allowed students to have a personal connection to their learning experiences. As a result of this project, some students were able to develop their own WebQuests in the social studies classroom. This provided them an opportunity to construct and take ownership of their learning. Essentially, WebQuests provided the students an opportunity to develop their thinking, reasoning, leadership, and communication skills through group participation and the use of technology. WebQuests connected students with their worlds—past, present, and future. Fundamentally, WebQuests, in combination with a comprehensive social studies curriculum, could be the defining element in providing a meaningful way to engage students in historical thinking and analysis.

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MAKING CONNECTIONS: EXAMINING THE IMPACT OF DIGITAL PORTFOLIOS IN TEACHER EDUCATION AT TWO-YEAR COLLEGE

Jean-Yves Plaisir

Borough of Manhattan Community College

ABSTRACT

This work-in-progress seeks to examine the impact of digital portfolios in a teacher education program at Borough of Manhattan Community College (BMCC), having drawn its theoretical framework from research studies on teaching portfolios by Shulman (1994), Lyons (1998), and Yancey (1996; 1992). The goal of the proposed study is to find out how BMCC/TED is meeting its goals and what it can do to improve pre-service teachers' work on e-portfolios. A Likert-type scale survey will be administered to a sample of approximately 600 students in 300-level and 400-level courses in order to assess the promotion of integrative learning strategies and student engagement through e-portfolio use in 4 key focus areas: (1) perceived connections between e-portfolios and course content; (2) usefulness of e-portfolios as a reflection tool; (3) ease of use of the current platform; and (4) perception of value of e-portfolios upon graduation. The results of this study will inform a broader learning community about the issues and triumphs of BMCC/TED's digital portfolio initiative in teacher education.

BACKGROUND

Portfolios, and more recently e-portfolios, have long been a part of teacher education programs that focus on authentic assessment at all levels of their curricula. In the fall of 2006, Early Childhood Education (ECE) majors began creating e-portfolios throughout 10 education courses within the Teacher Education Department at Borough of Manhattan Community College (BMCC); and, at present, there are some 1000 education majors who have initiated their digital teaching portfolios. These students are writing personal introductions, philosophy statements, education plans for themselves, and reflections on the NAEYC standards. In addition, they are reviewing one another's work as they are also getting feedback from their instructors. The way students use the digital portfolios in their capstone courses variably depends upon their professors. This study seeks to know how the ECE program is meeting its goals for implementing digital portfolios, and what it can do to improve its approach toward achieving these goals.

THEORETICAL FRAMEWORK

Teaching portfolios have progressively become the new credential in the field of teacher education. Student teachers, the rationale implies, will have to show to prospective employers how well they have met professional standards in their education curricula by compiling tangible examples of knowledge and skills (e.g., artifacts) in their teaching portfolios (Shulman, 1994; Lyons, 1998). Lyons (1998, p. 3) states, "The portfolio idea, carrying with it the notion of a document, a set of credentials of the authority of one's office, was to become a vehicle for a new professionalism." In the same vein, Shulman (1994, cited in Lyons p. 3) has defined a teaching portfolio as follows:

A teaching portfolio is the structured documentary history of a (carefully selected) set of coached or mentored accomplishments substantiated by samples of student work and fully realized only through reflective writing, deliberation, and serious conversation.

Similarly, Yancey (1992, p. 15) states, "One distinction between a storage folder and a portfolio is reflection." She also argues portfolios encourage dialogs and help to create learning communities. Yancey compares a digital portfolio to an art gallery:

Like a gallery, a digital portfolio has a central entry point, which for portfolios is typically called the portal. Like a gallery, the digital portfolio includes both text and image, using the one modality to explain and juxtapose the other. Like a gallery, the digital portfolio makes multiple contexts a part of the display, which means linking internally to the student's own work and linking externally to multiple worlds outside the student's purview to show multiple and complex relationships. (1996, pp. 91-2)

From the conceptual framework provided by Kathleen Yancey, Lee Shulman and Nona Lyons, it can be said that teacher portfolios fulfill three major functions: (1) documenting evidence about teaching and learning; (2) serving as a tool for reflections and self-assessment; and (3) concretizing the new teacher's credentials and professionalism. Lyons (1998, p. 4) further notes, "...the portfolio process can be a compelling personal experience, offering an opportunity to reflect on one's learning and to articulate just who is as a teacher." Her observation lends a theoretical lens to view both the vision and current efforts of BMCC/TED, which has been implementing teaching portfolios in its early childhood education programs since 2006.

METHODOLOGY

The proposed study will utilize a mixed-method approach to carry out a multi-phase investigation. The research methodology will include the following:

- The development and use of a Likert-type scale survey to assess the promotion of integrative learning strategies and student engagement through e-portfolio use.
 - *Sample:* 600 students who are enrolled in 300-level and 400-level courses;
 - *Key Focus Areas:* 1) perceived connections between e-portfolios and course content; 2) usefulness of e-portfolios as a reflection tool; 3) ease of use of the current platform; 4) perception of value of e-portfolios upon graduation;
- The development and use of a Likert-type scale survey to assess post-graduate usability;
 - *Sample:* 200 recent graduates who completed full-fledged e-portfolios in BMCC/TED early childhood program;
 - *Key Focus Areas:* 1) usefulness of e-portfolios at the senior college level, including information on transitioning content to different platforms and evidence for meeting senior college expectations for the first two years of portfolio development; and 2) perceived usefulness of e-portfolios in employment seeking situations;
- Interviews with colleagues at the senior college level to determine how they use transfer students' e-portfolios with the intention of beginning an ongoing conversations with BMCC/TED;
 - *Sample:* 5-7 Early Childhood faculty members who work in at least two CUNY senior colleges that TED students transfer to;
 - *Key Focus Areas:* 1) clarifying senior college expectations in regard to the first two years of portfolio development; 2) finding out how senior college faculty are making use of BMCC-created e-portfolios, if at all; and 3) seeking specific feedback in how to make the current BMCC/TED e-portfolio program more useful for the senior college level;
- Review of philosophy statements and reflective writing in the e-portfolios and of instructors' methods for teaching students about e-portfolio work;
 - *Sample:* 1) 200 students who are enrolled in a 100-level course (ECE 102) in the spring and those same students as they progress to the 200-level courses in the fall. 2) 4-5 instructors who teach those students in the ECE 102 courses;
 - *Key Focus Areas:* 1) investigating what the e-portfolios can demonstrate about student growth; 2) determining what seems to provoke thoughtful writing in the student teaching e-portfolios.

Data will be collected in four stages consistent with the four research areas described above. A four-point Likert-type scale survey will be administered to current and former student participants; and, this research instrument will be developed in both an electronic form as well as a hard copy. The surveys will be disseminated to student participants via emails or postal mail services with return receipts; and, a small incentive (e.g., a pen) to encourage participation in the study. Interviews will be conducted with college faculty participants who agree to be interviewed for the study. Any students enrolled in a course taught by the researcher at the time this research project is being carried out will not be eligible for participation.

ANALYSIS

The qualitative data collected will be analyzed in order to sort out emerging themes relating to all four major research foci delineated above. The services of an independent consultant (a professional statistician) will be retained in order to help analyze the validity of the quantitative data that will be culled from the four-point Likert-type scale surveys.

LIMITATIONS

The proposed research project is a small-scale study seeking to examine the impact of implementing digital portfolio in a teacher education program. It will attempt to utilize a survey in order to collect data from a sample of some 600 students on the one hand; and, it will also gather information from interviews with 5-7 college faculty members on the other hand. It is not going to be a longitudinal study involving a very large pool of participants; and, its results will be limited in that sense.

SUMMARY

Early Childhood Education majors at Borough of Manhattan Community College (BMCC) have been developing digital portfolios for more than two years. The time has now come for the Teacher Education Department at BMCC to start evaluating the impact of implementing this added credential in its early childhood program. The results of this study will help to shed light on the perceived value and usefulness of e-portfolios for supporting student teacher achievements, transfer articulations with four-year colleges, and portability and practicality in the workplace. Insights gained from this study will be shared with colleagues in BMCC/TED, and this information will also be available in the BMCC Library for students to access. Last but not least, this knowledge will be further disseminated to the wider teaching and learning community via scholarly conferences and refereed journals.

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THE FOUR DIMENSIONS OF LEADERSHIP: A MODEL FOR EFFECTIVE CHANGE

Reginald Leon Green
University of Memphis

ABSTRACT

This paper deals with leading change in educational organizations. The author examines four dimensions of leadership and describes how each dimension informs effective change in educational organizations. The four dimensions are: 1) understanding self and others; 2) understanding the complexities of organizational life; 3) building bridges through relationships, and 4) engaging in leadership best practices. This model is different because it facilitates a change process that involves everyone in the organization, ensuring that they understand the goals of the organization and contribute to their attainment every day.

INTRODUCTION

The standards, competencies, and accountability movement has redefined school leadership. The movement is permeating the field of Pre K-12 education, forging a connection between school leaders and student achievement. The fundamental principles underlying the movement are high expectations for all children and the accountability of individuals accepting responsibility for their education (Marzano, Waters, & McNulty, 2005; Riley, 2002).

Over the past several years, in an attempt to meet these new standards, competencies, and accountability measures, schools and school systems have experienced challenges that adversely affect the academic achievement of the students they serve. Among those challenges are: 1) using data to inform instructional change; 2) meeting the needs of a multi-cultural and special needs student population; 3) enhancing the interest of parents and the larger community in program offerings of schools in the system, and 4) addressing a wide variety of other issues (ISLLC Standards, 2008; NAESP, 2004).

As a result of those challenges, many schools and school systems are failing to meet state and/or national standards and are falling into corrective action status (Levine, 2005). Consequently, they are in search of a model to use in facilitating change that will remove them from corrective action or some other state or national sanction. One such model that has proven to be effective is "The Four Dimensions of Leadership: A Model for Effective Change." This paper details this two-year educational enhancement program model in three parts: 1) Purpose—an overview of the program objectives; 2) Process—a summary of the methods used to achieve the objectives, and 3) Outcomes—the benefits to be received by the school system and/or school.

THE MODEL

The Four Dimensions of Leadership: A Model for Effective Change divides school leadership into four dimensions, providing leaders of schools and school systems an opportunity to analyze and engage in leadership practices from four perspectives: (1) understanding self and others; (2) understanding the complexities of organizational life; (3) building bridges through relationships, and (4) engaging in leadership best practices. These four dimensions clearly outline the functions that school leaders must perform if they are to be effective in their role as instructional leaders (Green, 2010). The ultimate goal of the model is to assist school leaders in building leadership capacity. To that end, the creativity, skills, and potential of administrators, team leaders, faculty, and staff can be transformed into a shared commitment to meet and exceed established state standards in all academic areas.

UNDERSTANDING SELF AND OTHERS

The first dimension consists of a series of tone-setting activities that speak to the purpose of the model, its objectives, and the desired outcomes. In addition, school leaders have an opportunity to address the importance of understanding self and other individuals for the purpose of attaining the mission, vision, and goals of the school system and individual schools. They engage in activities that allow them to clarify their values, relate them to the culture of the school system or school in which they serve, and develop a working knowledge of how their behavior influences the behavior of others. The specific objectives of this dimension are: 1) to engage school leaders in reflective dialogue to assist them in clarifying their beliefs and values; 2) to assist school leaders in identifying

expectations and assumptions that guide their behavior; 3) to assist school leaders in understanding how their beliefs, values, and behaviors influence the development of the school's mission; 4) to assist school leaders in identifying their strengths and the strengths of their co-workers, and 5) to assist school leaders in identifying areas for professional enhancement.

UNDERSTANDING THE COMPLEXITY OF ORGANIZATIONAL LIFE

The second dimension is designed to enhance school leaders' knowledge of the culture and climate of the internal and external environments of the school system or the school they serve. In addition, participants develop an appreciation for the importance of school structure, make-up of the faculty, and the needs, expectations, and desires of individual faculty members. The specific objectives of this dimension are: 1) to develop an in-depth understanding of the culture, climate, and structure of the school system/school and the manner in which individuals interact within that structure; 2) to assist school leaders in developing an appreciation for the elements that make up an effective 21st century school organization; 3) to establish a compelling purpose and direction for the school system/school by aligning its current vision with areas that are out of compliance with state and/or national standards and characteristics of a professional learning community, and 4) to identify the critical factors that underpin the culture of the school system/school that are fostering discrepancies in the areas that fall below established standards.

BUILDING BRIDGES THROUGH RELATIONSHIPS

The third dimension is designed to enhance the relationship between and among school leaders and other stakeholders. The primary focus is on building relationships between and among principals and central office school leaders; principals and teachers; teachers and teachers; teachers and students; teachers and parents, and schools and their communities. From this dimension, school leaders develop an appreciation for the need to use relationships to connect the school system and schools with internal and external factors that affect school goal attainment. Strategies to use in this process are also provided. The specific objectives of this dimension are: 1) to deepen school leaders' understanding and appreciation of the importance of collaborative relationships in the attainment of personal and organizational goals; 2) to enhance effective mentoring practices throughout the school system, and 3) to enhance the connection between central office leaders and school-based leaders.

UNDERSTANDING BEST PRACTICES

The fourth dimension is designed to allow school leaders to employ best practices that will enable the school system/school to meet the needs of all students served. The primary focus of this dimension is the development of skills and attributes that are utilized by effective educators in practical situations that lead to instructional enhancement. Specific topics include: 1) Understanding the Culture of Schools; 2) Collecting Data to Design a School Profile; 3) Refining the School Improvement Plan; 4) Assessing the Progress of Students and the Effectiveness of School Programs, and 5) Subject Area Instructional Enhancement.

Additionally, theories, program activities, and strategies informing best practices are aligned with observed behaviors and practices ongoing in the school system and schools for inclusion in school improvement plans. They cover the areas of communication, decision making, change, and conflict management. The dimension concludes with a comprehensive review of the characteristics of a professional learning community. The specific objectives of this dimension are: 1) to develop a deeper understanding of best instructional practices utilized in effective Pre-K-12 schools; 2) to increase the opportunity for school leaders at all levels to use data to inform instructional change; 3) to identify practices that will work effectively in eliminating discrepancies in student achievement in the school system; 4) to identify strategies that can be used to implement these practices in the school system; 5) to assist central office administrators, principals, and individual faculty members in developing individual professional development plans; 6) to address teaching and learning needs of schools, especially to help low-achieving children meet challenging academic achievement standards; 7) to provide high quality sustained intensive professional development in order to build the capacity of central office and building administrators to improve teacher and principal quality. And 8) to enhance administrators' skills for developing and implementing processes to monitor and support teachers' use of research-based instructional strategies and practices.

THE IMPLEMENTATION PROCESS

The implementation process consists of three series of activities, one series for central office school leaders and one series for school-based leaders. Then, the two groups come together and participate in a third series of seminar sessions. During the work sessions with each group, the facilitators engage school leaders in program activities designed to remove the school system from corrective action status.

Central Office School Leaders

The implementation process begins with a discussion with central office school leaders, followed by a two-day workshop on leadership capacity building. The program activities that follow are a series of monthly seminars wherein central office leaders further develop an understanding of their roles and responsibilities relative to refining and implementing a system-wide improvement plan. Individual professional development plans are also designed during the seminars.

School-based Leadership

At the school level, the implementation process begins with an assessment of school-based leaders, followed by a two-day workshop wherein plans are crafted for the refinement of building-level school improvement plans and the monitoring of instruction through formative assessments. Using data for instructional improvement is the major focus of this component. Additionally, a process is identified for central office leaders to provide ongoing technical assistance and support to schools. Professional development needs at the school level are identified, and plans to meet those needs are developed and implemented with the assistance of central office school leaders. Session activities include: 1) engaging in collaborative dialogue around 21st century leadership best practices; 2) developing an understanding of assessment data; 3) engaging in collaborative dialogue concerning the importance of beliefs, values, and leadership skills; 4) engaging in discussions about standards for system level leaders: State Standards for School Leaders; Interstate School Leaders Licensure Standards; SREB Critical Success Factors; Thirteen Critical Success Factors, and Characteristics of Effective School Leadership Teams; 5) engaging in activities around student achievement data, administering assessments, analyzing data, and using the results to inform instructional practices, and 6) engaging in collaborative dialogue in order to establish instructional goals and priorities; exploring leadership and instructional best practices; establishing benchmarks and timeframes for goal attainment; identifying a change strategy; clarifying roles and responsibilities of central office school leaders, and establishing a plan of action for system-wide instructional improvement.

THE OUTCOMES

Through seminar activities, central office and school-based leaders acquire strategies to support them in developing a deeper understanding of how to utilize best teaching and learning practices to meet the challenges and demands faced at the system level and in individual schools. The measurable outcomes that support the success of this systematic process include: 1) enhanced leadership capacity; 2) focused professional development plans; 3) enhanced academic achievement for students; 4) a data team in each school; 5) a strong connection between central office administrators and building level leaders; 6) increased teacher, principal, and community satisfaction; 7) reduced discipline challenges; 8) a structure that enhances effective teaching and learning, and 9) increased student and teacher attendance. This educational enhancement model for change is designed to provide central office and school-based leaders, team leaders, faculty, and staff of a school system or school with tools and techniques to consider as they strive to work collaboratively with one another to enhance the academic achievement of all students. It is currently being implemented in three school districts and several schools in Western Tennessee. In each instance, case studies are being developed that contain data that will provide school leaders with an understanding of the knowledge, concepts, and relationships necessary to enhance effective teaching and learning in their school system and schools.

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EXAMINING THE STABILITY OF THE PSYCHOLOGICAL CONTRACT: A CONFIRMATORY FACTOR ANALYTIC APPROACH

W. Kevin Barksdale
Union University

ABSTRACT

The psychological contract relates to the social and economic exchange relationship between the employee and the organization (Argyris, 1960; Schein, 1965). Rousseau (1990) developed a new measure consisting of employee and employer obligations of the psychological contract. Robinson, Kraatz and Rousseau (1994) employed Rousseau's measures in a survey of graduating MBA students just prior to graduation and entry into their employing organizations and after two years of employment. They conducted item level t-tests of changes in employee perceptions of the psychological contract across two time periods. The purpose of this research was to extend the work of Robinson et al., by utilizing covariance structure analysis in order to assess the stability of the four subscales included in the measures of the psychological contract. Empirical analyses with LISREL indicated that three of the four subscales (perceived employee obligations) used to measure the psychological contract were relatively absent of significant beta and gamma changes.

INTRODUCTION

The relationship between employees and their organizations has often been described as an exchange relationship (Mowday, Porter, & Steers, 1982). Historically, there have been two types of exchange proposed in the literature, including economic and social exchange (Blau, 1964). Economic exchange focuses on explicit monetary exchanges (employee effort for merit pay), whereas social exchange tends to be more open-ended and based on trust (employee loyalty for job security). An important element of the exchange relationship is the sense of underlying obligation which may develop, particularly when the relationship is predominantly based on social exchange (Blau, 1964, Rousseau, 1989). Without a sense of obligation, there would be little basis for reciprocity unless formally required in the employment contract. Although some obligations in the employment relationship can be created via formal contracts, many employment obligations are not communicated explicitly (Shore & Tetrick, 1994). Rousseau (1990) developed a measure of the psychological contract which asks employees for perceptions of the organization's obligations to them (e.g., promotion, high pay) as well as their own obligations to the organization (e.g., working overtime, loyalty). As yet, limited research has been conducted utilizing this scale (Barksdale & Shore, 1993; Robinson et al., 1994). Thus, the purpose of this study was to examine the measurement stability of the employee and employer obligations scale.

Rousseau (1989) defined the psychological contract as referring to "an individual's beliefs regarding the terms and conditions of a reciprocal agreement between the focal person and another party" (p. 123). In this exchange, the organization agrees to do certain things for the employee, such as provide status, job security, and reasonable job requirements, while the employee reciprocates through hard work and reasonable attitudes toward the organization. It is the fulfillment of the agreement by one party that creates an obligation to the other party to reciprocate. The psychological contract (Argyris, 1960; Rousseau, 1989; Schein, 1965) incorporates elements of both economic and social exchange when describing the employment relationship. In their conceptual development of the psychological contract, Rousseau and her colleagues (Parks, 1992; Rousseau, 1989; Rousseau & Parks, 1993) drew on work by MacNeil (1985) to distinguish between two forms of the psychological contract, called transactional and relational obligations. They linked the former type of contract with economic exchange and the latter type of contract with social exchange. Transactional contracts tend to be of short and specific duration where the focus is on pecuniary benefits. Relational contracts are typically open-ended and long-term and may focus on both pecuniary and non-pecuniary benefits.

Several studies have examined the underlying factor structure of Rousseau's (1990) psychological contract scale (Barksdale & Shore, 1993; Robinson et al., 1994; Rousseau & Tijoriwala, 1998) but none have approached the stability of the measures across time. Robinson et al., provided evidence via exploratory factor analysis that the psychological contract measure represented four constructs; employee transactional and relational obligations, and employer transactional and relational obligations. Barksdale and Shore utilized confirmatory factor analysis to confirm the factor structure of the employee and employer obligations scales identified by Robinson et al. (1994). Although several items contained high levels of measurement error, they found the measures to reflect four

correlated factors. Of particular interest to researchers studying the psychological contract is how the employee forms perceptions underlying the psychological contract at organizational entry. Likewise, it is critical to understand how employees change their perceptions of the psychological contract given sufficient information once they have entered the organization. Robinson et al., (1994) collected data of initial employee perceptions of the psychological contract, and subsequent perceptions 2 years later.

The procedure followed by Robinson et al., (1994) to examine the changing psychological contract was to empirically test mean change in item scores from Time 1 to Time 2 with univariate t-tests. They noted their substantive interest was in the mean change in individual items composing the contract, as opposed to mean changes in the four subscales of the perceived obligations measures. Nine of 15 items were found to have significant changes across time periods. Their treatment of individual items assumed that each item in the psychological contract measures reflected an independent construct of interest. Given their substantial efforts to establish construct validity of Rousseau's (1990) measure via factor analysis, it seems reasonable to support their study with an assessment of the changes in the psychological contract at the subscale level of analysis. Thus, the purpose of this study was to examine the stability of measurement of the psychological contract through the use of LISREL VII covariance structure analysis which allows for an evaluation of measurement equivalence across different time periods or different groups. Recent research by Schaubroeck and Green (1987) and Vandenberg and Self (1993) have outlined in detail the processes of measurement equivalence. In particular, there are three types of changes in psychological measurement that are of interest. Alpha changes represent true change in mean level of a given construct from one time period to the next. Assessment of this change assumes a constantly calibrated instrument and a constant conceptual domain. Beta change occurs when the subjects conceptually recalibrate the anchors of the measurement instrument. In other words, a 5 (on a 5 point Likert scale) may come to represent a 4 in later administrations of the instrument. In this case, a change in the mean value of a measure from one time period to the next could conceivably be meaningless. Gamma change occurs when the subject re-conceptualizes the construct such that the construct measured at Time 2 is conceptually different than at Time 1. In this case, mean changes in the level of the construct are meaningless because the constructs being compared are different. Covariance structure analysis allows the researcher to assess the extent to which beta and gamma changes are present in a given instrument. When either of these changes is present, interpretation of alpha change (true change in mean levels) becomes impossible.

METHOD

The data for this study were the 96 MBA students in the Robinson et al., (1994) study. Briefly, Robinson et al., administered a survey containing the psychological contract measures to 260 MBA students upon graduation and entry into their first jobs. The second survey was administered two years after the initial survey. Of the two surveys, 96 subjects who had remained with the same employer were present in both samples and thus, the sample size for this study was 96. Employer obligations (what the employee feels the organization is obligated to provide the employee) has two subscales - transactional, measured by 3 items and relational obligations, measured by 4 items. Employee obligations (what the employee feels he or she is obligated to provide the organization) also has two subscales - transactional, measured by 5 items and relational measured by 3 items. The question stem for perceived employee obligations read: "To what extent do you feel obligated to give your organization the following?" The stem for perceived employer obligations read: "To what extent do you feel your organization is obligated to give you the following?" All responses for the psychological contract items were made with a 5 point Likert scale (1=not at all; 5=to a very large extent). Subscale reliability analysis was not provided by Robinson et al. The item level correlation matrix and standard deviations from the Robinson et al., (1994) study were used to develop input covariance matrices for all subsequent analyses in this study. The PC version of LISREL was used to analyze the factor structure of the employee and employer obligations measure. The goodness of fit of models was evaluated with several indices including the chi-square (χ^2) goodness of fit test, goodness of fit index (GFI), Tucker-Lewis index (TLI: Tucker & Lewis, 1973), normed fit index (NFI; Bentler & Bonett, 1980) adjusted by Bollen (1989).

The analyses proceeded in 4 steps. First, we conducted an analysis of the homogeneity of the covariance matrix for each subscale of the measures. For this analysis, the multi-sample feature of LISREL was utilized. This analysis requires a "stacked" input file with the first matrix being the Time 1 covariance matrix for items composing the measure of interest and the second matrix being the Time 2 covariance matrix. The hypothesis being tested is simply whether the covariance matrix from T1 and T2 are homogeneous ($\Sigma_1 = \Sigma_2$). Since beta changes (like alpha changes) assume a constant conceptual domain, the next step in the analysis was to assess the extent to which gamma changes were present in the data. The reason for this is that, strictly speaking, when gamma changes are

present, analyses should cease, because the measure in question has been reconstituted by the subjects to the point that interpretations of changes across time are meaningless. Gamma changes are assessed by testing whether or not the number of common factors is the same from one time period to the next. In this study, each subscale was a single factor, thus the models were estimated by specifying a single factor at each time period. A model was run in which the covariance matrix was composed of the measures within subscale, across time periods. The model specified two correlated factors with no remaining parameters constrained. A second test of gamma change is whether the factor covariances are equal. Given this study was dealing only with two time periods, the model only provides a single factor covariance (T1 to T2), thus this form of gamma change was not estimable. Given the absence of significant gamma changes, we sought to identify beta change in the last step in the analysis. Assessing beta change is done in two steps. The first step is conducted by specifying equal factor variances. This step was conducted by constraining the diagonal of PSI (Ψ) to be equal across factors. The second step is conducted by specifying equality constraints on the factor loadings in addition to factor variances. This step was conducted by additionally constraining the corresponding factor loadings to be equal. In a model where the subscale had three indicators this implies that λ_{y11} and λ_{y42} , λ_{y21} and λ_{y52} , λ_{y31} and λ_{y62} , respectively, were constrained to be equal.

RESULTS

The results indicate all three items in this subscale reflect significant change from T1 to T2. In addition, all three changed in the same direction, representing an increase in the employee's perception of the organization's transactional obligations. The test for equality of the covariance matrices suggested the lack of equality from T1 to T2 ($\chi^2=23.78[6]$; $p<.001$). Thus, the covariance among items has changed across measurement time periods. Model 1 reflects the extent to which gamma changes were found in the subscale. These results ($\chi^2[8]=9.26$; GFI=.969; NFI=.989; TLI=.971; $p<.321$) suggest the absence of significant gamma change, thus we can conclude that the single factor structure holds across time in this sample. Model 2 reflects the extent to which beta change occurred across time periods by constraining factor variances to be equal. The results ($\chi^2[9]=14.81$; GFI=.954; NFI=.952; TLI=.915; $p<.096$) suggest that the factor variances are indeed similar across time periods. Model 3 reflects the extent to which beta change occurred by further restricting the factor loadings to be equal across time periods. The results ($\chi^2[11]=15.70$; GFI=.952; NFI=.960; TLI=.944; $p<.153$) support the conclusion that no significant loss in model fit occurred by constraining the factor loadings. Thus, a general conclusion would be that the mean changes in the level of the employee's perception of employer transactional obligations can be interpreted as true change in the employer transactional obligations. The results of the item level alpha change for perceived employer relational obligations indicate only one of four items in this subscale reflect significant change from T1 to T2. In addition, three changed in the same direction, representing an increase in the employee's perception of the organization's relational obligations while a fourth (provision of development) reflected an increase. The LISREL analysis regarding equality of the covariance matrices suggested the lack of equality from T1 to T2 ($\chi^2=43.44[10]$; $p<.001$). Thus, the covariance among items has changed across measurement time periods. Model 1 reflects the extent to which gamma changes were found in the subscale. These results ($\chi^2[19]=69.20$; GFI=.850; NFI=.583; TLI=.336; $p<.000$) suggest the presence of significant gamma change, thus we can conclude that the single factor structure fails to hold across time in this sample. Further analysis is not necessary, but provided for purposes of this conference. Model 2 reflects the extent to which beta change occurred across time periods by constraining factor variances to be equal. The results ($\chi^2[20]=69.22$; GFI=.850; NFI=.588; TLI=.381; $p<.000$) suggest that the factor variances are also different across time periods. Model 3 reflects the extent to which beta change occurred by further restricting the factor loadings to be equal across time periods ($\chi^2[23]=69.83$; GFI=.848; NFI=.598; TLI=.488; $p<.000$). Thus, a general conclusion would be that while the mean changes in the level of the employee's perception of employer transactional obligations are not present, the construct has been sufficiently reconstituted by subjects to the point that interpretations are not possible.

DISCUSSION

When analyzed at the item level the perceived employer transactional obligations suggest significant change (increase) in mean level of this measure. As employees adjusted to their perspective organization, their perception of what the employer was obligated to provide increased significantly. The LISREL analysis was somewhat supportive of the absence of beta and gamma changes, although the covariance matrices from T1 to T2 changed significantly. As a whole, it appears that this measure was equivalent across time periods. The analysis of the perceived employer relational obligations suggested very different conclusions. While the univariate test of alpha change only found one item to significantly change in mean level, the LISREL analysis suggested that the gamma change was so prevalent in this measure that any change in mean level, or lack of change, would be without

interpretation. In contrast to the employer transactional and relational subscales, both the employee transactional and relational subscales appeared to exhibit properties implying measurement equivalence. The univariate tests for alpha change in employee transactional obligations found all but one item decreased significantly across time periods. The LISREL analysis, ignoring the low TLI and NFI values, suggested absence of significant beta and gamma changes. In general, the same was true for the employee relational obligations measures, although the incremental fit indices were satisfactorily large. A certain pattern in the results seemed to surface. Items in the employee obligations all reflected decrease in mean level across time. In contrast, items in the employer transactional obligations subscale increased while items in the employer relational subscale decreased. Likewise, the evidence for measurement equivalence was on the whole, more supportive of measurement equivalence for the employee transactional and relational obligations, whereas they were less supportive of employer obligations subscale equivalence. This pattern implies that what an employee perceives as their own obligations may be represent more stable obligations than what they perceive the organization is required to provide. From an organizational perspective, this finding is not too surprising. An employee's initial expectations of what the organization should be obligated to provide are based on limited information of what the work norms, values, and general work environment are like. In contrast, initial employee obligations are more likely to be based upon a more stable internal condition that is less likely to change, or at least, less likely to lose its form. That is, employees may change their sense of personal obligation. The relative equivalence of three of the four subscales across time periods is even more striking when one considers the fact that the subjects for this study came from different organizations. This could have in fact, contributed to the lack of equivalence found in the employer relational obligations subscale, as well as the concerns regarding equivalence of the employer transactional subscale.

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BUSINESS STUDENTS' PERCEPTION OF WEB 2.0 TO AID COLLABORATIVE LEARNING

Matthew Kutch
Elon University

Nasim Lari
North Carolina State University

ABSTRACT

Web 2.0 technology is comprised of a number of on-line interactive tools that allow users to read, write, and edit web content. Examples of this “web-as-participation” technology include blogs, podcasts, multimedia sharing sites, social bookmarking, social networking, and wikis. The constructionist nature of many web 2.0 technologies presents a tremendous opportunity for business students to develop skills related to creating and editing discipline-specific language in a collaborative manner. After a brief discussion of the appropriate use of web 2.0 technologies for learning different levels of knowledge, this paper presents a survey and results specific to business students and web 2.0. In particular, the issues addressed are: 1) What are students’ level of familiarity and comfort with web 2.0 prior to class use? 2) What are students’ perceived effects of the use of web 2.0 for collaborative learning?

INTRODUCTION

Web 2.0 technology comprises a variety of interactive tools. A significant characteristic of web 2.0 is the ability for users to read, write, and edit web content in a way that promotes collaboration, contribution, and community (Anderson, 2007). Common forms of web 2.0 technologies are blogs, e-mails, Google Docs, instant messaging, podcasts, social bookmarking, social networking, virtual world, or wikis. Following a brief description of web 2.0 technologies that could be integrated into a course, the results of a survey to assess comfort and familiarity with, and impact of web 2.0 technologies on a Business Economics course are presented.

WEB 2.0 TECHNOLOGY

In keeping with the spirit of collaborative work and open-source documents, the following descriptions of web 2.0 technologies are from <http://www.Wikipedia.com>, one of the most widely known forms of web 2.0 technology.

A blog is website, usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. The ability for readers to leave comments in an interactive format is an important part of many blogs (“Blogs”, 2009).

Google Docs are a collaborative tool that consists of free, Web-based word processor, spreadsheet, presentation, and form application offered by Google. It allows users to create and edit documents online while collaborating in real-time with other users (“Google Docs”, 2009).

Instant Messaging is a technology that creates the possibility of real-time text-based communication between two or more participants over the Internet or some form of internal network/intranet (“Instant Messaging”, 2009).

A podcast is a series of audio or video digital media files, which are distributed over the Internet by syndicated download, through Web feeds, to portable media players and personal computers (“Podcasts”, 2009).

Social Bookmarking is a method for Internet users to store, organize, search, and manage bookmarks of web pages on the Internet with the help of metadata. In a social bookmarking system, users save links to web pages that they want to remember and/or share. These bookmarks are usually public, and can be saved privately, shared only with specified people or groups, shared only inside certain networks, or another combination of public and private domains (“Social Bookmarking”, 2009).

Social Networking is an online community of people who share interests and/or activities, or who are interested in exploring the interests and activities of others. Most social network services are web based and provide a variety of ways for users to interact, such as e-mail and instant messaging services (“Social Networking Services”, 2009).

A Virtual World is a computer-based simulated environment intended for its users to inhabit and interact via avatars. These avatars are usually depicted as textual, two-dimensional, or three-dimensional graphical representations, although other forms are possible (auditory and touch sensations for example). Some, but not all, virtual worlds allow for multiple users ("Virtual World", 2009).

Wikis are a page or collection of web pages designed to enable anyone who accesses it to contribute or modify content, using a simplified markup language ("Wikis", 2009).

METHOD

The study design was a mix of closed-ended questions on a seven-point Likert scale and an open-ended question to assess business student comfort and familiarity web 2.0 technology and to investigate if the use of these technologies increases instructor-student or student-student interaction or improve learning.

Participants

The participants were 70 students from three sections of *Business Economics* (ECO 301) at Elon University in the spring of 2009. This upper-level course is part of the required curriculum for the Bachelor of Arts in Business Administration degree. The study participation rate was 100%. There is no statistically significant difference between the sections in terms of class composition.

Instruments

To assess comfort and familiarity with web 2.0 technology a nine-item survey was created by the researchers. To assess the impact of web 2.0 technologies on instructor-student and student-student interaction, a modified version of the Blogfolio Experience Survey was used (Yuen & Yang, 2008). This modified survey consisted of nine items to gauge interaction in-class and on-line between the instructor and students and among students and well as ten items to gauge the impact of collaborative tools on interaction and learning. The survey used a seven-point Likert scale with 1 representing "strongly disagree" and 7 representing "strongly agree". An open-ended question asking for any additional comments or suggested improvements in implementing web 2.0 technology concluded the survey.

Procedure

During the first week of the semester, the instructor randomly assigned each student to one of four groups. The instructor created an initial word processing Google Doc for each group to create their "team name". This ensured that all students in the class were competent in accessing and editing a Google Doc.

Subsequent Google Docs were created for each group to create a collaborative set of lecture notes. A small bonus was given every two weeks to contributing members of the group with the best set of good lecture notes. The contribution rates at the six-week mark was 14%

While the *contribution* rate may seem low, recognize that it represents the number of students that edited part of the Google Doc. This information is easily available through the revision history function in Google Docs. Number of students that view, but do not edit, the Google Doc is not available, though anecdotal evidence suggests this would represent a higher proportion of students.

A Google Doc was created for each section of *Business Economics* for the answer key to review questions for the first exam. The review questions consisted of both mathematical method-based problems and concept questions that asked for explanations using the discipline-specific language discussed in class. The contribution rate was 24%. However, anecdotal evidence would suggest that a majority of students viewed, but did not contribute, to the review questions answer key.

An important consideration is quality control. Given the open-source nature of Google Docs, it is possible that students include incorrect information to the Google Docs. The instructor can highlight incorrect information (rather than deleting it), which allows a back-and-forth refinement of discipline-specific language by contributing students.

The week after the first exam, students were asked to voluntarily complete the survey. To reduce concerns of coercion, the surveys were administered by an uninterested third party in the absence of the researchers. Anonymity of participants was maintained.

RESULTS

The assessment of student comfort with different web 2.0 technologies is presented in Table 1. Not surprisingly, E-mail and instant messaging have the highest level of student comfort. With the advent of push e-mail, text messaging, and instant messaging bundled together in smartphones, the distinction between these technologies is becoming more nebulous. Longer E-mails to communicate logistical information may be discarded if students use smartphones as their primary medium for accessing E-mail. This is endemic of a larger, cultural shift in speed of transferring information. Even President Barack Obama fought to keep his BlackBerry during his administration (Harvey, 2009).

Surprisingly, only 48% of students agreed they were comfortable with Wikis. Anecdotal evidence strongly suggest that students answered this question with the perspective of comfort with contributing to Wikis, rather than simply comfort with accessing (viewing) Wikis.

There was not a statistically significant difference across the three sections in terms of comfort.

Table 1. *Comfort with Web 2.0 Technologies prior to Business Economics.*

	Collapsed Distribution of 7-Point Likert Scale		
	Disagree	Neutral	Agree
Blogs	31.43	22.86	45.71
E-mail	0.00	0.00	100.00
Google Docs	40.00	17.14	42.86
Instant Messaging	0.00	5.71	94.29
Podcasts	44.29	18.57	37.15
Social Bookmarking	51.43	15.71	32.86
Social Networking	14.29	10.00	75.72
Virtual World	52.86	25.71	21.42
Wikis	36.23	15.94	47.82

Table 2 presents the full 7-point Likert Scale distribution for the questions concerning Learner-to-Instructor and Learner-to-Learner interactions. While Learner-to-Instructor interaction is high (though better in the classroom than online), the Learner-to-Learner interaction is mixed. An insightful response to the open-ended questions summarizes this point: “[T]hese tools allow for interaction with information, but not so much interaction with people.”

Table 2. *Level of Interaction*

	Distribution on a 7-point Likert Scale						
	1	2	3	4	5	6	7
On-line interaction between the instructor and the class is high.	2.86	7.14	8.57	17.14	21.43	27.14	15.71
Classroom interaction between the instructor and the class is high.	0.00	1.43	7.14	7.14	30.00	28.57	25.71
There is little interaction between students.	11.43	24.29	10.00	15.71	30.00	5.71	2.86
The instructor seldom answers the student's questions.	64.29	25.71	5.71	2.86	0.00	1.43	0.00
Students seldom answer questions that the instructor asks.	35.71	35.71	12.86	10.00	4.29	1.43	0.00
The students often ask the instructor questions.	0.00	1.43	1.43	8.57	31.43	40.00	17.14
The students seldom ask each other questions.	7.14	20.00	11.43	22.86	14.29	14.29	10.00

Students seldom answer each other's questions.	11.43	20.00	14.29	24.29	20.00	4.29	5.71
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Table 3 presents the full 7-point Likert Scale distribution for the questions concerning outcomes. A significant component the *Business Economics* course is the ability to communicate concepts to a more general business-minded audience using the discipline-specific language correctly. A strong majority agrees that Google Docs help achieve this educational goal.

Table 3. *Aspects of Web 2.0*

	Distribution on a 7-point Likert Scale						
	1	2	3	4	5	6	7
Collaborative tools (like Google Docs) provide an opportunity to create and edit documents using the specific language of Business Economics.	1.43	10.00	8.57	14.29	27.14	24.29	14.29
Collaborative tools improve interaction.	2.86	7.14	2.86	15.71	37.14	22.86	11.43
Collaborative tools improve in-class interaction.	8.57	12.86	20.00	24.29	20.00	14.29	0.00
Using collaborative tools helped in discussion and communications with peers.	2.86	18.57	17.14	21.43	22.86	17.14	0.00
It is easy to post reflections, organize materials, and review information on the Google Doc.	4.29	7.14	12.86	15.71	24.29	21.43	14.29
Using web 2.0 was not as daunting a task as it may seem.	0.00	0.00	8.70	24.64	18.84	27.54	20.29
Creating a Google Doc was fun and rewarding experience.	12.86	17.14	15.71	27.14	10.00	12.86	4.29
Collaborative tools allow me to reflect on my learning, post information, and collaborate with others.	4.29	4.29	7.14	24.29	30.00	18.57	11.43
Google Docs combines the best of solitary reflection and social interaction.	5.71	14.29	12.86	28.57	24.29	10.00	4.29
I felt comfortable interacting with other participants during the development.	2.86	4.29	7.14	20.00	30.00	22.86	12.86

A statistically significant difference between the expected value of four of the items was observed between the three sections. The two sections that had a greater familiarity with web 2.0 technologies prior to the class reported statistically significant better Learner-to-Instructor interactions and experience with the some aspects of web 2.0 technology.

There is some evidence to suggest that familiarity and use is correlated with better outcomes of using web 2.0 technology. Student grades, aggregated by section, are higher in the sections that reported better Learner-to-Student interaction. This result, while statistically significant, could be influenced by some selection bias into the different sections. A more detailed analysis would track student familiarity and use of web 2.0 technologies with measureable learning outcomes.

While interaction is rated highly, there is no consensus of opinion as to the effectiveness in furthering learning outcomes. One response to the open-ended question highlights a possible source of the divergence of

opinion on this point: “Even though myself and one other person in my group have been the only ones to ever work on Google Docs, it has been rewarding for us.”

Table 4. *Significant Differences Between Sections.*

	Section 1 (n = 25)		Section 2 (n = 28)		Section 3 (n = 17)	
	MEAN	STD	MEAN	STD	MEAN	STD
The instructor seldom answers the student's questions.	2.00	1.26	1.32**	0.55	1.18**	0.39
Students seldom answer questions that the instructor asks.	2.64	1.52	1.89*	0.88	1.88	1.05
Collaborative tools (like Google Docs) provide an opportunity to create and edit documents using the specific language of Business Economics.	4.64	1.66	4.79	1.55	5.29**	1.45
Collaborative tools improve interaction.	4.64	1.66	4.79	1.45	5.53**	0.87

Note: * $p < 0.10$, ** $p < 0.05$

CONCLUSION

Web 2.0 technology comprises a variety of interactive tools that allow users to read, write, and edit web content. Instructors should be aware of student familiarity with these technologies—an initial level of confusion may intimidate some students from participating. Google Docs may best be used to help students develop skills at using discipline-specific skills. This paper lays out the some preliminary results from a survey of business students regarding their familiarity and perceptions of web 2.0 technology. Future research to tie specific technologies to measured classroom outcomes could help instructors develop more effective use of web innovations in the classroom.

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APPENDIX A

Selected comments from the open-ended question (full list available from authors upon request):

With Google Docs, you are unable to use formulas and can often miss information or have inadequate notes or assignments. This is the fault of Google, but is still applicable for economics classes.

If you want to create a forum for in-class and out-of-class discussion on course topics, there must be somewhere to go. Elasticity discussion won't be as riveting as a more practical or relevant topic.

It would be good for class study guides before tests.

Since Google Docs is used only for notes (which I already have), I feel the couple of bonus points is not worth the work and therefore I rarely use it.

It would be helpful to get a computer lab and class and walk students through Google Docs as a collective group.

Effectiveness of things like Google Docs often depends on what it's being used to complete.

Hard to use for technical math equations.

I have seen other people use Google Docs but I don't really understand it.

I've never used Google Docs. It confuses me.

This is a nice way to post information that needs to be edited by more than one person.

Even though myself and one other person in my group have been the only ones to ever work on Google Docs, it has been rewarding for us.

Google Docs are useful, but quickly become cluttered and difficult to read.

Google Docs does not support equations, which are kind of important in the language of business econ. I think these tools allow for interaction with information, but not so much interaction with people. Take that for what it's worth.

Maybe put more emphasis on the Google Docs in class so more people use it.

RETOOLING MASTER OF BUSINESS ADMINISTRATION EDUCATION IN A COMPETITIVE GLOBAL ENVIRONMENT: A CUSTOMER-FOCUSED APPROACH

Louis Osuji

Chicago State University

Zafar Bokhari

Chicago State University

Farhad Simyar

Chicago State University

ABSTRACT

The popularity and demand for master of business administration (MBA) education have assumed an all time high since the late 1990s. While a single factor cannot be ascribed to this phenomenon, the role of graduate management education in a nation's growth and productivity deserves mentioning and helps to explain the existence of over 4000 MBA programs world wide. To meet some of the challenges and pressure posed by this increase in demand, some European nations, universities with MBA programs, renowned business deans and corporate sponsors have come up with remedial measures and suggestions which in the long run would satisfy all the important stakeholders in the education industry.

INTRODUCTION

It is not surprising that graduate management education enjoys world wide popularity . Consequently over 4000 programs exist around the world and more are under consideration or about to be launched due to increase in the demand for business education. The literature is replete with the relevance and contribution of graduate management and business education to the overall growth and development of modern society. The impact of this is easily noticed in the productivity of nations as observed in per capita gross domestic product (GDP) of the Western European countries, US, Canada, Australia and Japan, just to mention few nations. Moreover, the global competitive business landscape appears to be fueling the need and demand for graduate management and business education in both developed and developing economies. To meet up with this challenge, some European nations have modified their universities. Known as the Bologna Accord and adopted by 40 European countries, the agreement is expected to "simplify degree qualifications and nomenclatures; offer more educational choice and mobility; and bring many more potential applicants into the graduate management pipeline." The pressure to tailor graduate management and business education to meet the ever increasing and challenging needs of individuals and the society becomes very apparent when according to Graduate Management News by 2010 more than 2.4 million students will graduate annually with bachelor's degrees. This influx of potential graduate program applicants according to the newsletter, will present a major opportunity for continental European graduate management education programs to give the market-dominating U.K. and U.S. programs a serious run for their money".

Without diminishing the import of the above statement, other considerations also come into play such as where the program is located and how many years such a program has been in existence. While opportunities for graduate business schools abound in high growth economies, what will happen to those business schools/programs located in mature economies? Hawawini (2005) says that in mature countries, management education has to evolve to satisfy a more complex environment where the demand by students and their employers are peculiar. According to him, "the implication is clear: in mature markets, business schools will either transform themselves to meet those demands or cede some of the terrain to alternative providers of business education"

Our paper seeks to identify the global trend and demographics of candidates of graduate management and business education. In particular we are interested in identifying the major drivers of enrollment in these schools. Put in another way, what do graduate business students look for before applying to a particular business program. The paper also identifies some problems that confront these business colleges and suggest remedial measures. Finally it is hoped that the paper will contribute to the literature on leading issues in global MBA education.

TYPES OF MBA AND OTHER MASTER'S PROGRAMS

Offerings in the MBA programs are as diverse as the institutions that provide them not only in North America, Europe, the Middle East, Asia, Australia, and Latin America but also the world over. In fact as said earlier, GMAC (2008) reports the existence of more than 4,000 graduate management programs around the world. Equally diverse are the employers, students, and other stakeholders. Wilson (2007) recognizes the existence of nearly 2,700 programs that use English as the medium of instruction at more than 350 institutions located in 35 countries. According to him, most of these programs never existed twenty years ago. MBA programs were formerly the traditional model that took 20 to 24 months to complete. Since then, variants of the program have emerged and they include Specialized MBA, Joint MBA, Cooperative Integrative MBA and Accelerated MBA, just to mention a few.

While some twenty years ago the norm was for universities to award a generalist MBA, that is now history because of changes in industry and demand. Some of the common forms of Master's degree include Master's in Public Administration or Master's in most sub-disciplines of business administration as Master's in Accounting, Taxation, Finance, Human Resource Management, Marketing or Information Systems. Others are Master's in E-Business, and International Business.

Master's degree involving other disciplines like health management, biotechnology, sports and recreation also exist and may be offered by some business schools. Included in the list are the emergence of weekend programs, evening programs, niche programs and customized programs. Yet other offerings to meet the demand side of executive master's program come from non-educational institutions that provide courses and certificates like IBM's "On Demand Business" and Business Consulting operations

New Programs

A lot of programs are emerging in partnership or collaboration with foreign institutions. For instance, The New York University Leonard N. Stern School of Business and the Swiss Finance Institute have created an executive MBA in banking and financial institutions management to be delivered in five modules in New York, Zurich and Singapore (Dean's Digest, 2008). The School (Stern) is also partnering with Amsterdam Institute of Finance on a global Executive Master of Science in Risk Management degree. Other new programs include a "Global Green" MBA concentration, the MBA in Socially Responsible Business of Brandeis International Business School, and the Moscow School of Management SKOLKOVO which has launched an executive MBA program.

INTERNATIONAL MBA PROGRAMS AND PARTNERSHIPS

International business education can be offered utilizing the import, export, and the network models. The import model aims at attracting students, faculty and staff from around the world to a particular university's college of business, while the export model consists of sending faculty and students abroad. In the export model, faculty deliver courses off-site but the institution's original campus remains central to the entire process as pointed out by Hawawini (2005). Some of these off-site courses are provided in rented facilities. The network model utilizes full-fledged multi-site campuses located in different regions of the world. The exchange program constitutes yet another format used by some business schools. Other nomenclatures used include cooperative educational "joint venture". One of the most successful cooperative efforts is the China European International Business School (CEIBS) established in 1994. Other trans-national arrangements including exchange programs exist between some developed and developing nations which go to elucidate how business education and business environment are becoming more global and more complex. This results in enormous pressure exerted on both business firms and business schools to adapt to the realities of the new situation by developing and training future business executives.

Corporate involvement in graduate management education has been observed in Goldman Sachs' 10,000 Women Project. It will be recalled that in March 2008, Goldman Sachs launched Women Initiative to provide business and management education to underserved women in Brazil, China, India, and the Philippines. Other academic and nonprofit partnerships with Goldman Sachs include the Said Business School at the University of Oxford and Zhejiang University in China, HEC Paris and Tsinghua SEM in China, INSEAD in France and Singapore, and Fundacao Getulio Vargas Escola de Administracao de Empresas de Sao Paulo in Brazil, to name just a few. This program is designed to support partnerships with universities and the development of organizations to provide women in underserved areas around the world with management skills through faculty training, innovative curricula and case studies that reflect local business conditions and environments.

CUSTOMERS OF MANAGEMENT EDUCATION

The quest by many people for graduate business education stems from the positive realization and acceptance of human capital and its subsequent development as a veritable source of competitive advantage in a global economy. However, the multiplicity and proliferation of graduate business schools and programs world wide calls for a careful analysis and evaluation of program benefits to individuals, employers, and those institutions offering the programs. Who are the customers, patrons, students, or consumers of graduate management education? According to the 2008 Survey Report of Graduate Management Admissions Council, Flexible MBA programs and traditional full-time programs reported the strongest application volume, while application volume for part-time MBA programs remained unchanged and a decline by 4% for EMBA programs. In this survey, women submitted almost two-thirds of the applications to part-time master's in accounting programs, but less than one-third of applications to full-time, or executive MBA programs. This trend notwithstanding, the EMBA programs are very popular in US and Canada due to heavy corporate involvement and the flexibility the program offers to the participants.

The other component in the demand for graduate business education consists of the corporate sponsors of executive education. As Bradshaw (2005) put it, "Gone are the days when non-degree programs involved a middle manager attending a week's program in marketing, say, and spending every evening schmoozing in the business school bar". What this means is an increase in the demand for customized programs (that is, those designed for one company). According to Bradshaw (2005) the market for executive education is growing, and corporations are developing stronger and deeper relationships with the business schools they patronize. He went on to report that out of 45 business schools that participated in customer survey in the past three years, the number of programs developed or taught for existing clients increased dramatically from 70 percent in 2003 to 79 per cent in 2005. This underlines the view of Marie Eiter, Executive Director for executive education at MIT's Sloan School that "Young people need to be developed for increasingly sophisticated jobs". According to Blair Sheppard, president of Duke Corporate Education, the size of customized programs is about \$34bn and today's players have scooped less than \$1bn of that". While that is the case, one cannot but agree with Ron Bendersky, associate director of executive education at the University of Michigan that "although custom programs are seen as future cash cow for business schools, there is still a lot of mileage in older style open enrollment programs". Substantiating this view is the open enrollment programs market that has grown in revenue by 10.5 per cent Bradshaw (2005).

GEOGRAPHIC DISTRIBUTION OF PATRONS

According to estimates by UNESCO, 1.7 million students worldwide were educated abroad in 2002 and this number is expected grow to 8 million by 2025. The implication of this is that countries that attract these students will undoubtedly have big advantage in the global talent hunt (Florida, 2004). Meanwhile, geographic distribution of potential students by GMAC is both interesting and informative. World Trend Report (2002-2006) by GMAC (2006) shows that 33.07% of Canadian citizens would like to study in US, compared to 43.00% by Western European citizens, and 71.78% by Eastern European citizens. Although European citizens are interested in studying in the US, many have become interested in studying closer at home. This explains the 5% loss in market share by United States in TY 2007 as shown in Table 1.

Table 1. Top 10 countries to which European citizens sent Score Reports from TY 2003 to TY 2007

Rank by scores sent in TY 2007	Scores sent in 2003	Scores sent in 2007	Gain/Loss in market share (in percentage)
1. United States	15,550	11,725	-5.44
2. United Kingdom	4,921	4,213	0.09
3. France	3,958	3,562	0.70
4. Greece	1,444	1,507	1.03
5. Spain	1,434	1,405	0.63
6. Netherlands	854	1,310	2.11
7. Switzerland	987	874	0.13
8. Canada	756	545	-0.35
9. Italy	440	524	N/A
10. Germany	500	523	0.35
Total Score Report sent	32,549	27,700	-

DETERMINANTS OF GRADUATE MANAGEMENT EDUCATION ENROLLMENT

While it is common practice for graduate schools to rely on GMAT and in some cases TOEFL scores for admission, it will be instructive to look at other hidden, but yet very potent determinant of where and what business schools to attend. One of these determinants is based on the value proposition- a derivative of social-exchange theory. Simply put, the value proposition states that an individual will pursue a course of action if that action has the potential to deliver a worthy reward (Marshall 1998). Education is said to depend on the value proposition for its perpetuity since an individual's action predicates the seeking of added value, whether intrinsic, systematic, or extrinsic (Mohn, 2003; Presno, 1998). According to the authors, intrinsic value in graduate business education is the success derived from completing a course of study which results in the individual's personal and intellectual growth and satisfaction. Extrinsic value is the success that comes from extra-educational endeavors related to completing a course of study, such as employment, while systematic value relates to the structural elements of the program, such as a school's culture. To the extent that the overall value of a graduate business degree remains high, the value proposition for business school will be positive.

The main drivers of graduate business school enrollment include fulfilling various students' expectations, and desire for self improvement or improve skills sets. Other aspects of a program to consider are admissions, program management, faculty, curriculum, and fellow students. Global MBA Graduate Survey Report, (2008) shows the following as the main drivers of graduate school programs: Meeting Expectations 21%, Curriculum 20%, Faculty 17%, Program management 15%, Admission 6%, and Career services 5%. From these figures it becomes very clear that meeting a student's expectations is the key driver of overall value, almost equally followed by quality of curriculum. The components of curriculum quality include relevance, comprehensiveness, and integration of the curriculum.

School culture also plays a very important role in the academic program. As Whipple and Moberg (2000) put it, "the relationship between a university and its students is becoming increasingly important, and a principal reflection of this relationship is in the school's culture." According to them, culture cannot fully be understood without a deep look at the way a student interprets an institution's culture. The main drivers of students' overall value of an institution's culture as contained in the survey are close-knit community, personal atmosphere, small class size, egalitarian professors, emphasis on critical discussion, active learning, and a rigorous program.

DEVELOPMENT OF FACULTY AND INFRASTRUCTURE

The enormity of meeting students' expectations and creating a positive environment is shared by many people. While the writers recognize a probable shift in pedagogy and teaching paradigm to include introduction of softer skills into the curriculum, the pressure on human and material resources at the institutional level becomes clear. The desire to build or strengthen an institution's reputation or school brand to secure some form of competitive advantage can not occur in the absence of highly qualified faculty and experienced and dedicated staff who make up the third side of the academic triangle, namely, students, faculty and staff.

For institutions starting a new MBA program, recruiting top faculty would be a major challenge particularly as very few students apply to embark on doctoral programs. Rather, many would prefer to stop at the MBA level since that is more attractive in the labor market. The situation is exacerbated by at least two other factors. The first is a high

percentage of Ph.D graduates who opt for career in industry, where benefits and compensation are much higher than in academia., not to mention dealing with the agony of promotion and tenure processes that have become the bane of the university system. The second is the retiring of baby boomers with doctoral degrees who have been teaching for many years. This trend is expected to increase in the next decade. We should also be reminded that besides the growing number of business schools here in US, business schools in other countries also attract and hire American trained faculty with doctoral degrees.

MARKETING IMPLICATIONS OF GRADUATE ADMISSION

Faced with global competition for the best students, institutions with graduate business programs need to position themselves around those aspects of their program offerings where they have some competitive advantage. Positioning here means the process of designing an image and value so that prospective students from any part of the globe would understand what that university stands for and can offer in relation to other institutions that offer the same graduate programs. Equally important is the fact that institutions need to build a strong brand and differentiate their program offerings. Hawawini (2005) advises that institutions build their brands through well orchestrated marketing and advertising campaigns. What this implies is that for business schools, the brand captured by the school's name and logo, allows it to distinguish itself from similar or competing schools in the minds of individuals and corporations who want to become consumers of that school's offerings in either regular or Executive MBA programs. It is a well-known fact that a strong brand helps consumers make rational decisions. Such is the case with consumers of graduate business education and how a strong university or institution brand can help them make their choice with regard to what school to attend. Business schools then have to develop a brand based on the school's situation and culture and come up with a communication strategy that would highlight the capability of such institutions to deliver to the customers, individuals and corporations alike. However, Douglas Ready, President of International Consortium for Executive Development Research (ICEDR), is of the opinion that brand is not the defining factor any more...companies are savvy. They don't just blindly go with Harvard because it's Harvard." What is important is that schools deliver what the client wants".

REMEDIAL MEASURES

While there is no quick fix in solving the problem of faculty shortage in graduate schools and programs due to some of the earlier mentioned reasons, convincing propositions have been advanced by many scholars. Faced with the pressure of high demand for business education and declining shortage of doctoral qualified faculty, some options like use of technology has been suggested.

The use and application of technology can provide a short-term solution since lectures can be delivered via the Internet and video-conferencing. This measure should not in any way make university administrators lose sight of the declining trend in the production of Ph.D- trained faculty. The earlier practice of hiring people with doctoral degrees in related areas such as statistics, mathematics, and the social sciences to teach in business schools should one more time be encouraged. Meanwhile as business schools get more competitive, some schools are hiring more part-time instructors from the private sector who have real live experience and MBA degrees to teach for them. Business schools should take seriously the advice of Arthur Kraft, dean of George L. Argos School of Business and Economics that "business schools know they must become more creative in not only attracting students but also faculty"

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ACCOUNTING INTERNSHIPS BENEFIT STUDENTS AND FIRMS

Lesley H. Davidson

Austin Peay State University

ABSTRACT

Accounting internships are an integral part of an accounting student's educational experience. Completing an internship provides a student with an invaluable experience that cannot be found within the confines of a classroom. Internships can be a great way for the student to find out if a particular facet of accounting is the right "fit" for his or her personality and they can often lead to full time employment opportunities. Firms also benefit by having "seasonal" workers during their busiest times. Many firms need additional help during particular times of the year, especially tax season. Interns can provide great assistance in the preparation and processing of tax returns and other staff level responsibilities.

SUMMARY IN BRIEF

Accounting internships are an integral part of an accounting student's educational experience. Completing an internship provides a student with an invaluable experience that cannot be found within the confines of a classroom.

At a recent meeting of the Austin Peay State University (APSU) Accounting Roundtable Advisory group, there was unanimous agreement that completing an internship is a vital part of a graduate's success. The APSU Accounting Roundtable Advisory group is made up of APSU accounting alumni, professors, administrators, CPAs and others from the accounting community. Sandra Long, CPA, senior manager at Kraft CPAs, Nashville, TN stated that "an internship provides invaluable opportunities for students to receive hands-on experience". Others from the accounting community, as well as APSU alumni and professors agreed.

Ms. Long knows firsthand about the invaluable aspects of the internship experience since she completed an internship in the Audit department at Kraft CPAs before returning to work in the Tax department. She is now the internship coordinator for the Tax department. The Tax department at Kraft CPAs hires interns each year to work from about January 15th through April 15th since this is by far the busiest time for the department. Kraft CPAs trains their interns to complete individual, corporate, and gift tax returns.

Employers also benefit from student internships in a variety of ways. One of the most important ways is that the employer has the opportunity to view the student in the work environment in order to evaluate the possibility of hiring the student for a full-time position after graduation. It provides the employer a chance to evaluate the student's work ethic as well as his or her accounting skills. It is not uncommon for a firm to offer a student a full-time position upon completion of his/her internship.

Firms also benefit by having "seasonal" workers during their busiest times. Many firms need additional help during particular times of the year, especially tax season. Interns can provide great assistance in the preparation and processing of tax returns and other staff level responsibilities.

According to the 2008 Tennessee Society of CPAs Guide to Accounting Firms in Tennessee, 100% of firms with forty or more staff members and at least five partners hire interns on a regular basis. Most of these firms also indicated that the internships that they offered were "paid" internships. This is a definite indicator that firms are seeing the benefits how hiring students for internships. The author believes that this is a trend throughout the U.S., not just in Tennessee.

It also seems that most firms view the offering of internships as a part of their responsibility to the accounting community and the field of accounting education. It is viewed as a measure of goodwill to take on the "training" of these students no matter who the student will be working for in the future.

Accounting students that choose to complete an internship are giving themselves a chance to really experience the work life of today's accountant. It can be an extremely hectic environment, especially during tax season. This gives the student's a real feel for the amount of time and stress that is common in the accounting profession. Internships can be a great way for the student to find out if a particular facet of accounting is the right "fit" for his or her personality and they can often lead to full time employment opportunities.

In addition students are eager to put the skills they have learned in the classroom to use. Students, whether they are completing a tax season internship, audit internship, bookkeeping internship or another type of accounting internship, they will most likely have the chance to work with various types of accounting software that they have not been previously exposed to at the university. Most universities offer courses relating to accounting software however, there are so many different types, there is no way that any school could expose its students to every type.

Students also have the opportunity to see what it is like to interact with others in a professional work environment- just learning office politics can be an education in and of itself. Even though many students work during college, this may be the first time that they are working in a true professional environment.

Many students have a positive experience as an intern. However, the reverse can also be true. A student may discover that he or she does not really enjoy a particular area of accounting as much as he/she was expecting. This realization may allow the student to contemplate working in other areas of accounting after graduation.

Most universities do not specifically require students to complete an internship, however it is strongly encouraged and many will give students credit hours for completing an internship. The author recommends that all universities at least consider making the completion of an internship a requirement for students in accounting. This practice has been in place for many years in the areas of education and nursing. Students majoring in education must complete student teaching and nursing students must complete clinical training. Accounting is another area where true "hands on" experience prior to graduation is of critical importance.

Internships can provide great benefit for students as well as firms. They are a great opportunity, providing many advantages to students that are willing to take the challenge. The enormous opportunity that internships can provide for employers is difficult to measure but certainly one of value.

PERFORMANCE OF TRANSFER STUDENTS VS. NATIVE STUDENTS IN UPPER DIVISION ACCOUNTING COURSES

Robin M. Wagner

San Francisco State University

Jiunn C. Huang

San Francisco State University

ABSTRACT

This study examines the differential performance between community college transfer students and non-transfer (native) students in upper division accounting courses at a state university. We conclude that transfer students perform significantly better than native students in the first intermediate accounting class. This result remains after controlling for student performance in the introductory financial accounting course. Furthermore, this difference in performance persists for higher level required and elective courses. We conclude that the primary cause for this difference is that the introductory accounting courses at the feeder community colleges are four semester unit courses while those at the state university are three semester unit courses. The results imply that students may improve their overall performance in upper division accounting classes by choosing to take their introductory classes at such community colleges. However, the results are limited to a particular set of universities and their feeder community colleges.

INTRODUCTION

The objective of this study is to investigate the difference, if any, in performance between community college transfer students and non-transfer ("native") students in upper division accounting courses. Although there are many studies that have examined the factors affecting student performance in accounting and, in particular, the first intermediate accounting course (See Eikner and Montondon (2001) for a discussion of these studies.), few recent studies have explicitly examined the difference, if any, between the performance of transfer students from junior or community colleges and that of native students.

LITERATURE REVIEW

Montondon and Eikner (1997) compared the performance of transfer students to that of native students in the first upper division course (Intermediate Accounting I.) The variables examined, in addition to transfer status, included a pretest consisting of twenty-two multiple choice questions, final grade in the class and self-reported data including the location and grade in the introductory financial accounting class, overall college GPA, attempted course load, number of hours employed on a weekly basis, age, race, and the grade the student expected to receive in the class. The average final grade of the transfer students was significantly higher than that of the native students. However, the study concluded that when the effects of race, pretest grades, college GPAs and grade expectations were included, the status of the student as a transfer or native student was not a significant factor in determining the course grade.

Laband, Rosenberg and Smith (1997) compared the performance, as measured by a student GPAs in upper division accounting classes, of transfer students to those of native students. The variables examined, in addition to transfer status, included the average grade in the introductory accounting principles classes, SAT scores, age, gender and where the student took their upper division accounting classes. When performance in the introductory classes was not controlled for, the study found significant effects for SAT scores, gender, race, and school at varying levels of significance but the transfer variable was not significant. When performance in the introductory classes was controlled for, the study found a significant negative effect for the transfer variable. The study concluded that the results imply that the introductory course grades assigned to transfer students were inflated relative to those of native students. Upon controlling for this inflation effect, the transfer variable became insignificant.

Other studies, while not explicitly focusing on transfer status as the primary factor affecting performance, have included it as a possible explanatory variable. In a study similar to their 1997 study, Eikner & Montondon (2001), in evaluating the factors associated with performance in Intermediate Accounting I, found that transfer status was not a significant factor in explaining performance. The factors examined were almost identical to their above-mentioned

study (Montondon & Eikner (1997)) that explicitly focused on transfer students, and included college GPA, pretest score, transfer status, grade in introductory accounting class, racial status, age, expected grade in the intermediate class, and course load. Their 2001 study concluded that only college GPA, course grade in the introductory accounting class and student age were significant factors and, as indicated above, that transfer status was not a significant factor in explaining performance.

In an attempt to determine predictors of the first exam and final grades in the first intermediate accounting course, Turner, Holmes, and Wiggins (1997) found that taking introductory accounting at a four-year university was positively associated with the final grade in the first intermediate accounting course. However, this study did not control for race or grade expectations, shown by Montondon and Eikner (1997) to be a covariates that explained the difference between the grades of transfer students versus native students. Nor did it control for (possibly) inflated grades of transfer students in the first introductory accounting class which Laband et al. (1997) concluded explained the perceived negative effect of transfer status on performance.

In general, no recent study, explicitly focusing on the relative performances of transfer students versus native students, has found transfer status to be a significant factor in performance in upper division accounting classes. Initial indications of a significant effect are ultimately concluded to be the result of demographic characteristics such as age and race, or variables that reflect prior academic performance.

It should be noted that the studies, including ours, that explicitly focus on transfer students' performances versus those of native students are not particularly well motivated. For example, Laband, et al. (1997) merely cites the existence of "some anecdotal evidence to suggest that transfer students who take their accounting principles courses at two-year colleges tend to perform somewhat worse in upper-level accounting classes as compared with students who take the principles courses at the four-year institution" (p. 515). Similarly, Montondon & Eikner (1997) state that "the perception exists, rightly or wrongly, that two-year college students are not as academically as strong as four-year university students" (p. 21). Our study is motivated by the opposite perceptions and anecdotal evidence: that for reasons that are unclear, transfer students perform "better" than native students in the upper division accounting courses at the university studied herein.

RESEARCH SETTING AND DATA COLLECTION

The university examined is a large urban state university (the "University") in California which graduates approximately 200 accounting majors every year and generally has 1,000 active accounting majors at any one time. Approximately 65% of its accounting majors are transfer students from a variety of local community colleges. The accounting program consists of three required courses, Intermediate Accounting I, Intermediate Accounting II and Cost Accounting, and four elective courses. Intermediate Accounting I is a prerequisite for both Intermediate Accounting II and Cost Accounting as well as for all the elective courses.

The data represent grades of accounting graduates from Spring Semester 2003 through Spring Semester 2008. Grades for each student for Intermediate Accounting I, Intermediate Accounting II, Cost Accounting, and each elective class were collected for 1,252 students. The grades for Intermediate Accounting II and Cost Accounting were averaged to form one data point to represent the performance in the remaining required courses. The average grade was also calculated for the elective classes of each student. After the initial data collection, 273 students were eliminated because they completed Intermediate Accounting I at a university other than the university being studied. An additional 108 students were eliminated because at least one of the introductory accounting classes was taken at the university and one was taken at a community college. We eliminated these students to protect contamination of the results. The remaining 871 students consisted of 306 native students and 565 transfer students.

The use of data from accounting graduates creates a possible bias since it only represents those students who successfully completed their degree. It excludes those students, native and transfer, who took Intermediate Accounting I but ultimately failed to graduate from the University. These students could have changed majors, dropped out of school or transferred to other schools. Despite the possible bias inherent in the use of only accounting graduates, we used this population in order to allow for the investigation of the persistence, if any, in differential performance between native and transfer students.

Test Results and Analysis

Table 1 presents the average grades of Intermediate Accounting I, the additional required courses, and the electives. Table 1 also provides the results of the two-tailed t tests performed to test for differences between the means of the average grades for native students versus transfer students.

Table 1.

Average Grades of Native and Transfer Students in Intermediate Accounting I, Required Courses and Electives

Statistic	Native Students	Transfer Students	t-
Intermediate Accounting I	2.593	2.728	-2.525**
Required Courses	2.532	2.733	-3.706**
Electives	2.720	2.827	
	-1.802*		

** Significant at 5%

* Significant at 10%

The null hypothesis of no difference between the average grade in Intermediate Accounting I between transfer students and native students is rejected. Transfer student performance in Intermediate Accounting I is significantly better than that of native students.

This result is inconsistent with those of studies that explicitly focused on transfer status. Montondon and Eikner (1997) provided (initial) similar results but concluded that the difference was not significant after race, pretest grades, college GPAs and grade expectations were taken into account. In our study, race is not a factor, at least as determined by Montondon and Eikner (1997). Their race variable considered only of African American and Hispanic students. Although extremely diverse, (Asian students represent approximately 65% of the accounting majors), less than 10% of the accounting majors at the University are African American or Hispanic students. With respect to the other variables, it's possible that ability-based factors such as pretest grade and college GPA affected the results. We address this concern later in the analysis.

Our result is also inconsistent with the initial Laband, et al. (1997) result of a negative transfer effect. It is also inconsistent with that study's conclusion that the initial result could be attributed to inflated grades for transfer students and that any transfer effect was not significant.

The null hypothesis of no difference between the average grade in the two additional required courses between transfer students and native students is also rejected. This means that the difference in performance persists beyond the first intermediate class. This is important as no other study has documented that the difference in performance persists longer than one semester. It is also important if the cause of the difference is a choice variable, unlike race or age, under the control of the student or university.

The null hypothesis of no difference between the average grade in elective courses between transfer students and native students is also rejected but at a lower confidence level. This is not particularly surprising as grade distributions and course difficulty vary considerably across the potential elective courses.

Further Analysis

Because the grade in the first introductory course has been shown to be a predictor of performance in the first intermediate accounting class (Eikner & Montondon (2001)), we collected the grades of the students in their first introductory financial accounting class which is a prerequisite for Intermediate Accounting I. Collecting grade data for the introductory accounting class significantly decreased the sample population. Grade data, in general, was not available for native students prior to Summer 2004. This eliminated 70 native students and the 116 time-related transfer students, resulting in a sample size of 236 native students and 449 transfer students. The grades of the native students were in electronic form. However, in order to gather the grades of the transfer students we had to physically access their paper graduation forms. Grade data was missing for 93 students, reducing the sample size to 236 native students and 356 transfer students.

We calculated the average grades in the Introductory Financial Accounting course and performed a two-tailed t test. The results are as indicated in Table 2.

Table 2.

Average Grades of Native and Transfer Students in Introductory Financial Accounting 1

	Native Students		Transfer Students
t-Statistic			
Introductory Financial Accounting	3.109	3.0478	1.267

The difference between the average grades in Introductory Financial Accounting for the native students and the transfer students is not significant and does not explain the difference in performance in later classes. This result is consistent with Montondon and Eikner (1997.) It should be noted, however, that comparisons of grades earned at multiple schools is somewhat problematic as the results presume consistent grading methods across the schools.

In physically accessing graduation forms, we also took note of the school from which the student had transferred. In doing so, we determined what we believe to be a more logical and simpler explanation for the better performance of the transfer students other than race, college GPA, grade expectation or pretest grade. The Introductory Financial Accounting and Introductory Managerial Accounting courses are **four (4)** semester units each for virtually all the community colleges in the sample. The Introductory Financial Accounting and Managerial Accounting courses at the University are only **three (3)** semester units each. The simplest explanation for the result that transfer students perform significantly better than native students is that transfer students have taken more semester hours in accounting than native students. (Since Montondon and Eikner (1997) managed to explain the better performance of transfer students via other variables, it appears that they never considered or tested for this possibility.) In addition, several of the community colleges have an accounting course such as Accounting Procedures that students may take prior to Introductory Financial Accounting. The University has no such course.

Although the difference in semester hours represents a new hypothesis with respect to the cause of differential performances between native and transfer students, it is a hypothesis we cannot test at the University. Of the remaining 356 transfer student data points, 322 represented community colleges that had four-unit introductory accounting classes. The other 34 were primarily colleges for which the course credit hours were indeterminable. There are not a sufficient number of data points of colleges offering three (3) unit courses to allow for statistical analysis.

Even though we could not test the hypothesis that the primary reason for the differential performance was the result of differences in the semester units, we recalculated our results for the new sample size in order to ensure that our prior results held. These results are represented in Table 3.

Table 3.

Average Grades of Native and Transfer Students in Introductory Financial Accounting, Intermediate Accounting I, Required Courses and Electives

	Native Students		Transfer Students
t-Statistic			
Introductory Financial Accounting	3.109	3.001	2.057**
Intermediate Accounting I	2.581	2.726	
-2.193**			
Required Courses	2.535	2.753	
-3.399**			
Electives		2.885	3.002
-1.759*			

** Significant at 5%

* Significant at 10%

The results are consistent to those presented earlier with one exception. The average grade for native students in the introductory class is significantly higher than that of the average grade in the introductory course for transfer students. Assuming comparable grading standards, this strengthens the conclusion that the subsequent difference in performance is not related to differential ability-related factors such as grades in the introductory courses, college GPA, etc. Even though native students, on average, performed significantly better in their introductory accounting class, transfer students, on average, performed significantly better in Intermediate Accounting I. Furthermore, this difference in performance persists through the other required courses (Intermediate Accounting II and Cost

Accounting) and the elective courses. This latter effect is extremely important as it implies that there is a choice available to students that can significantly affect their performance in ALL subsequent accounting classes. Their performance in upper division accounting classes is not simply a matter of demographics and ability-based variables.

CONCLUSIONS AND LIMITATIONS

Transfer students from community colleges that have four-semester-unit Introductory Financial Accounting and Introductory Managerial Accounting classes perform significantly better in Intermediate Accounting I than native accounting students at the University. This result remains after controlling for grades in Introductory Financial Accounting. Furthermore, this difference in performance persists through the other required courses (Intermediate Accounting II and Cost Accounting) and the remaining accounting electives. This result implies that students may significantly enhance their performance in upper division accounting classes by deliberately choosing to take their introductory accounting classes at such community colleges rather than universities that only offer three-unit-semester introductory classes.

There are several limitations in the design and implementation of this study. The use of accounting graduates, while providing for a longitudinal study, creates an inherent “survivor” bias. The results don’t include those students who took Intermediate Accounting I at the University but failed to graduate from the University. The results also do not control for demographic characteristics such as age, race, and gender and some ability-based variables such as GPA that have been shown to affect performance in Intermediate Accounting I. The results are also limited in that we cannot test our conclusion at the University. However, we believe that the strength and consistency of the results leave virtually no room except to conclude that the reason for the better performance of transfer students over native students is the result of transfer students having taken more accounting (hours) than native students.

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READING ENGLISH AS A SECOND LANGUAGE: A REPORT OF THE FINDINGS ON SIXTH GRADE STUDENTS IN DENMARK

Isaac Willis Larison

Northern Kentucky University

ABSTRACT

This paper presents the findings of assessments completed with thirty-three 6th graders from an urban Catholic academy in Denmark administered in the spring and summer of 2007 and the summer of 2008. All students were evaluated using the Classroom Reading Inventory (CRI). In addition, the children produced a writing sample and responded to a survey regarding their reading habits, exposure to books, reading interests, and opinions regarding learning to read. Results from this school demonstrate little difference in the reading levels achieved among the children in the Danish school when compared to an American counterpart. However, there were noticeable differences in the writing samples between Danish and American students. These differences will be examined in a later paper. Danish students reported differences in early reading experiences, differences in the levels of access to books, and differences in attitudes about independent reading.

INTRODUCTION

In June of 2003, 20 sixth grade students in two different schools in Denmark were assessed using an informal reading inventory. This pilot study found most Danish children (16) scored at or above their expected reading level. Some (3) scored as much as two grade levels above their grade level. One child scored below his reading level. The Danish children were able to demonstrate various reading skills in English (reading graded word lists, reading sample graded narrative/expository passages, and answering comprehension questions related to the passages) because they had begun learning English in grade three. English was a second language for all and they were completing their 6th year of compulsory education. A larger comparison study of 100 American and Danish students was begun in the spring of 2007 and completed in the summer of 2008 to: study whether the 2003 findings could be substantiated with a larger sample of assessments; survey Danish and American students' attitudes about reading; and observe and examine practices Danish teachers used to instruct students in English.

RESEARCH QUESTIONS

The following questions formed the foundation for this investigation and were addressed first by sampling 100 American and 100 Danish 6th grade students' performance on the CRI. What factors influence the success Danish children experience reading in English? Is there a pattern of success for students in a particular academic setting? What factors do students believe contribute to their becoming successful readers of English? What instructional strategies do English teachers in Denmark use?

Each student provided a writing sample and answered a survey regarding behavior, attitudes, and interest in independent reading. An English teacher in Denmark was observed and interviewed to gain greater insight into her instructional approaches and classroom procedures.

Teaching Phonological Awareness

Early instruction in phonology and phonemic awareness seems to have a tremendous impact on later reading success according to a study by Bradley & Bryant (1985). Children who were given additional instruction in phonemic awareness in the first two years of their school experience demonstrated greater levels of word decoding skills than those who did not receive the additional instruction. The group receiving the intervention demonstrated an advantage in spelling skills as well by nearly 20 months. A similar study in Denmark by Lundberg, Frost, & Peterson (1988) demonstrated the additional instruction in phonology boosted performance among children in both reading and spelling skills. Later studies (Lyster, 1997; Schneider et al., 1997) had similar results in reading and spelling achievement. Other studies linked success in literacy acquisition to instruction in phonological awareness and developing students' knowledge of sound/symbol relationships (Bradley & Bryant, 1985, Ball & Blachman, 1991, Hatcher, Hulme, & Ellis, 1994).

English Language Learning

According to Christian and Pufahl (2005), communication in two languages is considered essential for the success and survival of the European Union. European teachers are encouraged to integrate technology and incorporate travel abroad experiences for their students when possible. Additionally, teachers engage in professional development, study abroad, and teacher networks that promote learning and improving language learning. Denmark has a long history and need for its citizens to know and use more than one language (Christian & Pufahl, 2005). The use of English at the university level has made it necessary for students to achieve proficiency with English as an academic language. Fitzgerald & Graves (2005) demonstrated the need for teachers to focus instruction to support reading experiences in the content areas by scaffolding language learning for young children.

The Classroom Reading Inventory (CRI)

The Classroom Reading Inventory (CRI) developed by Nicolas Silvaroli and Warren Wheelock (Wheelock, Silvaroli, & Campbell, 2008) has been in use for more than forty years. It is designed for classroom teachers and reading specialists to: quickly and accurately diagnosis the reading levels of individual students. It is administered in about 15 minutes through a step-by-step process and pinpoints a student's frustration, instruction, and independent reading levels along with listening and word decoding skill levels.

The CRI is designed to use with students in grades K-12 (forms A and B) and adult learners (form C) and is available through on-line resources. The assessment materials include how to administer, score, and interpret the data gathered. It can be adapted for use with remedial students as well. The assessment uncovers a child's specific reading strengths and weaknesses. It is widely used in American schools (Wheelock, Silvaroli, & Campbell, 2008).

What Determines Success in Reading?

According to the National Institute for Literacy (2009), successful reading results through the development of 5 interrelated literacy skills. Children must receive instruction in phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The CRI tests phonemic awareness (being able to decode words) and text comprehension (being able to understand the meaning of text). There are many methods of teaching and improving these 5 skills. However, readers must learn to connect the printed form of words to meaning and string the meanings together into a coherent message. Children have the greatest success in reading when they are taught a balance of decoding and comprehension skills; have a shared reading experience in a supportive family and community environment, and have opportunities to read independently for pleasure (Reutzel & Cooter, 2009; Tompkins, 2009; Wheelock, Silvaroli, & Campbell, 2008).

Children begin the reading process by developing various concepts of print. They associate the names of symbols with printed forms, learn that text is read from left to right and top to bottom, and recognize key features of printed text – capitalization and punctuation. Later, children learn to associate and reproduce the sounds with the names of the symbols – phonemic awareness. Putting these elements together is referred to as decoding. Prior to entering a formal academic setting, children have built a storehouse of words in their listening and speaking vocabularies. The formal process of schooling teaches children to associate what is heard and spoken - the sounds - with the actual meaning the words represent (Cunningham, 2009).

Why Knowledge of Sound and Symbol Relationships is Important for Decoding

Many linguists agree English is constructed using 44 different sounds represented by 21 consonant symbols and 5 (sometimes 6) vowel symbols. Some symbols (symbol combinations) represent more than one sound. Generally, the vowels make 2 or more sounds depending on their placement in words or pairing with other symbols. In the word “rat,” the “a” is a short sound. In the word “rate,” the “a” is a long sound and in the word “tar,” the “a” is an r-controlled sound. Through exposure to language and specific instruction, children learn to associate specific symbol patterns in words with their corresponding sound patterns. Thus, a child may learn the symbols /c/a/r/ is read “car” (Cunningham, 2009; Tompkins, 2009).

The Balance between Decoding and Comprehension

Children with limited experience with books or cognitive capabilities are sometimes unable to build connections between words they are able to decode and the meaning associated with them (Jones & Larison, 2009).

Therefore, it is important for teachers to use a balance of approaches to help children develop proficiency in each of the 5 areas of reading. A comprehensive approach, often referred to as the 4-Block Approach, includes independent reading activities (Self-Selected Reading), teacher led activities (Guided Reading), specific word instruction activities (Word Work/Phonics) and process writing activities (Prewriting, Drafting, Conferencing, Revising, Editing, and Publishing). Over emphasis in any one area will lead to deficits or difficulties in the other areas (Reutzel & Cooter, 2009; Tompkins, 2009).

An Imbalance between Decoding Skills and Text Comprehension Instruction

Some children may have a good understanding of what they have read because they rely on the context. They know and recognize many words but may not be able to identify words in isolation or say specific sound combinations in words. This is particularly true of children who have specific difficulties hearing or saying (distinguishing) sound/symbol relationships in words. A program emphasis in vocabulary development may impede a child's development of phonemic awareness. However, a program emphasis in phonemic awareness and phonics instruction may result in problems as well. 50 to 75 percent of the words a child reads (high frequency words or sight words) are words that must be learned by sight because they do not follow typical sound/symbol relationship patterns and carry little meaning by themselves. The word, "of" for example, is best understood when learned in context... "I would like a piece 'of' cake" rather than learned in isolation (Cunningham, 2009; Wheelock, Silveroli, & Campbell, 2008).

The Survey

In 2005, the National Literacy Trust in the United Kingdom released findings regarding the reading habits and interests of 8000 children and young adults from its survey. The survey sampled children and young people's reading habits and preferences for independent reading (Clark & Foster, 2005). It was designed to uncover information regarding why some children read more than others, what sorts of things they read, when, where, and how much they read, and who encourages them to read. Researchers found independent reading and reading for enjoyment increased overall academic achievement, increased general knowledge, and minimized the influence of negative social and economic factors on overall academic achievement (Cox and Guthrie, 2001; Cunningham and Stanovich, 1998; Elley 1992).

Pressley (2000) found that extensive independent reading increased a child's fluency, increased a child's vocabulary, and a child's background knowledge. Cunningham & Stanovich (1997) found, the amount of reading children did had a direct impact on their academic achievement and increased their general knowledge. In addition, independent reading helped build vocabulary in children with lower levels of cognitive ability.

RESEARCH CONTEXT – SCHOOL SETTING

An Urban Catholic School in Denmark

Approximately 13% of students in Denmark attend private school (Learning in Denmark, 1997). Most students, however, complete the required nine years of public education in a Folkeskole (public school) for children in preschool through grade 10. In this paper the urban Catholic school will be referred to as Sankt Frederick's Academy (SFA). SFA is located in an urban area. There are approximately 300 students in the lower and upper secondary divisions (grades 6 – 10). It receives 3/4th of its operating budget from the federal government. In addition to federal funding, parents pay a monthly tuition fee to cover the cost of programs. Students completing their compulsory studies at SFA may opt to continue their studies in the gymnasium program for grades 11 – 13. Class size is roughly 20 pupils per one teacher in all subject areas. The curriculum includes numerous field study opportunities for students to travel throughout Denmark, in neighboring European countries, and to the USA for gymnasium students. Partnerships with other lower and upper secondary schools throughout Europe have been established. And, numerous academic, social, and sports programs exist between the students of SFA and lower and upper secondary schools in other European countries. The ethnic, linguistic, family and economic backgrounds of students at SFA vary. Students are required to take a full compliment of classes including: Danish (Language and Social Studies), Mathematics, Religion, Science, English, Art, and Music. At age 15 or 16, students may be ready to further their education in an upper secondary school (Gymnasium - the academic line; Vocational; or Commercial – the business line). SFA only offers the academic line.

METHODOLOGY

In the late spring of 2007, Administrators from SFA identified two classes consisting of 20 sixth graders each, taught by native English speakers for the researcher to assess using the CRI. The researcher met with the classroom teachers to organize times and days when the assessments could be administered. The researcher and research assistants met with student participants on two separate occasions in the library, located a short distance from the 6th grade English classroom to conduct the assessments, writing samples, and surveys.

Each CRI assessment averaged about 20 minutes in length. Following the CRI assessment, student participants were asked to write a story based on an image of an older adult man walking along the sidewalk with a younger child. Each participant was given paper and pencil and allowed to view the image provided to them throughout the writing time. These writing samples were completed independently. Participants were not allowed to use any source materials such as dictionaries, thesaurus, etc. to aid them in completing their stories. No additional help was provided to participants beyond the prompt, "Write a story about this photograph." Students who asked for assistance were told to do the best they could with writing and spelling. Each writing sample took between 15 – 20 minutes.

Students who completed both the CRI assessment and the writing sample were surveyed about their reading habits and interests on a separate day using the: *Read On - Reading Connects Survey* instrument (www.literacytrust.org.uk/research/readsurvey.html). Research assistants made two observations in the classroom of the English teacher. Following the observations, the research assistants met to discuss their observations and compare observation notes. In addition, the researcher and research assistants wrote brief response papers to capture their impressions of the assessment and writing experiences with the student participants and their observation experiences in the classrooms. The classroom teacher submitted a written interview response sheet concerning her instructional practices and the strategies she used to teach English.

FINDINGS

This paper addresses the findings related to the CRI assessment process, surveys conducted, and observations and interviews with the English teachers from SFA. The primary focus of this study was to uncover typical reading levels and the impact of social and cultural experience on learning to read in English among 6th grade students in an urban Catholic academic setting in Denmark. Classroom observation records and interviews were conducted with the English teachers in order to identify specific instructional approaches or strategies used by these two English teachers. The results were used to substantiate the independent reading levels (in English) of 6th graders in Denmark. Additionally, an effort was made to observe successful instructional reading practices and strategies English teachers in Denmark used in their classrooms.

Student Assessments - Classroom Reading Inventory Scores

Students were ranked according to their performance from lowest to highest on the graded word lists and graded reading passages. Of the 33 students assessed at SFA, 1 student scored at the 3rd grade level on graded word lists. 9 students scored at the 4th grade level on graded word lists. 2 students scored at the 5th grade level on the graded word lists. 5 students scored at the 6th grade level on graded word lists. 6 students scored at the 7th grade level on the graded word lists. And, 10 students scored at the 8th grade level on the graded word lists. The directions provided for the CRI indicate the graded word list portion of the assessment should be stopped when a child performs at or below 75%. 21 students out of the 33 students assessed scored at or above the 6th grade, graded word list level. A student's performance on the graded word list is used to determine the graded reading passage level an assessor would use to determine a child's reading comprehension level on the CRI. More than half of the students assessed scored at, or above, grade level on the CRI graded word lists. Nearly one-third of the students assessed scored two years above their grade level on the graded word lists.

Of the 33 students assessed on the graded reading passages, 8 students scored at the 4th grade independent reading level. 4 students scored at the 5th grade independent reading level. 1 scored at the 6th grade independent reading level. 6 students scored at the 7th grade independent reading level. And, 14 students scored at the 8th grade independent reading level. Of the 33 students assessed, 21 students scored at or above grade level in independent reading. A little less than two-thirds of the students assessed scored at, or above, grade level on the CRI graded passages for independent reading. Slightly more than one-third of the students assessed scored two years above their grade level on the graded passages for independent reading.

23 students completed the survey. Three questions were selected from the survey and analyzed in more detail. Each question relates directly to the student's individual attitude about reading and the opportunities they each have to engage in reading experiences outside of school. Students were asked, "How much do you enjoy reading?" 2 students said they like to read "not at all." 7 students said they like to read "a bit." 12 students said they like to read "quite a lot." 2 students said they like to read "very much." Students were asked, "How often do you read outside of school?" 10 students responded "every day or almost every day." 12 students responded "once or twice a week." And, one student responded "never or almost never." Students were asked, "How many books do you have in your home?" 8 students responded they had between "11 and 50" books in their home. 5 students responded they had between "51 and 100" books in their home. 5 students responded they had between "101 and 250" books in their home. And, 5 students responded they had between "251 and 500" books in their home.

In addition to the data collected from the informal reading inventories with students, the student writing samples, and student survey responses, one English classroom teacher was observed during a typical class meeting. On a second occasion, the students were observed while they were engaged in independent group work. The teacher responded to a written survey of questions regarding her teaching practices.

Teacher - Observation Day 1

The classroom where the observations took place was virtually devoid of materials or decorations to indicate it was an English classroom. There were few posters or displays of any kind on the walls and nothing was labeled in the classroom with English words. There was no Word Wall either. The teacher, Rosa, originally from Great Britain had taught English to 6th through 9th graders at SFA for a number of years. She is fluent in Danish and has no difficulty communicating with students in English or Danish. Her students were working in pairs on a group project that she was explaining. This was their final project for the 2008 school year and would be conducted during the final week of school. Each pair was asked to act as tour guides for a famous place of interest to American tourists (Little Mermaid, Rosenborg Castle, and the Marble Church) in Copenhagen, the capital city of Denmark. During the 45 minute observation period, Rosa spoke in Danish to the students once. The rest of her lesson was entirely spoken in English. If a student asked a question in Danish, she translated the question into English and responded in English. She encouraged the students to speak in English throughout the class by translating and/or rephrasing their questions or comments into English and then responding.

There was only one instance when the class seemed to not understand her. She used the phrase "Individual Responsibility" on the handout she had provided to the students written completely in English. One student raised her hand to ask for clarification. Rosa provided a simple definition in Danish to explain the phrase. She had the students copy the Danish translation on their papers next to the English so they would remember it. She continued reading through the assignment paper in English, explaining how the students would be graded on their projects. Once Rosa had explained the project, she told the students they would work in pairs to research a famous tourist site and prepare a presentation for faux American tourists.

Student Observation Day 2

During the second observation day, students prepared for a project on tourist attractions in Copenhagen. After a brief meeting with their teacher, Rosa, the students were sent to the study center adjoining the library. This was a long narrow space which had originally been an open-air corridor, linking two buildings together. A bank of 10 computer stations lined the outer wall enclosed by windows. Two computers were at each station. Opposite the computers was a book shelf of reference books, resource materials, and circulating books that ran the length of the room. Atop the book shelf were replica sculpture busts of famous world leaders, literary scholars, and etc. Each student was paired with a partner assigned a different tourist attraction to research. Several students were out of school due to Constitution Day celebrations.

This meant some students had to work alone. Rosa did not supervise the students in the study center. Several students were not engaged with the assignment at all, but busy "texting" on cell phones or just talking with friends. One group seemed to have combined with their peers. Six people were working at one computer station using two computers. One pair of students seemed especially diligent. They were conversing about their topic in English while all of the other groups were speaking in Danish. These two females seemed focused on their task, looking at printed documents and typing up their own report. They had found illustrations and had added them to their document. Most websites seemed to offer information in both English and Danish. It seemed most students, except for the pair conversing in English, chose the Danish versions of the websites and translated the information they found into English for their reports.

The observers asked several students about their projects. One student seemed to not know how to say her answer in English. She asked a friend in Danish and the friend answered the question in English. On two occasions, when students answered questions, they omitted high frequency words from their responses. For example when asked "What is a distinguishing feature of the church." A student replied. "The church has dome." Instead of saying, "The Church has *a* dome." This pattern of spoken English was common in conversations with students. High frequency words: *of, the, a, and*, were often omitted from their spoken constructions. This was documented in written expressions as well. The two who were working in English completed their report in the time allotted and read the report aloud to the observers in English.

Teacher A - Self Reporting

The teacher was asked to respond to a survey consisting of 13 questions. Three questions from the survey were examined in greater detail. Question 1: How do you teach English? Do you use whole group instruction, small group instruction, and/or individual instruction? "Usually whole group instruction but with regular project work with the opportunity for small groups." Question 2: What materials do you use to teach English? "English language teaching books produced by Danish publishers, Newspaper/magazine articles, short stories/ poems, and other literature." Questions 3: What forms of assessments do you use? How do you measure-monitor progress? (Are there state mandated benchmarks?) "All written work is graded by the state mandated grading system. Oral work is graded 3 times a year using the same grading system. There are mid-term and end of term oral tests."

RECOMMENDATIONS

Create a print rich environment. Label items in the classroom in English and the native language also. Learn songs and listen to books on tape in English at least several times a week. Learn English through the content. Discuss/learn history and about famous people from the original language and culture who have made an impact on the lives of students. Read books and novels to/with the children. *Number the Stars*, a story set in occupied Denmark would bring the history of War World II to life for young Danish students. Pair advanced students with students experiencing difficulty to improve the speaking and listening skills of students struggling to learn English. Enjoy learning language. Incorrect English and unintended funny expressions, or phrases were spoken often. Some examples heard were: "Let's make a walk." "I will learn you a new game." and "Have a funny day." While these constructions are incorrect they present an opportunity for learning the correct usage and/or idiomatic expressions.

Teachers need to know what students know and what they need to learn before beginning language instruction. Examine materials to use with students to ensure there is a good instructional match between the students' reading ability and the readability of the materials. Implement strategies and methods to maximize opportunities for students to listen to, speak, read, and write original language and to refine language skills. Provide relevant informal literacy opportunities for children to use and produce and cross language boundaries by translating from one language to another. Combine language systems and move between drama, art, text, music, speech, sound, physical movement, animation/gaming, etc. to communicate effectively and accurately.

SUMMARY

A number of factors seem to impact reading success among 6th graders in Denmark. Teachers have placed a strong emphasis on helping children develop phonemic awareness in the primary grades. Informal discussions among researchers, teachers, and parents revealed it is a common practice to engage in extensive early reading experiences with children at home. Since the people of Denmark are a homogeneous group, with a total population of less than 5 million, there are a limited number of Danish speakers. Consequently, there is a tremendous need for bilingualism with an emphasis on learning English since it is almost exclusively used at the university level and widely spoken by most Danes. And all students have access to hearing, speaking, and reading English in academic and social settings from early on in their school experience. In addition, there are similarities between English and Danish. Both are Germanic languages with numerous words that act as cognates. Furthermore, there are similarities in syntactical structure and pronunciations. In addition, it seems the Danes have embraced American culture. Observers noted Danes listened to local radio stations that played unedited American music, watched un-dubbed American movies, and played American video games.

English is not an official language in Denmark. However, it is the first obligatory foreign language studied by students in school. Teachers generally seemed to use two approaches to instruct students in English. Teachers used simultaneous translation of Danish to English or English only methods most frequently. It appears English is

spoken by everyone younger than approximately 50 years of age in Denmark who have had some formal instruction in English in school. It seems the majority of Danish children were able to speak English at home with their parents. However, many parents of present day Danish students may have learned British English in school. While, it seems today, more Danish students have learned American English. Researchers were told being able to speak American English was “cool” among young Danes.

Summary - Sankt Frederick's Academy SFA

The classroom at SFA did not exemplify the notion of a print rich environment; however students are surrounded by English in their daily social lives. Teachers, parents, and the children themselves voiced an expectation that they must learn and use English in order to be successful in school and life. SFA follows the state guidelines that demands foreign language instruction be considered a core subject all children are expected to learn regardless of interest or cognitive ability. Additionally, Danish children are required to learn more than one foreign language. Generally, in grade 7, students are required to begin instruction in a third language (French, German, or Spanish). Danish children experience the relevance of learning another language because they have the opportunity to travel abroad with school programs in their early years of schooling where fluency in another language is useful. And ultimately, individual accountability regarding success in school may influence Danish students to take learning other languages more seriously.

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ENLARGING THE EDUCATION VISION FOR ENGLISH LANGUAGE LEARNER STUDENTS IN THE UNITED STATES: RESHAPING THE NO CHILD LEFT BEHIND ACT

Jean-Yves Plaisir

Borough Of Manhattan Community College, CUNY

ABSTRACT

This paper focuses discussion on the implications of the *No Child Left Behind Act* (NCLB) for the education of English language learner student populations in the United States. It argues that the NCLB fosters conditions for the emergence of a rather large underclass within ELL student populations, as loopholes in this law allows local education agencies to limit the options available to ELL school-age children. Two major currents of ideas are tapped for guiding the thinking that gives form to this narrative: an ecological theory (Bronfenbrenner, 1917-2005) and the tenets of a culturally responsive education approach (Cazden et al. 1981; Au et al., 1981; Erickson et al. 1982; Ladson-Billings, 1992).

BACKGROUND

English language learner student populations constitute the fastest growing cross-section of the school-age children in the United States. Padolsky (2002; 2005) has reported an enrollment increase of 95% among students who speak a language other than English within the period of 1991 to 2001, while total enrollment at the national level increases by only 12% during the same decade. Along with this rapid change in American public school demographics comes what is known to date as the largest school reform in the history of this nation: *The No Child Left Behind Act* (NCLB) of 2001.

In the re-authorized version of the NCLB in January 2002, President George W. Bush introduced a crucial shift in policy toward students who are traditionally referred to as limited English proficient (LEP) students. This version of the NCLB makes no reference to bilingual education, and it, in effect, allows school districts to eliminate such a vital support for English language learner students. The education vision for English language learner students became relatively more skew in the 2004 revision of the *No Child Left Behind (NCLB) Act*, because President George W. Bush inserted a clause that authorizes public school systems throughout the country to issue certificates of completion to students who, after four years of high school study, do not pass both the Language Arts and Math portions of the 10th Grade State Student Assessment Exams. This particular clause in the 2004 revision of the law begs for this question: Is the NCLB Act an equitable education policy for English language learner student populations in the United States?

THEORETICAL FRAMEWORK

Two major currents of ideas are tapped for guiding the thinking that gives form to this narrative: an ecological theory and the tenets of a culturally relevant education. Firstly, Urie Bronfenbrenner's (1917-2005) ecological theory provides a strong theoretical framework for understanding the interlocking systems (e.g., microsystem, mesosystem, exosystem, macrosystem, and chronosystem) that shape children's lives. For instance, the NCLB Act originates from an environmental system (a.k.a. exosystem) that directly impacts the livelihood of immigrant children and families even though these folks had no direct involvement with the passage of that legislation. Likewise, the NCLB Act is part of a macrosystem that reflects the education values of politicians and organized lobby; and, those are not necessarily values that immigrant families and language minority groups espouse. Moreover, the accountability movement initiated by the NCLB is a large-scale education reform effort or a kind of chronosystem that will have far-reaching effects on the lives of language minority children in the United States over time.

Secondly, a culturally relevant education reform can help to reverse the conceivably perilous course of the NCLB legislation; and, such an approach should first and foremost guide the re-authorization of that law. A number of terms have been used to describe education practices that are meaningful for culturally and linguistically different schoolchildren. Chief among them are: Culturally congruent (Mohatt et al. 1981), culturally responsive (Cazden et al., 1981; Erickson et al., 1982), culturally compatible (Jordan 1985; Vogt et al., 1987), culturally appropriate (Au et al., 1981), and culturally relevant (Ladson-Billings, 1992). This paper subscribes to the notions of a culturally relevant form of education for Haitian children and other language minority groups in the United States, because such an education approach integrates the native language and culture of these children in all curricular activities.

Another reason why this paper advocates for the implementation of such an education approach is that it allows for immigrant children and their families to preserve their family values, native languages, and cultural traditions. So far, data from this accountability movement suggest that it is leaving language minority children behind.

NCLB ACT AND THE DISENFRANCHISEMENT OF ALL STUDENTS

While the proponents of the NCLB Act, as it stands, argue that this legislation seeks to ensure educational accountability by mandating more standardized tests to measure student achievements in American schools, critics of this law point out that more high-stakes tests result in greater disenfranchisement of English language learner (ELL) student populations, because norm-referenced tests as they are used in American schools today generally encode a good deal of ethnic and gender bias (Morrison, 2009, p. 80; Crawford, 2009). Crawford reported in *Education Week* that it is unfair and unrealistic for states to use standardized math and reading tests to assess ELLs for accountability purposes, because the tests aren't designed for those students.

Interestingly, Crawford's assertion is supported by recent data on the graduation rates of ELLs in the New York City public school system, which is one of the nation's largest public systems, showing that only 23.6 percent of students who start 9th grade as ELLs obtain their high school diplomas after four years of study; and a large number of ELLs ends in alternative high school programs after their 19th birthday. The dropout rate for ELLs is 41.8 percent within the span of four years. Invariably, this legislation has narrowed down the education vision for English language learner populations.

Firstly, NCLB legislation allows local educational agencies (LEAs) to quickly mainstream ELLs and to teach to standardized exams. Operating under enormous pressure, school districts shift focus from providing ELLs culturally appropriate education to drilling them for passage of high-stakes tests. Secondly, the NCLB Act allows LEAs to fund or eliminate bilingual programs at their own discretion. ELL student populations can be placed in programs that the NCLB Act loosely refers to as language instruction education programs. School districts do not have to provide native language instruction unless state officials deem such an education strategy as evidenced-based pedagogy and that they are willing to pay for it.

Secondly, LEAs find loopholes in the NCLB legislation to exclude the test scores and, quite possibly, under-report the graduation rates of ELL students. Under a 2004 amendment to the NCLB Act, school districts have the luxury to not account for ELL students in their graduation rates by simply issuing certificates of completion to students that do not pass state exams at the end of the secondary school cycle.

Thirdly, even though federal funding directed at a fast growing immigrant population has doubled in size, there are, however, fewer dollars to go into programs for ELL students. The reality is that LEAs that have large concentrations of ELL student populations are also faced with overcrowded classes; and, the growing size of ELL student populations reduces the amount of money per eligible ELL student.

Lastly, NCLB legislation authorizes the US Department of Education to utilize data from American Community Survey administered by the Department of Commerce to measure the national ELL and immigrant populations (section 311(4)). That provision fuels contentious debates about federal effort to accurately identify and report the number of ELL students and the sizes of the immigrant populations in this country. Such a measure favors gross inaccuracies in data reporting on ELL student achievements in American schools.

IMPLICATIONS OF THE NCLB FOR ELL STUDENT POPULATIONS

In a report entitled *Open to the Public: The Public Speaks Out on No Child Left Behind* (May 1, 2006), parents and community groups expressed much dissatisfaction with the implementation of NCLB policies and practices. Three major concerns are underscored in that report: (1) schoolchildren's scores on high stakes tests are unfairly used as the only accurate measures of school performance; (2) labeling low performing schools as schools in need of improvement causes those schools to lose public support; and (3) local educational agencies have not involved parents and community groups in children's education in ways that are meaningful.

On the one hand, teachers of ELL students are frustrated as they are teaching in overcrowded classrooms with meager resources. The number of overcrowded city classrooms has more than doubled since the passage of the NCLB legislation. Data from the United Federation of Teachers estimate overcrowding in approximately 6,000 city classrooms (Sarah Garland, nysun.com, September 2006).

On the other hand, vast numbers of ELL students simply drop out of school, because the pressure to do well in high-stakes tests is too much for them to handle. Such has been the effects of the NCLB Act in a number of Brooklyn high schools, where an increasing number of Haitian, English language learner students are not receiving the education support they need to help them achieve. The Haitian students are already under a good deal of stress

as they are trying to adjust their lives to the norm sets of a new country. Unarguably, those ELL students suffer much higher stress levels as they are being pressured to pass high stake tests.

An inordinate number of New York City high schools have been restructured into academies or specialized programs as a strategy to save management from hostile takeover or state control. These academies use an admission process that resembles a triage nurse technique in an emergency room, except that the nurses and the doctors are focusing attention on patients that seem relatively strong. The cultural, linguistic and psychological needs of Haitian students and families are neglected in this kind of restructuring process.

RECOMMENDATIONS

The NCLB act must not be re-authorized unless it includes much needed amendments and clear language that equitably provide for and sensibly protect the rights of all schoolchildren to good quality education in american public schools. Equitable public policy and relatively greater resource allocation are key components in educating ell student populations; and, schools in high needs communities must receive adequate public support along with qualified staff in order to yield desirable outcomes.

By the same token, teachers that work in program types for ell student populations must be treated with respect while also being reasonably compensated for taking on such a challenge. Of equal importance, local educational agencies can start working with community groups to explore ways to engage immigrant parents in programs directed at ell student populations. Both federal and state resources need to be fairly distributed in education programs across the board, ranging from head start, pre-k, middle and high schools to after-school programs, youth development programs, literacy and esl programs for immigrant parents.

Finally, high-stakes tests must be developed in the languages of immigrant children or other modes of communication and administered by trained professionals. Morrison (2009, p. 82) recommends that those measures be validated for their intended purposes, such as measuring accurately what children know and are able to do. In all, the NCLB reliance on high-stakes testing for determining schoolchildren's academic achievements must be carefully re-examined; and, sentient alternatives to those measures must be guaranteed in the re-authorized version of the law.

SUMMARY

As it is currently being implemented, NCLB legislation seems to foster the conditions for creating an underclass of invisible students, who will not be eligible for entering college, enrolling in the armed forces, going to trade schools or pursuing various other sustainable development activities where a high school diploma is required. In fact, NCLB legislation provides LEAs greater flexibility to decide on their own accord how to deal with ELL student populations. This legislation does not adequately protect the rights of immigrant children to fair and equitable treatments under the law. Ironically, the NCLB Act has left many children behind.

In order to attain full compliance with NCLB regulations, LEAs are expected to make adequate yearly progress (AYP). This means that 95% of schoolchildren in any subgroup must be tested annually and must meet or exceed annual measurable achievement objectives (AMAOs) for that subgroup. This goal seems fairly unrealistic, unless school districts hammer out innovative policies and develop equitable practices that would level the playing field for increasing numbers of at-risk schoolchildren.

Unless the current legislation is reshaped, young men and women from those communities are likely to hold certificates of completion after spending four years of secondary schools; and, with that piece of paper, they will not be able to enter college, enroll in the armed forces, go to trade school or pursue various other sustainable development activities which all require high school diplomas. The implementation of NCLB legislation, so far, raises major concerns amongst language minority communities, which have been systematically disadvantaged by inequitable public policies throughout the history of the United States.

In sum, educators and policymakers will also have to seriously take on the challenge of educating children from high needs communities, developing understanding and sensitivity to the broader economic, social and political contexts that influence the academic achievement and the success of English language learners. Finally, there must be some willingness on the part of legislators and local educational agencies to create caring school communities and use the types of pedagogy that would not leave any child behind.

References are available upon request

DIVERSE IBERIAN HEGEMONY AND COMPARATIVE AMERICAN STUDIES: INVENTING THE UNIVERSITY AS A SOCIAL INSTITUTION WITH MULTICULTURAL SOCIAL INTERACTIONS IN BRAZIL, MEXICO, AND OTHER PARTS OF THE NEW WORLD

Donnie A. Lawrence
Campbellsville University

ABSTRACT

Comparative studies and global understandings are critical. Linked with international, economic and political manifestations, education phenomena may be seen as cultural and technological while viewing the university as a tool. Comparative world histories are vital to understanding current contexts for joint international activities and their potential economic and socio-cultural interactions during the 21st century. Describing the origins of the university itself and the diverse ways it was implemented in the Americas is vital to understanding the diverse meanings of knowledge is power. Understanding the late arrival of the university to Brazil allows a clear departure from both Mexican higher education as well as postsecondary education of the United States. Demonstrating the Moorish contributions at the origins suggests that there are pluralistic religious and cultural origins to this most important social institution. Peculiar historical circumstances provide salient examples of pluralistic society and multicultural education. This comparative and international studies approach is concerned with diverse global interactions and expectations. Extending these works to the field of leadership and planning is necessary to inform future educators, policy makers, and social reformers.

INTRODUCTION

Comparative studies have never been so important. With global understandings linked by more international economic and political structures, manifest and latent functions, cultural, ecological and technological changes are nearly continuous. Education policy makers can learn from others and improve the well being of their citizens. Internationalizing curricula can be viewed as part of a larger context of education for peace, justice and well-being. Prior to the 21st century, scholars have been aware that global education was a primary goal for any modern society (Tye, 1991).

Educating society has various economic and political ramifications for that citizenry. Education may be utilized to maintain one economic class in power over another. The power mechanisms of a technologically well-equipped workforce in the center of the global economy add a comparative advantage in relationship to the peripheral countries. The power structures often use educational institutions as a direct means of preserving a status quo in social stratification by the elite core. This nearly always results in a typical bureaucratic and pyramidal, elitist structure of social relationships. These relationships are political and economic as well as educational.

This comparative work on Latin America (Brazil and Mexico) contributes to understanding the relationships between and among the university as a social institution contributing to multicultural society and education, international studies and global peace by offering the following basic tenets:

Brazil and Mexico are each analyzed in the context of the university as a tool;

There is an emphasis in current research toward more global interconnectedness, not less;

They are limited descriptive cases;

They expand historical contexts for social justice and multicultural foundations of the university;

Beyond mere toleration, differences must be understood;

Through studying others we learn more about ourselves;

Brief references to the United States may help provide a timeline for refined comparative understandings. International and multicultural education help develop a better understanding for the theoretical and practical contexts of how diverse groups contribute to understanding other complex, open multicultural societies.

Professional teacher education knowledge bases emphasize diverse connections between multicultural and global education. Their quests for better understanding through better communication give common and overlapping aims and goals. Global education sprang from an overdue recognition of the growing inter-relatedness of all peoples while multicultural education studies the significance of diversity within national boundaries. The

comparative approach includes studies in international and comparative education as examples of the comparative approach applied to educational inquiry. Through this kind of study, we may find that transplanting an educational measure from another culture may or may not be helpful or feasible. Cross-cultural studies of education enable us to avoid counterproductive research and self-defeating educational practices. They also suggest that anthropological and historical approaches be utilized in studying comparative education: one may use ethnographic as well as ethnological techniques, the historical approach (comparing the present with the past) in the study of cultural development is indeed applicable to the study of educational institutions and their functions today and in the future (Pai and Adler, 1997). Comparative studies give a broader perspective from which to view the data, guide theories and provide a more thorough understanding for global exchanges and policy reforms. Refined knowledge bases and cross-cultural perspectives provide key theoretical contexts for informing educational leadership at multiple levels.

IBERIAN IMAGERY

Latin America received three institutions from Iberia which reflected the medieval division of power into the temporal, the spiritual and the academic (Stansifer, 1993). These included the state, the church and the university as social institutions. Latin American universities tended to provide an oligarchy whose interests were intertwined with church and state. As higher SES jobs like prince, bishop, professor and landowner became scarce, universities had to prepare professionals for trade and commerce as well as for the classics and humanities (Maier and Weatherhead, 1979). The medieval professor may have well been one of the most ostentatious examples of knowledge and leisure combined into rigid hierarchies found in the 1200s. However, it is noteworthy that the Bologna University (1172) students and faculty were feared by church and prince alike for their ideas. Therefore, some sort of political praxis had the potential to be unleashed in such a manner that might oppose the power structures found in southern Europe. The Arab institutions of southern Spain had subtle differences from the European ones. Many students were recruited from the same oligarchy and generally were educated to become doctors, judges, lawyers, instructors, or public officials (Barrientos, 1985).

From Iberia to Mexico and Brazil came the mark of university education as a signature of the leisure class. This continues in parts of Mexico, Brazil and other parts of Latin America today. Habits of thought characterizing the dominant class were transmitted in Iberia as well as throughout much of Latin America, especially from the 1350s to the times of the conquistadores and descubiertos. The elitist systems should at least be examined within prevailing and counter ideologies, and for their effects on the other classes. Habits of thought are often transmitted from the upper class to other SES classes by the universities (Kuznesoff, 1983). Oftentimes the universities were used with prejudices and exclusionary with distinct social boundaries and collective identities.

In Castille and Leon, before the beginning of the thirteenth century, Palencia and Salamanca had been founded as royal universities in service of the local royalties, but in Seville, Granada, and Cordoba, libraries of great universities had been established two hundred years earlier. Royal documents from Salamanca refer to a university for all members of the university (students as well as teachers) by 1254. By 1282 royal documents indicate that student involvement in government as in Bologna had caught on north of the Pyrenees, but Seville, Granada and Cordoba still relied heavily on the powerful master who had networked with secular and non-secular powers (Christian and Muslim). Bologna had received the Pope's blessings of student autonomy and was governed as a corporation of students. This was different from Paris—at least in theory—where the university was organized as collegiums of masters and doctors. This emphasis on student autonomy is part of the tradition of Latin American universities as contrasted with those of North America (Gongora, 1979). Even with the emphasis on student involvement in university governance, Palencia (1212), Salamanca (1243), Lisboa-Coimbra (1290) and Bologna still left finance in the hands of the king.

Under King Alfonso X, the Wise, *Las Siete Partidas* were compiled from 1256 to 1265. These laws produced a vast legal encyclopedia which became the text for one of the early required classes in each of the Iberian universities. Along with *Estoria de Espanna*, or *Primera Cronica General*, these early texts were gathered in Castilian as well as Latin. Thus the educational phenomenon contributed to the development of both national consciousness and national literature. *Las Siete Partidas* were based mainly on Roman law with some Iberian and focused on standardizing the administration of justice equally throughout the kingdom as a necessary first step to building a strong monarchy and a close-knit society (Atkinson, 1967). It also described the linkages between the university and the rest of the kingdom. Further evidence of the Bologna model is the fact that theology was not

taught until 1355. According to Las Siete Partidas, great emphasis was placed on teaching law—primarily secular at first—as humans expanded trade and other social boundaries. Salamanca was the principal university model in Castille. But the University of Toledo grew during this period situated in closer proximity to Andalusia and earlier Moorish universities with Arabic influences cited above. Its curriculum looked to the Church as authority over the temporal; so any knowledge taught within secular contexts necessarily became infused with religious overtones.

Denis ‘the Farmer’ made Portuguese the language of law at Lisboa shortly after founding the University of Lisboa in 1290. He encouraged nobles to cultivate their estates as materialistic wealth while curtailing many of the Church’s holding in land and land rights. Following his grandfather, Alfonso X of Castile, who had raised him, Denis became “a Maecenas of learning and the arts, like him enhanced the dignity of the vernacular by making Portuguese the language of law and administration, gave to literature the similar impulse of royal example” (Atkinson, 1967). The role of the university was to hold multiple cultural impulses from an Iberian mosaic of living processes together so that power might be welded with the Bologna model in mind. At variance with the masters and nobles of the University of Paris and Papal ties, the Iberian institutions tended to live up to the original definition of *universitas*: mutual protection societies for students and faculty to spread the newly forged powers of the princes against those centralized papal forces of the old guard. It also appears that these ideas spread rapidly to the low countries and Britannia with the help of ambitious students and professors. How was this powerful motif in student-faculty literature staved off by the Brazilians until the twentieth century. More students and graduates entered the growing church bureaucracy, but many students opted for the vernacular, and this was an important epoch in all Iberian expression of social power to apply choice to the gift of communication and assert a social identity at odds with the powers of the church.

ISLAMIC CURRENTS FLOWING

The notion of a university flowed out of Baghdad with a rush by the eighth century. Within decades, Arabs took the notion and it became a global cultural and educational force because—in part—of the Islamic social institutional force and its ability to absorb, reinterpret, and transmit knowledge from one cultural region to the next. Missionary zeal brought Muslim scholars to Spain while they simultaneously helped maintain culture contact with many eastern cultures as far east as Macao, Timor, India, Malaysia and Indonesia. In turn, parts of these cultural configurations and constellations were incorporated as elements into a modern mosaic growing within Iberia. The Arabs and natives of Morocco were multicultural when they came into contact with Iberians. “Arab scholars encountered and refined elements of mathematics, medicine, astronomy, science, and architecture from the Indians, Persians, and Greeks into their own culture. For example, after learning the technology of paper making from the Persians who—in turn—had learned it from the Chinese, the Arabs carried it to the Europeans” (Ornstein and Levine, 2002). The Arabs developed a new number system, including zero, that revolutionized the academic world of arithmetic. By using Indian arithmetic and Greek geometry, Muslims and Arabs developed Algebra (Eaton, n.d.). Arabic scholars established higher education at Baghdad, Cairo, Cordoba, Grenada, Toledo and Seville, where they codified and taught their epistemologies in a wide variety of academic disciplines (Ornstein & Levine, 2002). Also:

In the tenth and eleventh centuries, Islamic learning had a pronounced influence on Western education, especially on medieval scholasticism....From contact with Arab scholars in North Africa and Spain, Western educators gained new insights into mathematics, science, medicine, and philosophy (Lewis, 1993).

Important Arabic advances in medicine were introduced to the medieval university of Salerno in Italy. Arab scholars also translated and preserved the works of such important thinkers as Aristotle, Euclid, Galen, and Ptolemy. Because many of these works had disappeared from Europe by the Middle Ages, they might have been lost to European culture if they had not been preserved by the Arabs...(re-fusing in Iberia and on the medical institute at Sicily when Catalonia ruled the western Mediterranean but before the Conquistadores traveled west)...Arab scholars, such as Avicenna (980-1037) and Averroes (1126-1198), had an impact on Western European education. After encountering Aristotle’s texts, Avicenna translated them into Arabic. Although Western European educators were familiar with Aristotle’s logic, many of his philosophical texts were presumed lost. When Scholastic educators acquired Avicenna’s translations of Aristotle, they rendered them into Latin. Averroes, a physician in Cordoba and also a translator of and commentator on Aristotle, wrote treatises on medicine, astronomy, and philosophy (Lewis, 1993). This early global scholarship and currents of thought arrived at Iberia during a time of constructive cultural mosaics throughout the kingdoms later transplanted to Mexico, Peru and Bolivia well before Harvard University was established in Massachusetts or William and Mary in Virginia.

The university represented an institutionalization of complex forces that revived learning in the 12th century. Rashdall described the universities as a history of medieval thought: "...of the fortunes, during four centuries, of literary culture, of the whole of the Scholastic Philosophy and Scholastic Theology, of the revived study of the Civil Law, of the formation and development of the Canon Law of the faint, murky, cloud-wrapped dawn of modern Mathematics, modern Science, and modern Medicine....The eleventh-century intellectual renaissance in Cluny and other monastic schools spread to cathedral schools as city life revived. In most instances, universities evolved from the expanding *studia generalia*, or liberal arts curricula of the cathedral schools. By the twelfth century, enrollment at certain cathedral schools had grown so large that the existing patterns of organization were inadequate to accommodate the large numbers of students. For their own protection students and masters organized associations, or *universitas*, that emulated the patterns of the craft guilds and obtained the recognition of secular and religious authorities. The famous medieval universities that originated in the twelfth century grew out of these associations.

Such related factors as the crusades, the revival of commerce, and western contacts with Arabic scholarship stimulated higher education in the twelfth century and contributed directly to the rise of the university. Between 1100 and 1200, and influx of new ideas came from the Moorish scholars of Spain...The Moorish kings of the Iberian peninsula were an initial point of contact between the European medieval and the Arabic worlds. The erudition of the Arab scholars of medicine and mathematics especially impressed the western European. Through the Arab scholars, the works of Aristotle, Euclid, Ptolemy, and the Greek physicians Galen and Hippocrates entered medieval scholarship. The entry of the complete works of Aristotle into Western Europe, by way of the Arabic commentaries of Averroes (1126-1198), was of particular significance for the development of scholastic philosophy (Gutek, 2002).

It is obvious that when coupled with Arabic numerals, time and rhythm to music signatures, and the continuous growth of knowledge and epistemological theories that the university had achieved for itself a unique identity in the world of social institutions. During the 11th and 12th centuries there was an influx of new ideas from Moorish scholars in Iberia, especially from Granada, Cordoba, and Seville. Many ideas passed through Toledo as well: curriculum of cultural exchange and university as social institution. The crusades had actually weakened feudal provincialism as the crusaders encountered cultural contacts with many parts of the world, people and ideas. This broadened intellectual experience while city-life was reinvigorated. It eventuated in the growth of the universities (Gutek, 2002). The crusades initiated much learning into Iberia while reviving commercial and city life. The educational and cross-cultural experiences prompted many activities and economic life received new stimuli and capital from abroad. Scholarly interchanges offered an alternative to feudal enclaves. A few centuries later these ideas and social institutions would be transmitted to the New World of the Americas through many varieties of experience, but using this unique creation of medieval cultural epochs and patterns of social interaction.

TRANSPLANTED TO THE AMERICAS

Ties with the papacy and separate kingdoms made academic life more attractive to individuals especially if their older brothers had received primogeniture inheritances and they had not. As the church bureaucracy grew, however, students and graduates began to take jobs with the church. It is believed that the generation of artisans that arrived at Chuquisaca University of Upper Peru (Bolivia) in the late sixteenth century was the finest Europe had ever prepared. One researcher has suggested that:

The monastic style of life of these institutions, led to their development by the religious orders. The Dominicans and later the Jesuits were active in founding colleges and attaining for them the rank of university. Set up to aid poor students, they were soon transformed into closed guilds, demanding of their entrants lineal purity (*limpieza de sangre*) and noble parents (Gongora, 1979).

This was an inter-generational process often taking up to four generations, but as with membership of clubs in later times, these enrollments and positions fused power into the ideas found within their walls. Much later, with the Bourbon reforms of the 1760s, the tiny aristocratic colleges were usurped of much of their hegemony (Ajo Gonzalez y Sainz de Zuniga, 1957).

The first university of the Americas was founded by a Papal Bull in 1538, having been requested by Dominicans living on the island of Hispaniola. In 1551 an incorporating charter for a university arrived in Mexico City after numerous requests (Carreno, 1958). Yet it was not until 1562 that the university received autonomy from the royal government, demonstrating the reluctance of the Crown to disperse royal power. In other parts of Spanish America this was also true as Viceroy Francisco de Toledo of Peru pled for an autonomous university when he said he was persuaded that it is better for universities to be separate and not under the auspices of any monastery as are the universities in Spain (Ajo Gonzalez, 1957).

Colleges and universities exacted heavy tuition fees and graduation fees. In both Mexico and Peru, it was impossible for slaves and Indian tributaries to attend *encomiendas*. In principle, any free person could attend the Spanish universities of Latin America. In reality, all poor people were excluded from educational opportunity except for an occasional extremely rare scholarship. By 1600 bishops had asked that free Indians, *mestizos*, negroes and mulattoes be admitted to at least study grammar and the arts, while reserving the other faculties for the more affluent (Gongora, 1979). It was possible for a few nonwhite students to enter, the process reversed as the process of *criollo-mestizaje* accelerated. During the early part of the seventeenth centuries proof of *limpieza de sangre* was demanded throughout Spanish America. This was a caste requirement similar to citizenship and other political dialectics occurring between the *gachupines* and creoles in the broader social institutions and everyday political and culture patterns of discrimination based on where you were born—very different from caste divisions in India. Class divisions nearly always bring about contradictions or paradox.

SOCIAL REPRODUCTIVE ROLE OF INSTITUTION TAKES TERRA FIRME

From 1600 to 1767, religious orders were very important in Latin American education (Gongora, 1979). During this period the importance of canon law decreased as that of civil law increased. One important paradox in colonial governance could be ascertained from this: the university fought church control early in Iberia, but could now be substituted as another arm for the king of Spain in colonial dominions. Hence, it had changed in its authoritative stamp of power from one of separate and critical powers to a more radical crystallization with rigid social markers that helped the upper economic classes dominate and oppress the lower classes in Spanish America. Civil law made judicial decisions fit the royal needs most often. It could be easily changed over a period of time if it did not. By this time, the creole class had grown in importance so that it occupied much of the student enrollment alongside the *gachupines con limpieza de sangre*, especially in Mexico, Peru, Upper Peru and Guatemala. Through this discrimination with Indians and mestizos the objects of, religious orders were beginning to pay more attention to economic benefits for the parish and Church than the humanism of earlier times. Economic cycles impacted these socio-cultural conditions. Throughout the eighteenth century rivalries for ownership and status erupted throughout Latin America. Competition for economic benefit and of basic philosophy were at odds with the Dominicans teaching Thomas, the Franciscans teaching Duns Scotus and the Jesuits taught Francisco de Suarez (Gongora, 1979).

“The leading Creole classes needed the university and this was a socially decisive factor. A formalistic and dialectical intellectual style became rooted in the main professions; it...led to an intellectual disposition both scholastic and legalistic” (Gongora, 1979). The increased emphasis on legalistic intellectualism was due in part to the creole class and its need to reinterpret legal traditions and write new laws to secure a place within an economic oligarchy. One royal reaction to insure that the educational system would continue to serve the upper classes was the Royal Edict of 1676. This reduced autonomous university control and allowed royalty to penetrate further into educational decision making. Professors competing for chairs were no longer selected by a purely academic committee, but by a new one which would include the archbishop, the chief justice of the *audiencia*, the Dean of the school, the professor being replaced (if alive), and the senior professor of the faculty in the school of the position to be filled. This system held throughout almost all of Spanish America. In fact, the university of San Marcos defended the claims of the creoles over those of the *chapetones* as well as those of the lower classes for student placement and increased jobs for graduates (Gongora, 1979). This may reflect the power of the rapidly-expanding creole social class in comparison with the slowly diminishing power of the *peninsulares*.

Some peninsular control and authority was maintained in small degree through the education of a class of *letrados* whose law graduates held the most important positions in the judicial system. Being educated in law was a major requirement for membership in the *audiencia*. The growing number of creole graduates from universities in the Americas slowly came into conflict with the peninsular graduates for increased access to political channels such as many of the judicial tribunals. This became a struggle for power in a few universities. Still, membership to the highest court was jealously restricted to *peninsulares* (Eguiguren, 1950). As time passed many judges became identified with the American points of view and some of their families became influential in the subsequent colonial and independence histories.

ENLIGHTENMENT, SOCIAL CHANGE AND THE UNIVERSITY IN SPANISH AMERICA

The period from 1767-1810 was very important for education. This enlightenment period was a time of intellectual and institutional reform. One action that helped initiate this era was the expulsion of the Jesuits in 1767. The Jesuits had responded with counter-Reformation in Europe. They carried the Bible in one hand and the

sword in the other. The rise of the Portuguese, Loyola and Xavier, had given rise to thorough Christian education at all levels, especially the *colegio* in the Americas. The methods of encyclopedism relied on bicultural and bilingual education to reach, pacify and control Amerindians and other natives throughout the Portuguese colonies (Ulich, 1950). The expulsion of this religious education order left an enormous pedagogical vacuum in many areas of the Americas, especially in the lowlands of South America.

The growth in transatlantic trade during the eighteenth century accounted for an increase in the number and variety of Spanish books available to Mexicans in New Spain. The Benedictine monk, Benito Geronimo Feijoo initiated some reform activities as early as the 1730s. His philosophy was eclectic with knowledge and application of scientific principles; it was inclined toward moralism and fundamentalism and used an anti-papal Galician worldview. It also contained a renewed belief in natural law (Herring, 1968). In that sense it was derived from much of the Aristotelian logic that supported the rise of science in both Europe and Latin America. It is fair to say that the enlightenment in Mexico was an intellectual movement and not a social transformation. The university reflected the caste-based status system throughout Mexico at this time.

In higher education the curriculum reflected a scientific view of cosmology. Such subjects as Copernican cosmography and Aristotelian methodologies were taught. Even though this would spell the end for the moral order over time, it did not do so in one generation. Therefore, many ideas such as the doctrine of tyrannicide and moral probability were suppressed. Creoles solidified their hold on the universities in Mexico and Chuquisaca while the lower classes remained outside any new social benefits accrued by society as a result of the so-called enlightenment. This remained true in spite of the new University of Guadalajara built in 1791 (Gongora, 1979).

Soon, new scientific disciplines began to arise within older ones just as Aquinas and Loyola had made earlier curriculum innovations. As scholasticism had applied Aristotelian logic to Christian theology, Duns Scotus applied it to metaphysics and epistemology. Knowledge begins with our experience of reality, specifically the knowledge of creatures. Duns Scotus has no problem with this argument, but he wants no part of Aquinas' method of applying this to our knowledge of God by analogy (Ulich, 1950). The general conceptual framework for higher education at the time was the growing number of philosophy chairs and the acceptance of medicine as a basic part of the curriculum. Schools of medicine added chairs in surgery and anatomy. This meant more student preparation for economic purposes such as a changing occupational structure—a general, but simultaneous curriculum reform movement requiring more specialization reflecting the increased division of labor.

POLITICAL AND CULTURAL DYNAMICS—THE AUTONOMOUS UNIVERSITY

The period of Independence was, for education, a continuation of academic reform. Organizational structures changed little, but the university began to use its institutional power to buffer itself from changing power relationships. The revolutionary period fueled the growing autonomy of the university. Long-censored books began to arrive with multiple translations. The sheer number that was diffused throughout Mexico led to a much greater percentage of the population having access to the printed word. Holding the artifacts was also a sign of status during a time of general revolution. Creoles held status and boundary markers which had only been possible for *peninsulares* two generations earlier. The rising new classes were hostile toward the older universities and often favored smaller colegios; universities were seen as bastions of traditional power structures. The universities did seek to foreclose the lower classes from attendance. As a result, the ideas of Owen, Saint-Simon and Comte found homes in the western hemisphere in the Americas, Mexico, Brazil, and the United States. These social reformers believed that education was the key to a better way of living, stable cultural patterns, and pursuit of happiness within a group context more than an individual one. Therefore, universities were suppressed in favor of reordering national educational systems. This opened education access to a greater citizenry. Increased attention toward public education began to capture the minds of politicians and educators alike just prior to and during the revolutions.

Amerindians continued at the bottom of Spanish American society. They were exploited, dehumanized, and oppressed even unto death by creoles, priests, their own *caciques*, and increasingly by *ladinos* and *mestizos*. These distinct socio-economic groups designed policies so that the bureaucracy might continue to keep the Amerindians at the bottom rungs of emerging *ejidos*. Economic markets became tied to creole and ladino production, and less to Amerindian pueblo production. As one anthropologist declared:

Typically, these outsiders (ladinos) belonged to the strata of the population which during colonial times occupied a marginal position, but which exerted increased pressure for wealth, mobility, and social recognition during the 19th century. Unable to break the monopoly which the haciendas exercised over the best land, they followed the line of least resistance and established beachheads in the Indian towns.

Lusitanian Traditions

During the 1400s and the 1500s, Catholic power was diffused by the division of the Christian world, the Reformation, and the decline of the Pope's temporal power. The absolute power of kings, the birth of nationalism, and the initial rumblings of the Enlightenment all contributed to much social change in Europe. During this period, the Portuguese saw themselves as defenders of the Church in a great age of faith (Teixera, 1979). The University of Coimbra was virtually the only institution of its kind available to Brazilians (Evora, Salamanca, and the University of Paris provided rare exceptions). Coimbra was a center for Thomistic philosophy and Catholic theology, both philosophical examples education's rigid, hierarchical system of thinking which organized cultural traditions and patterns into a particular worldview in international affairs with dissonance from that of Granada. The university, founded in Lisboa in 1290, shifted between there and Coimbra between 1290 and 1537, and was finally transferred to Coimbra for good in 1537. Discipline and subordination of behavior to reason was an important part of the curriculum. Stress of deductive logic gave it a Parisian bent. An early united kingdom, coupled with its geographical position on the Atlantic, and the authoritarian approach to knowledge resulted in a rigid, aristocratic culture with a closed and dogmatic worldview (Teixera, 1979).

The conquering Portuguese of Brazil were dogmatic, intolerant, and antagonistic to the developing secularization of human life. Portugal acted as a restorer of Catholic dogma and propagator of the Faith recently challenged by the Reformation. Armed with this, and the newly-formed church body, the Society of Jesus (Jesuits), a militant spirit accompanied the mercantile spirit of the seafaring Portuguese. The Jesuits often conquered with the sword in one hand and the Bible in the other. They understood the power of culture and maintained many bilingual and bicultural forms of education and social interaction (Poppino, 1978).

The elitist Portuguese society to be transplanted in Brazil had begun to undergo change by the late fourteenth century. A new group, the *letrados*, or university graduates, rose to prominence after the *Cortes of Coimbra* in 1385. By the mid-fifteenth century their positions rivaled that of the knights and *fidalgos*, or nobles. They soon assumed aspects of caste in that marriage and family relationships tended to perpetuate them in the judicial and administrative positions of government. They were tied closely to the Crown and had a deep commitment to law and order (Schwartz, 1973).

Superimposed upon the Portuguese captaincy system of separate *donatarios* in Brazil was a militarist-judicial system focused on Royal interests. The three most important leaders in Brazil were *capitao*, the *ouvidor geral*, governor-general (chief crown magistrate), and *provedor mor da fazenda* (superintendent of the treasury). The arrival of the third governor-general, Mem de Sa, marked a new period in the administration of Brazil. Unlike his two predecessors, Mem de Sa was a *letrado* by training. He had already served on Portugal's Casa da Suplicacao (a near-supreme court) and had been granted the title Councilor of the King (Schwartz, 1973).

The governorship of Mem de Sa (1557-1572) was an important period of development for Brazilian society. The Jesuits gave him valuable support. By now, they were a strong socio-cultural and political force as well as a spiritual one. Particularly French, Spanish, and Portuguese Jesuits followed explorers, traders and conquerors into the New World to convert and educate Native Americans. The Jesuits had notably been an influential teaching order effective in establishing schools and universities as well as two orders of teaching sisters. Missions throughout South America reflect the bilingual methodologies relied upon by the Jesuits in Paraguay and Brazil. These orders taught Amerindians Portuguese, but also agricultural and vocational skills. Children of the most affluent often returned to Portugal for higher education. Overall, the Jesuits tried to protect the Amerindian. Mem de Sa created a new official, the *mamposteiro*, a civil officer appointed in each captaincy to guard the rights and liberty of the Amerindians (Schwartz, 1973). One reason the Jesuits were such an important force in the colony at this time was because they were:

...essentially teachers who relied heavily upon education in their efforts to convert the pagan Indians to Christianity. One of their first objectives was to learn the Tupi-Guarani tongue and reduce it to written form so that they might communicate readily with their primitive charges and instruct them in the articles of the Christian faith. Such instruction, coupled with training in agriculture and handicrafts, was most often provided at missions built to house the converts. Somewhat more advanced training was supplied at schools (colegios) where selected Indian boys were given the rudiments of formal education (Poppino, 1973).

SLOWLY CHANGING BRAZILIAN SOCIAL STRUCTURES

The *colegios* were attended by orphans, sons of Portuguese colonists, and select Indian boys (Poppino, 1973). It is significant that modern Sao Paulo owes most of its origins to the Jesuit colegio, demonstrating the early development of a pluralistic multicultural society in southern Brazil. Santa Maria in Rio Grande do Sul is another forensic sample of a pluralistic hegemony concerning education well before the sixteenth century. Other evidence is that of the expulsion of the French and defeat of the Tamoios, a Jesuit mission was erected at Rio de Janeiro. Further evidence to the critical education policy and leadership of burgeoning political and economic forces by the Jesuits during Mem de Sa's day is: that in 1562 Jesuit missions in Bahia had populations of more than 34,000 including tens of thousands more in the surrounding villages (similar to the praying towns of New England, Virginia and the Carolinas of the same period). The sheer numbers gave power to religious and political forces alike. The Jesuits were not only adept at organizing, but their methods of encyclopedia(ism) coupled with bilingual pedagogy gave formal and informal education elements opportunities to describe what was happening as a result of culture contact and that the caciques should render to God the hearts and minds of their children, repudiate their own evil worship, and give their daily economic potential to the political interests of the Jesuits, not the *capitao* and *ouvidor geral* (Ulich, 1950; Lawrence, 1989). This would lead to a major chasm in the eighteenth century. Eleven years after Mem de Sa's governorship, in 1583, Jose de Anchieta could only account for 18,000 Indians in the entire colony (Poppino, 1973). As labor on sugar *fazendas* ultimately ran counter to Indian culture and habits, slaves from Africa slowly replaced them until by 1600 it is probable that one quarter of Brazil's population was negro.

With the changing composition of Brazilian society, education remained classical and elitist (Toward, 1966). Mem de Sa was impressed with how the Jesuits used a variety of methodological and pedagogical techniques, being a *letrado* himself. The Jesuits stressed the spirit of competition. Memory and repetition were hallmarks as were planning, review and organization. Patience was one of their greatest virtues. In fact, the three pillars of Jesuit education were: planning, adaptability and curriculum emphasizing classic literature (Ulich, 1950). Jesuits were also concerned with religious instruction and literacy training for children. Training in their *colegios* was dogmatic, authoritarian, and abstract. Rote learning and encyclopedism prevailed. Education did not serve upward social mobility, rather it perpetuated the elite cultural values of Brazilian colonial society (Haussman & Harr, 1978). Further evidence of elitism and authoritarian social institutions was that all Jesuit education was conducted in church Latin. For everyday activities, the native language was utilized in bilingual pedagogies. Jesuit education did not encourage the study of new problems, such as how the vernacular of both cultures in contact was changing each language and culture (Teixera, 1979). Classic and conservative culture, not creative understanding with constructive elements, prevailed. This education philosophy helped the Jesuits serve the Church while serving as an instrument of Counter-Reformation and rigid state organization. These early Jesuit schools allowed the Portuguese vernacular to be spoken during recess and on holidays (Teixera, 1979).

SPANISH REIGNS ON PORTUGAL & BRAZIL

The Portuguese system of administrative control was revised after Spain took the reins in 1580. Rodrigo Vasquez de Arce, a noted Spanish jurist, was selected to report on the state of Portugal's administrative affairs. He noted in his first report that the *letrados* were poorly trained. He also suggested judicial reform by expanding the duties of a single *ouvidor-geral* into a High Court of Brazil (*Relacao da Bahia*) with ten magistrates. This was a complement to the Spanish *audiencia*, and set up residency in 1609 while Portugal was technically ruled by Spain. One extremely significant hegemonic outcome was that the class of *letrados*, not the knights or *fidalgos*, were those selected to serve on the *Relacao*. There was an occasional overlap.

Another study indicates that the degree of continuity between the *ouvidores gerais*, chief magistrates of the *Relacao*, and their successors in terms of education was striking. Throughout the sixteenth century, the *letrados* had usurped the traditional nobility of military and landed aristocracy in various royal councils. One observer, Antonio Vieira, believed that *letrados* knew too much and intellectualized things so far as to make action impossible; the aristocrats or *idiotas* could act with speed but usually did so without wisdom. Thus the best solution was a mix of the two (Schwartz, 1973). Requirements for university matriculation and royal employment excluded men of certain backgrounds. New Christians and Moors were prevented from entry to assure a pure, orthodox, and politically loyal elite. In addition, the key to a career in royal service lay in a university law degree (Schwartz, 1973).

Colonial Brazil viewed the meaning of education as a major social status as well as cultural capital. One researcher found that:

Education was valued as a cultural accomplishment requisite of every Brazilian who wished to have a prominent position in politics or administration. The humanistic learning acquired in the Jesuit colleges

gave adequate training and assured young upper-class Brazilians of their social status. Those who had the opportunity to study in Europe and bring back the latest ideas of the Continent to Brazil were just that much ahead of the others in training and prestige. Since only the sons of the aristocracy could afford schooling and since an education guaranteed social position, Brazilian students during the colonial epoch were, by definition, the privileged few, members of the elite, and future leaders of the colony (Myhr, n.d.).

Private commercial enterprise developed alongside an elaborate governmental bureaucracy. The functionaries of soldiers, nobles, and educated *letrados* of the bureaucracy accompanied commerce and the institution of slavery in establishing an empire that lasted well into the 19th century. Portugal did everything possible to prevent autonomous development in Brazil. Trying to foreclose some opportunities in favor of their own ethnicity, Portugal closed frontiers and insisted that all civil servants should be Portuguese; it monopolized trade and denied its new lands the right to have factories, print shops, or universities. Slavery provided a labor force, near-annihilation of the native population removed all obstacles to complete occupation, and miscegenation served the growth of population (Teixera, 1979). In practice, Portugal lacked sufficient personnel to carry out all the policies that were codified in law or past practices.

Until symptoms of unrest in Portugal arose in opposition to the excessively formal mode of instruction, education's basic concern was for safeguarding the status quo. A general movement to reform Latin grammar began. This was accompanied by an increase in the utilization of Portuguese vernacular for the purpose of promoting a better understanding of Portuguese and Brazilian societies. Due to the development of science and the transition from ecclesiastic life to secular life, concepts already prevailing in some European nations gave rise to a new intellectual elite. The leading spokesman for a new elite was the Marquis de Pombal. Dom Jose I had appointed him Prime Minister to carry out radical reform in economics, education, and culture in a very broad sense (Boxer, 1969). One of the first things he did was expel the Jesuits in 1759. This created a great vacuum in Brazilian primary and secondary education. Yet it did pave the way for a secular education system to find tradition in advance of many other Latin American countries.

One scholar has suggested that the stages of Brazilian colonial history became dampened by the enemy of real progress—the feudal economic system—found similar effects of the educational system (Kuznesoff). The mass of people, marginal factors in the plantation economies, were left untouched by luxury, cultural splendor, or education status. Colonial Brazil's perspective was that:

...only the dominant minority prospered and progressed, while the masses were always left outside looking in, a mere reservoir of manpower. And the gap between the elite and the oppressed became still more unbridgeable because of the continuing absence of a middle class, whose emergence was prevented by the lack of social mobility (Castro, 1969).

It should now be apparent that the lack of a meaningful and equitable education for the masses was both a cause and a result of the lack of social mobility. Gaps widened between masters and slaves. Much of Brazil's inequities could be attributed to the archaic culture and the enormous gap between the educated few and the illiterate many.

HORIZONS

Striking similarities and contrasts may be understood chronologically across these centuries as a changing, developing set of multiple social institutions unique in time and place, but similar in ideologies from western Europe though having major Arabic impressions and transformations during their constructive infancies. Power manifested through higher education may be seen more clearly from the above-cross cultural examination. When origins are accurately portrayed, the inter-related similarities are more salient concerning the establishment of higher education and its original purposes and policies from historic cultural contacts.

Through a better understanding of others comes another perspective of ourselves. Global and international understandings are vital to connecting multicultural with global education. Global education looks at the interrelatedness of all while multicultural education tends to look at the overdue expansions and significance within multicultural society. Education must prepare the next generation of students and scholars for continued global interdependence. A study on the university in particular focuses on diversity and commonality. Policy makers must consider social and reform movements that enlighten us to ourselves and others. As the Association for Supervision and Curriculum Development suggested in 1991, global education is part of a social movement. Understanding the

origins of social and reform movements helps heighten levels of awareness for enlightened leaders in today's complex world. Harmony and unity may be enhanced by multicultural and multilingual projects in the social sciences, citizenship, humanities and comparative studies as in the study of the university itself. All educators have some responsibility to act in today's diverse world for a more just and secure world of tomorrow, preparing the next generation to continue constructing a more equitable world.

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DONOR MOTIVATION AND WOMEN'S ATHLETICS**Robin Hardin***University of Tennessee***Andrea Piercy***University of Tennessee***Gi-Yong Koo***University of Tennessee***ABSTRACT**

NCAA Football Bowl Subdivision institutions derive more than 22% of their revenue from donations. The primary reasons as to why people financially support collegiate athletics have been associated with football and men's basketball. Increasing costs have necessitated the need to explore different revenue options though. The purpose of this study is to gain a better understanding of how colleges can increase funding based on people's desire to support women's athletics. An examination of donors to women's athletics at a major university in the Southeast was conducted to explore this issue. A five-factor model emerged from the data analysis. The desire to enhance women's athletics was motivating factor along with social, business, family and obligation. Women's athletics supporters can provide a potentially new base of donors for collegiate athletic departments. Athletic departments are continually searching for new streams for revenue and this seems to be an untapped source of revenue.

INTRODUCTION

The 2004 Voluntary Support of Education Report found contributions to colleges and universities in the United States increased from \$19.5 billion in 2000 to \$24.4 billion in 2004 (Tsotsou, 2007). Athletic departments across the country generate some of these donations to provide the financial support for their operations. The fundraising supports student-athlete scholarships, administrative and operational expenses and the many building projects geared toward athletics. The high profile collegiate sports are football and men's basketball and in turn are primarily responsible for the donations received by athletic departments. Members of the NCAA's Football Bowl Subdivision institutions rely heavily on donations to remain financially viable as more than 22% of revenue comes in the form of cash contributions (Fulks, 2008).

Collegiate athletic departments are faced with rapidly increasing expenses, and an understanding of donor interests and attitudes is critical to successful identification, cultivation, and solicitation of donors (Mahony, Gladden, & Funk, 2003). The NCAA reported expenses increased 23% percent from 2004 to 2006 at Football Bowl Subdivision institutions, whereas, revenues only increased 16% during that same period. (Fulks, 2008).

The sports believed to be the ones responsible for creating donor interest are football and men's basketball. One area that seems to be overlooked though is women's sports and the possible role they may play in cultivating donors. The advent of Title IX in 1972 drastically increased participation for females in sport. More than 42% of all collegiate student-athletes are female as the number of female student-athletes has more than doubled in the past 25 years. There were fewer than 75,000 female student-athletes participating in the NCAA in 1981-82 but that number increased to more than 170,000 in 2005-06. There also been a rise in the number of teams sponsored by NCAA institutions as that number as grown from just more than 4,700 in 1981-82 to more than 9,000 in 2005-06 (Bracken, 2007). College participation will only continue to grow as growth at the scholastic level has been strong as well. There were less than 300,000 girls participating in high school sports in 1972 but that that number exceeded 3 million in 2007 (NFHS Participation Figures, 2008).

Recipients who reaped the benefits of Title IX in the 1970s and 1980s now have daughters who are participating in sports. Females were not always accepted and are still not in some areas of sport. Now, people who have daughters are encouraging them to participate in sport, and it is not taboo for a girl or woman to participate in sports. A reason for that is the people who are starting families of their own always had the effects of Title IX as a part of their life and do not see any reason why girls and women should not compete in sports. This acceptance has led to increased participation and interest in women's collegiate sports. Thus, it seems to be an area ripe to cultivate donations but one that appears overlooked.

Donations in women's collegiate athletics lag far behind that of men as shown by one Football Bowl Subdivision university that maintains separate offices in terms of development. The donations for the men were more than \$20 million, whereas, the amount for the women was \$1.2 million (University of Tennessee Athletics Board, 2008). This may show that using women's sports for cultivating donors is being underutilized. Understanding why people donate to women's athletics is important. The people who benefited from Title IX are now in the work force and have the ability to make financial contributions to athletic departments.

COLLEGE ATHLETIC DONOR MOTIVATIONS

Research in athletic fundraising has been conducted but is still developing and expanding. Early studies were not broad in scope and only focused on a few motivations. Hammersmith (1985) and Isherwood (1986) found tangible benefits such as premium seating, premium parking and recognition as motivations to donate. Enhancing the image of the university and athletic program and contributing to the academic success of student-athletes also emerged as motives (Comstock, 1988 & Hammersmith, 1985).

The first comprehensive study of donor motivations was conducted using the Athletics Contributions Questionnaire (ACQ) (Billing, Holt, & Smith, 1985). This study identified four factors as to why people donated to collegiate athletics: a) philanthropic, b) social, c) success, and d) benefits. Staurowsky, Parkhouse, and Sachs (1996) modified the original ACQ and developed Athletics Contributions Questionnaire Revised Edition II (ACQUIRE II). This study explored the four motives identified by Billing et al. (1985) and examined the dimensions of curiosity (interest in athletics) and power (influence over decisions and operations). The factor analysis resulted in a six-factor model. Curiosity was not a factor but the success factor identified by Billing et al. (1985) emerged as two factors. The contribution of this study to the literature was realizing success can be viewed and defined in different ways. So, success was split into two factors or motives with success I relating to success of the institution and success II relating to success of athletics and student-athletes.

Verner, Hecht, and Fansler (1998) then developed the Motivation for Athletic Donors (MAD-I) instrument. These researchers found 11 motivational factors. Previously identified factors from the research of Billing et al. (1995) and Staurowsky et al. (1996) emerged. Two factors that did emerge that had not been previously identified were benefits, such as recognition and access to donor-only events, and information. Mahony, Gladden, and Funk (2003) developed an instrument to explore 12 donor motivations based on previous research. This study subdivided benefits into three categories and success into four categories. Motivations added to the instrument were nostalgia and psychological commitment. Gladden, Mahony, and Apostolopoulou (2005) used an open-ended question format to determine what motivates someone to donate to collegiate athletics. The most common reason cited was to support and to improve athletic programs as 61.8% of the respondents mentioned this. Ticket-oriented motivations were mentioned by 49.8% of the respondents, and helping student-athletes was the third identified category at 29.7% (Gladden, Mahony, & Apostolopoulou, 2005).

The most recent in this line of inquiry developed a four-factor model in examining donor motivations (Tsotsou, 2007). The factors were a) belongingness or affiliation with the athletic department or institution; b) trusting which is believing in the mission of the institution; c) social-practical which is making friends and receiving tangible benefits, and d) prestige or wanting to help create a high-quality and visible athletic department or institution.

RESEARCH QUESTIONS

Research questions were developed based on the previous studies and the influence that Title IX and the increase in female participation in collegiate sport. The previous studies used an array of samples and examined donor motivations for athletic departments as a whole. The current research takes advantage of the separate athletic departments at a Division I Football Bowl Subdivision university to examine specifically the motivations for donating to women's athletics. Two research questions emerged for this study: 1) Who donates to collegiate women's athletics? and 2) Why do people donate to women's collegiate athletics?

METHODOLOGY

Instrument Design

The motives of why donors contribute money to a Division I Football Bowl Subdivision university were consistent to the modified surveys of the studies from Gladden, Mahony, and Apostolopoulou (2005) and Mahony,

Gladden, and Funk (2003). A modified scale with nine motives was developed from previous research to explore why people donate to women's athletics and included in this was the motive of supporting women's athletics. Participants were asked to answer to specific statements with the question of "Why do you contribute to the Women's Athletics Department at the *NAME* (University)..." A seven-point likert-type scale anchored by 1=strongly disagree and 7=strongly agree was used. Demographic questions were placed at the end of the questionnaire.

Data Collection

The subjects chosen for this study were donors at a Division I Football Bowl Subdivision university in the Southeastern region of the United States. This university has separate fundraising departments for men's athletics and women's athletics so it provided a unique opportunity to examine donors specifically tied to women's sports. The donor base for women's athletics was approximately 6,300 and of those, 2,089 were contacted via e-mail to complete a self-administered online questionnaire. Only those donors that had provided e-mail addresses were used in the sample. Members of the sample were contacted via e-mail and were invited to complete an online questionnaire on their experience as a donor for the women's athletics department. Not all e-mails were valid as 401 were returned. A reminder e-mail was sent to the 1,688 valid e-mails 10 days after the initial e-mail. The result was 522 valid responses.

Data Analysis

The analysis of the data from the donor motivation survey was completed using the SPSS 16.0 computer program. First, descriptive statistics was conducted to answer who donates to collegiate women's athletics. Second, an exploratory factor analysis (EFA) was employed to identify the underlying structure of a relatively large set of donor motivation variables and to determine if Women's Athletics Enhancement is a motivational factor for people donating to women's collegiate athletics. A correlation analysis of the motivation factors was addressed to examine associations among the donor motives.

RESULTS

Demographic Profile

The mean age of respondents that participated in the questionnaire was 57.17, with 63.2% respondents being female. Donors that are women's basketball season-ticket holders was high, as 89.3% of the respondents purchased season tickets. The questionnaire found that 58.4% were not university alumni and that only 28.2% donated to the men's athletics department.

Donor Motives

A five-factor model was extracted from the variables with 70.49% of the variance ranging from 27.63% to 7.67%. The five factors were 1) women's athletics enhancement, 2) social, 3) business, 4) family, and 5) obligation.

Women's athletics enhancement accounted for the first factor with a 27.36% variance. This factor examines the belief that donors give to the women's athletics department because it is important for women to compete in collegiate athletics and should be given the opportunity to so do. Two other factors collapsed into the category as well with those being tradition and affiliation. This shows people want to be associated with women's athletics at this university and part of that may be due to the tradition of the program.

The second factor is *social*, which explained 15.21% of the variance. This factor exemplifies the importance of being able to interact with other donors at athletic events and friendships that may be forged due to common interests. The third factor is *business*, which accounted for 10.91% of the variance. *Business* explores the importance of enhancing the business opportunities of the donors. The fourth factor is *family*, which identified 9.35% of the variance. *Family* refers to the importance of being able to spend time with your family at athletic events and sharing common interests. The fifth factor was obligation which accounted for 7.67% of the variance. This dealt with the duty a person felt to support the university and women's athletics at it.

DISCUSSION

The most significant finding is that women's athletic enhancement is a motivating factor in making financial contributions to a collegiate athletic program. Football and men's basketball have long been the cash cows in terms of cultivating donors and women's athletics have been overlooked. But there is a desire by many people to support women's athletics because it is simply the right thing to do, and they want to give females the opportunity to compete in collegiate athletics.

Development personnel should take advantage of this and look for donors who benefited from the implementation of Title IX. Female collegiate athletes struggled for acceptance and equality during the 1970s and 1980s. Those people are now in position financially to help those currently competing in collegiate athletics. The potential donors know the prejudices they faced in lack of equality and opportunity and want to provide a positive experience for current student-athletes. This is evident in the findings that females are more likely to make a financial contribution based on this motive. Development personnel should use this to their advantage and not just concentrate on marketing the tangible items a donor may receive for financially supporting collegiate athletics.

The collapsing of the factors of affiliation and tradition into this one factor shows that people want to be associated with women's athletics and not just the high-profile sports of football and men's basketball. This should be used as well in developing marketing campaigns geared toward specifically donating to help women's athletics. Emphasizing the past success of the program would be beneficial as well. It is clear though that people recognize women's athletics as a separate entity and perhaps a development representative should focus solely on cultivating donors for women's athletics.

The factor of obligation plays a role in this as well. People feel it is their obligation or duty to support women's athletics. These respondents could be the very people who fought for the acceptance of women's athletics at the collegiate level. They do not want current student-athletes to face the same hardships they faced. Girls are participating in record numbers in youth sports, and their parents should be thankful for Title IX in allowing this happen. Those people should be targeted to keep the momentum Title IX has brought for not only increasing opportunities but for the acceptance for girls and women participating in sport.

Donors should be made aware of how important it is to help create opportunities for women to participate in intercollegiate athletics, and this will create more donors who want to give. The women's athletics department staff is a key component for this goal to be successful. This entails that all departments should be able to communicate and work diligently to provide the best for the student-athletes. The support-system for student-athletes includes academic affairs, sports medicine, and strength and conditioning. All of these services are important but they all cost money. The need for these services should be emphasized as well.

The factors of social, business and family are not new to the donor motivation literature but should not be overlooked either. Development personnel should take advantage of the tradition of a father taking his son to watch a sporting event and turn that into a mother or father taking her or his daughter to a sporting event. The same could be true for friends who attend football games together in that the same opportunities exist at women's athletic events. Females were significantly higher than males on the social aspects of supporting women's athletics. So, opportunities should be created that women can spend time together watching sports and enjoying social interaction just as much as men. The social factor can also be emphasized in that people who share a passion for women's athletics can be brought together. Business development can be gained as well for associating a business with a winning program or taking clients or associates who enjoy women's athletics to events. These factors show that women's athletics are like men's athletics in that people have the same reason to support them financially. The difference is the team and program and that women's athletics are not some sort of foreign concept. This is evident in the finding of comparing people who donate to men's and women's or women's only. There was an overall difference in that motives for people who donate to women's athletics only. This is understandable in that they have made the choice to financially support only women's athletics. The finding that supports the notion that women's athletics are certainly acceptable in that there were no differences in the individual motives. People want to enhance women's athletics whether or not they financially support men's athletics.

Women's athletics supporters can provide a potentially new base of donors for collegiate athletic departments. Athletic departments are continually searching for new streams for revenue and this seems to be an untapped source of revenue. Women's collegiate athletics are not going away, and development personnel should take advantage of their growing fan base.

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LOOKING FORWARD, LOOKING BACK: UNDERSTANDING WOMEN'S MENTORSHIP IN DOCTORAL PROGRAMS, UNDERSTANDING MYSELF

Debra Gentry

University of Southern Mississippi

Thelma Roberson

University of Southern Mississippi

Bona Aidoo

University of Southern Mississippi

Melissa Wright

University of Southern Mississippi

ABSTRACT

This multiple case study examined women's perceptions of their mentoring experiences during doctoral studies at a large, Midwestern research university. Eleven women representing academic departments in comparative literature, history, education, economics, psychology, business, chemistry, and biogeochemistry, participated in the research. Study findings indicated that less than half of the women believed they had a true mentoring relationship in their doctoral programs. The women who had mentoring relationships with their advisors or program chairs perceived that they would be well-prepared to enter academic or research careers, those who did not have proper mentoring perceived that they might be disadvantaged once they entered the academic or research marketplace. All research participants indicated that good mentors were ones who personally cared about them as individuals, yet also promoted their academic success and prepared them for professional roles. The researcher used the findings to discuss her own experiences as an early professional.

INTRODUCTION

This research examined the importance of women's relationships in support of doctoral success and progress, in particular the relationship between the student and advisor or mentor. Findings from this study suggest that for women doctoral students, regardless of field or department, relationships and connections with others were central to their progress, identity development and professional development, and emotional well-being in graduate school. One relationship in particular that could promote personal growth and professional identity, or cause disappointment and despair, was the relationship that a woman developed with her main advisor or mentor. All 11 women interviewed for this research discussed their relationships with their advisor/mentor. The term advisor/mentor is used because some women were fortunate to have developed a mentoring relationship with a faculty member, characterized by mutual caring and appreciation, trust, personal growth, academic and professional development, and promotion of the student's best interests. The majority of the women in this study, however, had relationships with their main advisors that were characterized as more formal, helpful in terms of information-giving and general advising, but lacking in personal care for the student and lacking in preparation for professional roles as faculty members. Two of the women research participants characterized their relationships with their main advisors as uncaring, acrimonious, and destructive.

LITERATURE

In 1880, women comprised only 6% of total doctoral degrees in the United States (Solomon, 1985). Between 1880 and 1970, the number of women receiving doctoral degrees rose and fell. Since 1970, however, the number of women enrolling in and completing doctoral degrees has steadily increased. However, in spite of the increasing number of women entering doctoral programs, the completion rate for women in doctoral programs is 55% (Council of Graduate Schools, 2008). Thus, the pipeline for women entering professional academic or research positions is reduced. Of the women that enter tenure track faculty positions, approximately 67% earn tenure (King, 2006). Research has shown that many factors influencing the socialization process (Clark and Corcan, 1986; Golde, 1998; Golde & Dore, 2001; Weidman, Twale & Stein, 2001) of women into their departments or colleges can play a major

role in their decision to remain in their programs and complete their degrees, and part of the socialization process is mentoring from faculty members. Graduate school socialization is the process whereby students gain the knowledge, skills, and values necessary for entry into a professional career that requires advanced or specialized knowledge and/or skill. Socialization of graduate students occurs through classroom learning, relationships with faculty and peers, and involvement in the life of the department and the larger professional community (Weidman, Twale, & Stein, 2001). Relationships with faculty members play an important role in socializing students, and in particular, a faculty mentor serves as a key socializing agent in promoting appropriate cognitive skills, appropriate attitudes toward research and scholarship, and other field specific values (Clark & Corcoran, 1986).

The Role of the Mentor

Many individuals who are now successful in their respective professions will likely mention that their success is partly or directly attributable to mentoring relationships with senior professionals who guided them (Ragins & Kram, 2007).

Mentoring is a personal relationship in which a more experienced faculty member or professional acts as a guide, role model, teacher or sponsor to a less experienced graduate student or junior colleague. The mentor typically provides the protégé with knowledge, advice, counsel, academic or professional challenge, and support to enable the protégé to become a full, participating, and successful member of a particular profession (Allen & Eby, 2007; Johnson & Huwe, 2003). Mentoring is also viewed as a tool to promote such norms as collegiality and collaboration and consistently used to improve student learning (Rayle, Bordes, Zapata, Arrendondo, Rutter, & Howard, 2006).

Mentoring has many benefits for the early professional including: increased scholarly productivity (Hollingsworth & Fassinger, 2002), development of professional skills and behaviors (Johnson, 2007), networking with other colleagues in the discipline (Johnson & Huwe, 2003), professional confidence, and satisfaction with the program and the institution as a whole (Allen & Eby, 2007).

A good mentor is one that also offers support by providing opportunities for growth in self-awareness and identity. One might assume that this is not even an issue at the doctoral level because students would have already resolved any identity crises. However, feminist literature addresses the importance of relationships as catalysts for women's identity development (Belenky, Goldberger, & Tarule, 1986; Chodorow, 1974; Gilligan, 1993; Josselson, 1992, 1996; Miller & Stiver, 1997;) yet it is not often addressed specifically in relation to the role of mentor.

Women, in particular, look for certain qualities or mentor characteristics they find important in a mentoring relationship (Johnson, 2007) these include having a mentor that is caring, accepting, affirming, and empathetic; having a mentor that balances praise with criticism; having a mutually supportive relationship that fosters growth and positive feelings; having a mentoring relationship that is ongoing.

Interpersonal relationships, such as mentoring between student and faculty member, are important to women's progress in graduate school (Johnson, 2007) and if relationships are not developed early in the graduate school program this can lead to feeling lonely and isolated in the academic setting, which may lead to student attrition if not addressed. And, while mentoring relationships are typically viewed positively they, like other relationships, may also suffer from conflict or dysfunction. Negative mentoring can lead to complaints of neglect or abandonment, complaints of power imbalance and abuse, complaints of sexual harassment, and complaints of mentor incompetence (Fallow & Johnson, 2000).

RESEARCH METHOD

The method of inquiry for this study was qualitative case study because the research was an exploration of a bounded system (Stake, 1995) of multiple cases involving in-depth data collection and multiple sources of information. This multiple case study was bounded by both time and place with data collection occurring during a period of seven months at a large Midwestern research university.

Research Questions

This research illustrates the issues surrounding women's experiences as doctoral students. In particular, this research considered how women perceived their relationships with their main advisor, or mentor, in socializing them into their professional communities and preparing them for professional roles. The following questions were investigated: What relationships were important to women throughout their doctoral studies? How was the

relationship with a main advisor or mentor characterized? Based on their experiences with their main advisor or mentor, did the women perceive they were well-prepared for their professional roles?

Participants

As a multiple case study, the goal was to provide a reasonably in-depth view of a cross-section of women's experiences during their doctoral studies. To accomplish this, the researcher was given permission to obtain names from the graduate school; 33 names of women from different departments across the campus of a Midwestern university were obtained. These students were contacted via e-mail asking for voluntary participation in the study, along with a complete description of the study. Of the 33 women contacted, 16 women replied, indicating their interest in the study. These 16 were narrowed down to the 11 participants who best represented departments, age groups, and year in school. All participants met the following criteria: (1) the women were enrolled in a doctoral degree program; and (2) they had to be in at least their second year of study by the time of the interviews. The 11 women selected for the study represented the following eight different departments across campus: comparative literature, education, history, psychology, chemistry, business, geology, and economics. The participants' ages ranged from mid-twenties to late thirties.

Data Collection

Audio-taped, face-to-face interviews, observations, written notes, and the researcher's own personal journal of reflections about each participant were used. Each participant was interviewed twice, with each interview lasting approximately one-three hours, yielding a total of 22 interviews. Interviews were audio-taped and professionally transcribed, yielding approximately 400 pages of narrative text. The first interview with each participant was conducted on a relatively unstructured basis. The second interviews were semi-structured and designed to elaborate on themes found in the first interviews. Written notes of both observations and the researcher's own analysis of the women's stories were kept by the researcher.

Data Analysis

Data collection occurred during the spring and summer semesters of the academic year. After the interviews were transcribed, each narrative was read three times. On the third read-through, general ideas about what the participants were saying were written down. Data were hand-coded, with important passages and emerging themes highlighted. Emerging themes were color-coded. Color-coded themes, written notes, and observations were then used to develop a broad summary of the findings. The narratives were then separated into coded categories. The categories followed two themes: (1) socialization experiences and, (2) relational experiences. The pieces of text were sorted into the two categories and re-read to ensure that they had been placed in the broad categories properly. After sorting the data into the broad categories, the passages were read again to look for correspondence and pattern (Stake, 1995). Correspondence is defined as "the search for meaning [which is] often . . . a search for consistency within certain conditions" (p. 78), while pattern is seen as elements of the case study that may be drawn from the research questions or from prior research. At this point, more specific categories, narrower in scope, were developed. Conclusions were then drawn about the participants' experiences in their respective doctoral programs.

FINDINGS

Findings are categorized in the following areas, and personal quotes are used to highlight themes.

Role of the Mentor for Academic Success

Several of the women in this study talked about the key role their mentor played in their graduate school success. Abby, a Ph.D candidate in the department of History, insisted that her advisor/mentor was critical to her continuance and success as a graduate student. Abby said:

If you get an advisor that is good, I think that your life is so much better. Honestly, I think one of the reasons I am still here is because I have a great advisor. I think it would have been difficult for me to make it if I had someone who didn't care, or didn't encourage me. People who drop out have advisors who are very hands off and don't

protect their progress. It seems that people who stick around have proactive advisors who are willing to do the nurturing and stuff like that.

Role of the Mentor for Professional Growth

Beyond the role of helping students achieve success in graduate school, mentoring relationships also played a key role in career development and advancement. Like Abby, one woman in the Chemistry department was quite pleased about her relationship with her mentor. While Lynn was less focused on the warm and caring aspects of her relationship, she was vocal about his professional guidance. Lynn said:

Professionally, my advisor has been a good mentor. Well, he's been really good at offering opportunities to grow professionally, to meet faculty who come to the department or faculty candidates who interview, so that I get to meet them and start forming professional contacts and so that I learn how to speak about my own research to other scientists. Like I mentioned, he's really good about asking me to give presentations at local, regional and national conferences and helps me write the articles, instead of him just doing it all. Professionally he has definitely been important in my progression as a scientist here in grad school.

Mentoring with Care

While several of the women talked about the role of mentor as professional advocate, nine of the eleven women focused their discussion more on mentoring as a caring role, one that is a close, personal relationship. Anna, a doctoral student in the social sciences, spoke very fondly of the professor she took her first graduate class with.

The one who was always there for me was the man I took my first [graduate] course from. He was the person who always encouraged, was always there with an ear to listen. I could pick up the phone and call him anytime. He always tried to be as open and honest as he could about what to expect and things like that. He was the person who has just always been nice about everything...I always make it a point to see him when I go home from school. You know, he's just always listened very carefully to all my concerns and complaints and was always realistic. He'd say, 'It's really tough, isn't it?' The thing is, his expectations and methods spoke to me. They were so clear, and I just relished that. I knew exactly what was expected of me. And, he liked me and I liked him. We were friends....but he also helped me get where I needed to go.

Importance of Feedback for Progress

The literature lists several important aspects of the mentor's role in the life of a graduate student including providing feedback, encouragement, and recognition. Interestingly, over half of the women emphasized the lack of feedback, encouragement, and recognition as a hindrance to their progress. A woman in the Chemistry department, Mindy, often felt a sense of discouragement throughout her program because of circumstances surrounding her relationship with her main advisor, she commented:

[sometimes you] just felt like a number. You didn't feel like a person. It was a lack of personal feedback; you didn't get anything else but the grade. And you were constantly reminded that you were not the smartest person in your group...The one comment that was said to me still rings in my ears – 'you did better in your exam than I thought you would.' That was the first and only compliment I ever received from him.

Jenna, also in the Chemistry department, seemed to harbor regret over her relationship with her advisor. She summed up her relationship with him this way:

I think there needs to be more regular individual feedback even if it is a regular weekly appointment...I think it would keep people on track. My advisor will tell you that his philosophy is to give students enough rope so that if they hang themselves, they hang themselves. That's just not a practical approach to me. That's not being a mentor. I think to be a good advisor you can't be like that -- not just for me but for everyone.

Mentoring as Role Modeling

While the women were seeking a supportive and caring mentor they were also looking for role models to help them figure out how to balance professional and personal lives. The women interviewed looked closely at both male and female faculty members to see how they juggled their responsibilities and balanced personal and professional lives. Danielle spoke of a female faculty member in her department whom she admired:

She was actually one of the reasons I came here. I don't work with her, but she still meets with me on a regular basis, just to talk to me about what I want to do, where I want to go. She understands that I don't want to get my degree, then give everything up to have kids. I want to have it all! And it is nice to see her as someone that does have it all.

Lynn appeared less concerned about seeking a female role model, or even a role model in general, but was pleased by the fact that her mentor seemed to go out of his way to offer opportunities to see how other women faculty members managed their lives. Lynn stated:

He is always inviting me and a couple of the other girls out to lunch when visiting professors come, especially if they are women professors. I think this is his way of trying. I think he is aware of the fact that it is nice occasionally for women to have other role models, you know, besides the old guys.

DISCUSSION AND IMPLICATIONS

The women interviewed for this study made it clear that having a proper mentor supported their progress in their doctoral studies, prepared them for their future professional roles, cared about them as individuals, and acted as role model. While the majority of the women did talk about the importance of feedback in an advising or mentoring relationship, most of them also stated that this rarely, if ever, occurred. Or, if feedback was given, it was usually in a negative manner, and nine of the eleven women preferred an advisor or mentor who provided feedback in a constructive, caring way rather than in the manner of criticism.

As a junior faculty member I am now able to look back at the research I conducted and think about the research participants' experiences from a different angle. I was very fortunate in my own doctoral program to have a caring mentor who helped me hone my academic skills, prepared me for my first professional role, and continues to promote my success. However, I have also realized that once a new faculty member is hired it is also important to have a senior faculty member act as mentor; one that can help in the publishing process, in seeking grant funding and conducting research, as well as protect the junior faculty from carrying a heavy teaching load, or too many administrative duties, or spending too much time on service activities. If junior faculty members are not protected it is very easy to see why the tenure process can become difficult and tenure seemingly out of reach.

Because the role of the mentor or main advisor is so important in doctoral student progress, and later professional roles, it would be wise for coordinators or chairs of doctoral programs to consider the following: 1) use research findings to develop workshops on preparing faculty to be positive mentors and role models, 2) effectively pair students with proper mentors and advisors and ensure students are well-matched with faculty interests, 3) socialize students early into the department through orientation and workshops which address the importance of building relationships with faculty members and working with them on research projects of mutual interest, 4) provide students with guidance in seeking out faculty members and asking for constructive feedback, yet also prepare them to accept criticism as a way to develop professionally and, 5) prepare doctoral students to make an educated choice about their first employment offer as a faculty member and to look for an institution that is an appropriate fit, as well as one that offers mentoring opportunities for junior faculty.

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FOR-PROFIT EDUCATION PARTNERS AND THE SPECTACLE OF GRADUATE-LEVEL EDUCATION

Julie R. Grady

Arkansas State University

ABSTRACT

This manuscript presents an analysis of the initial efforts to redesign a graduate-level program during a partnership between a for-profit company and a public university education department. Murray Edelman's (1988) theory of political spectacle and Mary Lee Smith's (2004) analysis of politics and public schooling policies through the lens of political spectacle theory are invoked to bring attention to the strategies used by a for-profit company as it attempts to guide the packaging and implementation of a university program of study. Specially, the fundamental features of political spectacle theory - the use of ambiguous language, using crisis to instill fear, the limited availability by all to "back-stage" conversations, the disparities regarding who receives tangible and symbolic benefits and rewards, and the over-emphasis on emotionally reacting to challenges - are identified as strategies brought into during the re-design process.

INTRODUCTION

In May 2008, faculty at a School of Education at a state university in the South were notified that one of their Master of Science in Education programs designed for practicing, licensed educators would be offered entirely via an online platform starting in two months. While the time line was unrealistic, the change in the delivery platform for the program did not come as a complete surprise since many of the department's graduate courses are currently offered through online or compressed video in order to accommodate graduate student educators living and working in distant areas of the state and two nearby states. What was entirely unexpected was their new partnership with a for-profit corporation that would provide the online platform by which the courses would be available to their students.

Initially, few details of the revised online Masters program were shared with faculty. Faculty were notified that the university had contracted with a for-profit corporation, Education Alliance, EA (a pseudonym), to support the design and implementation of the courses, manage the public relations for attracting students, and hire and train course "coaches." Faculty were informed that many of their graduate courses typically taught for either a traditional 14-week semester or a condensed, intense 5-week online summer session would need to be re-designed for a 5-week session, most to be offered during the school year when their students teach fulltime. Their potential course enrollments, most of which had previously been limited to approximately 20 students to ensure environments supportive of graduate-level teaching and learning, could soon soar to hundreds, even thousands of students. This new potential enrollment figure required that the design of the courses be scalable to these large numbers. Coaches with Master's degrees but no requisite expertise in the courses they would coach or with teaching graduate classes, would be hired to facilitate the courses for students to earn their Master's degrees. The coaches' responsibilities would consist of (a) socially, emotionally, and technologically supporting the students and (b) clerical responsibilities, including grading student work. These coaches would do all of the grading, with approximately 5-10 minutes a week per student allocated for grading student work, thus the formats for assessments and rubrics had to allow for speedy grading by graders with very limited experience with the course content. Faculty would no longer have face-to-face or even asynchronous online contact with students; instead, students were permitted to communicate only with the coaches. Coaches would then contact the professor if they felt the students' questions or concerns warranted being passed on to the faculty. All courses would be packaged up front and be ready when the course started. And, the program will be offered to these hundreds or thousands of students at a much reduced cost.

Through the summer and fall, as the faculty sat in numerous meetings listening to EA staff, the departmental faculty, and the college administrators discuss the re-designed program and plans for the courses, it became increasingly clear that a spectacle, as described by Mary Lee Smith (2004) with her analysis of politics and public schooling policies in her book *Political Spectacle and the Fate of American Schools*, was unfolding.

BACKGROUND

Mary Lee Smith was inspired by Murray Edelman's writings, *The Symbolic Uses of Politics* (1985) and *Constructing the Political Spectacle* (1988), to explicate the "dramatic public displays that characterize education policy" (p. x). While Smith and Edelman reveal political spectacle at the national level, my concern is on a much smaller scale and may be of no more than minimal interest to educators outside my region (until they find themselves in a similar situation, that is). But, I am inspired to bring attention to the spectacle-like process of the presentation of and support for the revised program as facilitated by Education Alliance because I am committed to the graduate education of the students in our students—the outstanding teachers and administrators in the region who have dedicated their careers to educate the children in the rural and urban communities in the South.

THE THEORY OF POLITICAL SPECTACLE

According to *The Cambridge Dictionary of American English* (2008), a spectacle is "a large public event or show." *Merriam-Webster's Online Dictionary* (2008) defines a spectacle as "an eye-catching or dramatic public display." Smith (2004) reflects these dictionary definitions in her description of the theory of political spectacle:

This theory holds that contemporary politics resemble theater, with directors, stages, casts of actors, narrative plots, and (most importantly) a curtain that separates the action onstage – what the audience has access to – from the backstage, where the real "allocation of values" takes place (p. 11).

Based on Edelman's theory of political spectacle, Smith identifies the fundamental features of political spectacle theory: "symbolic language; casting political actors as leaders, allies, and enemies; dramaturgy (staging, plotting, and costuming); the illusion of rationality; the illusion of democratic participation, disconnection between means and ends; distinguishing the action on stage from the action backstage" (p. 12). Smith and Edelman emphasize the politicians' use of national crisis to gain the public's support for policy, the public's participation in policy-making being a formality rather than purposeful and intellectual, the awarding of symbolic benefits to the public while the politicians reap the tangible benefits, and public views limited to the performance onstage instead of including backstage activities, resulting in distancing the public from the political process.

Smith continues with the spectacle metaphor as she describes the politics of public education: "the plotting, casting, posing, and entertaining that characterize theater have affected and continue to affect public schooling in ways that citizens and scholars should heed" (p. 11). Berliner (2005) extends the application of the theory of political spectacle in his critique of the command of the No Child Left Behind Act of 2001 (NCLB) to place a highly qualified teacher in every classroom. According to Berliner, the events surrounding the mandate and its enforcement are "pure theater with no other purpose than to look like something positive is happening, whereas it is not" (p. 205). Granger (2008) continues with Berliner's emphasis and underscores the feelings of fear instilled in the public through the spectacle performance and the resulting alarming impact of this fear on public education.

The Re-Design the Graduate Program of Study Viewed Through the Lens of Political Spectacle

Features of the spectacle metaphor were not apparent until the faculty began working on their courses and started interacting with the EA staff that the fundamentals of spectacle theory surfaced. My purpose for this manuscript is to borrow several of Smith's and Edelman's elements of spectacle to explicate how political spectacle theory can be a useful framework by which to analyze Education Alliance's presentation of and plans for the redesigned Master's program. Ultimately, my goal is to alert other educators who may soon find themselves in similar situations, so that they may more quickly recognize the performance before them, resist the lure of the onstage spectacle presentation without delay, and work to keep the focus of their courses on meaningful teaching and student learning instead of an illusion of education.

Most of us are accustomed to being part of an audience during a staged production be it our children's cherished 2nd grade holiday production or a professionally performed Broadway play. But, productions need not be formally staged for us; we are part of many other unofficial, informal audiences each day throughout our professional and personal lives. In their analyses, Smith and Edelman include us, the educators, voters and taxpayers, as part of the audience, viewing the production called educational policy-making and politics. For the purpose of my analysis of the EA spectacle, I am going to narrow the audience even more to include the faculty and graduate students at a southern regional state university.

During successful theater productions, the actors' use of language is key to the audience understanding the plot, stirring their emotions, and inciting their imaginations, as the language and action pull the audience into the

drama that unfolds on stage. During political spectacle, language also plays an essential role as the deliberate choice of ambiguous words and metaphorical and symbolic language reel in the public's support for the platforms of political candidates and political policy. The strategic use of language may confuse and scare the public, and encourage citizens to deal with significant issues at reduced intellectual and increased emotional levels (Edelman, 1988).

Smith did not need to peer deeply into the pool of frequently used educational jargon for words that confuse the public because of their ambiguous meanings. She points out abstract terms, such as "high standards" and "accountability" that change meaning based on the context of their use, creating ambiguity for the listening public. It is clear how understandings of the abstract term "quality" teaching, could be ambiguous based on Berliner's examples of diverse interpretations of "quality" teaching simply because of the locations of schools (e.g., rural, inner-city; located in Russia, India, the US). While it is doubtful that individuals have common understandings of these terms, words such as these rally public support despite the lack of concrete details about their meanings provided by politicians using the terms. Smith queries, "Who could be against 'accountability'?" (p. 12). Likewise, who would speak up against a politician's rally cry for "high standards" and "quality teaching"?

Similarly, during meetings between the faculty and the Education Alliance staff, the staff chose ambiguous words to rally support for the re-designed online program. Faculty were reassured that the program would be developed in such a way that it would continue to be "challenging" to students and retain "high quality." When extrapolating from the structure of the EA-supported courses to imagine how the staff would concretely define "high" quality, the imagined definition is in direct and unyielding conflict with my own perceptions of educational quality. Based on my values and beliefs about teaching (from my experiences as a student and 34 years of teaching in grades 6 through graduate school and a Ph.D. in Curriculum and Instruction), I would not consider the quality of a course "high" if it is completely packaged on the front end, if the courses model teaching and assessment practices antithetical to those being professed, if the faculty and students do not interact, if the people facilitating online discussions and grading student work have little to no expertise in the course content or teaching the courses to graduate students, and if the coaches' grading time is limited to approximately 5-10 minutes a week per graduate student.

When challenged by faculty about how the courses could retain a "high quality" under the circumstances of the re-design, the EA staff continued enacting the spectacle by responding to their audience that quality would be ensured because the faculty would have "absolute" control of the re-design of their courses. Once again, the EA staff threw an ambiguous term out to their audience - a word that changes in meaning depending on the listener and the context. Do we all have the same understanding of what "absolute control" means? To me, it means that the teacher will have substantial and critical input into the instructional strategies, the nature of student assessments and grading, and the content of the taught curriculum. When one faculty member recognized the strategy typical of political spectacle to use ambiguous words to gain support from the public, she challenged the EA staff to concretely define "absolute control." The EA staff responded that "absolute control" meant that faculty could make all decisions regarding their instruction, assessment, and curriculum *as long as it fit the EA restrictive format and was scalable to thousands of students*. In reality, the faculty would have limited control of the re-design of their courses: a far cry from "absolute control" as alleged by the EA staff.

The EA staff's definitions of "high quality" and "absolute control" went unchallenged at the university for several months. Who could argue against courses that maintained high quality and of which faculty had absolute control? As long as the meanings of the terms were ambiguous, assumptions were made that all parties shared common definitions. Just as "politicians use ambiguous language to unite a public and create an impression of consensus that does not exist" (Smith, 2004, p. 13), the EA staff attempted to build an atmosphere of "we're all in this together; we're all for high quality, we all want you to have control over your courses; we're allies in this endeavor." However, when challenged, it was very clear that there the faculty were not allies working toward the same goals with the same assumptions about quality and control.

This discussion of the meaning of "absolute control" clarified another element of the theory of political spectacle: the metaphorical curtain that separates the backstage action from the onstage action. The aware public recognizes that politicians make agreements and deals behind the scenes that significantly influence their policies but may never be presented publicly. What audiences are assured of on the political stage does not always reflect the conversations taking place backstage. With regard to faculty having "absolute control" of their courses, onstage EA staff assured them that they would have absolute control. However, backstage, the EA-staff had discussed and agreed on the many ways that the courses were going to be restricted, but this backstage conversation was not intended for the faculty. For a few examples of the preliminary backstage decisions, the EA staff had decided that, regardless of the course, textbooks would not be used; reading assignments would be limited to 80 pages a week; courses would be designed to address five major themes and consist of five modules, one per week; faculty would

present one five-minute (maximum) video presentation each of the five weeks (to introduce the topic for the week); weekly student assessment would include a short “progress monitor” (format: multiple choice, true/false, short answer, yes/no); students would respond to one discussion thread each week; and mid-term and final exams would consist of 20 multiple choice questions. Initially, this information was not shared with the greater faculty audience; instead it was very slowly revealed bit by bit, to individual faculty members as they designed their courses.

Smith reminds us that the stage curtain divides the many conversations about the benefits of educational policy among the few politicians and corporate representatives, from the onstage promises of symbolic benefits to the public audience. Smith directly asks the question, “Who reaps the benefits and who bears the burdens and costs of a policy?” (p. 31). When considering the national student achievement accountability effort, what portion of the general public audience is aware of the significant tangible, material benefits of corporations (e.g., contracts for developing and providing tests, huge profits, promotions) because of accountability testing and test preparation? Meanwhile, the students, parents, and schools are presented with insubstantial symbolic benefits, such as end-of-course test scores that are supposed to reflect student learning (and even that relationship is a stretch according to Nichols & Berliner, 2004).

I would like to pose the same direct question about the onstage and backstage conversations regarding the EA-supported program: Who reaps the tangible, monetary benefits and who gains symbolic rather than concrete benefits? While the program re-design is not being performed on the national stage as is the drama of NCLB school, teacher, and student accountability, the backstage conversations include tangible benefits to EA for their involvement in the partnership. These substantial benefits include their contract with the university, income for the corporation and staff, and staff job security. Meanwhile on the other side of the curtain, students are promised a graduate program and degree that I argue is more symbolic than tangible because of the quality of the re-designed courses. The students will be awarded their symbolic degrees from their involvement in these courses, but will have limited concrete benefits because their gained understanding and knowledge will fall short of reflecting current, 21st century concerns and challenges of schooling, teaching, and learning. Taking this one step further, I wonder how this symbolic degree, earned by these graduate students who are the leaders in their K-12 schools, will impact the schooling of their own students.

With political spectacle, politicians use ambiguous terms and then define a crisis for the public by inferring a disastrous cause-and-effect relationship between the terms, thus establishing unfounded fear among the public. Smith presents two common examples: academic achievement and national defense; academic achievement and economic competitiveness. In other words, our low national test scores compromise our future national security and global economic standing – a huge leap in reasoning even for an imaginative intellect. For another example, Berliner describes the fear instilled in the public when they are told that the quality of teachers, who have immeasurable influence over their children’s futures, is so dreadful that legislation is needed to address this crisis. When crises, whether real or imagined, are defined in this way, the public is more receptive to extreme policies to minimize the crises, and the balanced intellectual/emotional public response tilts towards emotion and away from intellectual problem solving.

While decision-making about this university’s program is not at the level of national security or global economic competitiveness, crises (real or imagined) have been invoked to influence faculty’s responses to the EA-supported program. For example, Crisis 1 presented to the faculty is that educators in their state cannot afford the cost of graduate school and are being denied opportunities to advance their education because of this cost. Hence, they need the less expensive EA-supported program. Crisis 2: there are many educators living out in the rural areas of the state who do not have access to graduate level education and they cannot drive to the campus because they work all day and have families. Therefore, they need the full, online EA-supported program so they can work on graduate classes when it is convenient for them in the evenings and on weekends. Crisis 3 and possibly the most serious: if the university does not take advantage of the EA-supported program, EA will establish programs at nearby colleges causing the university to lose its graduate students to these other schools. Hence, the university needs the EA-supported program or it will lose hundreds of students from the graduate level programs and could eventually lose teaching positions at the university.

I suspect that the response to these crises was what Smith would have predicted. Some faculty were emotionally responsive to the extreme EA-supported program to minimize these crises instead of taking time to intellectually consider alternatives. With regard to Crisis 1, the faculty was not involved with any brainstorming or problem-solving concerning how the current successful program could be offered at a reduce cost for the students to make it more affordable. Nor did the faculty brainstorm ways to expand their own online program (one in which they facilitated the courses and assessed the students themselves). Crisis 2 is not even a legitimate problem – most courses in the graduate programs are already offered online, by compressed video, or at numerous distant campus sites to accommodate the students who live far from the main campus. Despite this not being a justifiable concern,

there was no discussion or problem-solving about how the current online offerings could be expanded without EA involvement. Crisis 3 was the one that sent ripples of fear throughout the faculty. But again, just as with the other crises, the reaction was emotional and there was no intellectual discussion or problem-solving concerning how to balance offering students a stimulating scholarly program of study via face-to-face or through small online classes that faculty facilitate, on the one hand, and, on the other hand, offering large online classes monitored by coaches, thus gaining and retaining many additional students and their tuition monies.

Berliner reminds readers that “political spectacle is also evident when serious problems are ignored and lesser ones addressed” (p. 206). A *great deal* of time has been spent during the past year on the brainstorming, planning, and implementing the EA-supported classes. Faculty have focused their energy and time on adapting their courses to a *prescribed structure* - the restricted platform of EA. I imagine how their current program could have been improved if their commitment had been directed towards much more serious issues such as re-designing their program based on current research about teaching and learning. I imagine the relationships they could have established with their educator-students during their face-to-face and small online classes that could have led to partnerships with them working and learning together. I imagine how they and their educator-students could have co-constructed these courses to better meet their needs and strengthen the relevancy of the content and assignments. I imagine the difference they could make in schooling in the rural and urban Delta schools and beyond – schools that traditionally offer the lowest quality of education for the children. Offering their students, the teachers and administrators of these schools, a symbolic graduate education – an illusion of an education – instead of rich, thought-provoking, and stimulating courses, surely will contribute little to improving schooling in their region.

CONCLUSION

I have attempted to explain in this manuscript how the theory of political spectacle can be useful as a framework to analyze the efforts of a for-profit corporation in reforming graduate level education courses at a regional university. Evidence of the elements of political spectacle as identified by Edelman and Smith have been documented as aspects of the process used by Education Alliance to redesign the courses. Granger (2008) warns educators that “Spectacle is not a mere fleeting visual phenomenon...but rather a powerful and pervasive worldview” (p. 211). He cautions us that spectacle can become the status quo and viewed as common-sense. Granger charges university faculty to:

Turn the simple, consoling myths of spectacle back into the messy, intractable realities of schools and classrooms and the concrete human lives behind the numbers....[Faculty] must be willing to participate as writers, thinkers, and actors in diverse forums...as agents of the public good. They must also strive to create places and spaces for articulate counterpublics, counter texts, and counter praxis, both within and beyond the confine of the classrooms (p. 224).

It is my hope that presenting this analysis to the education public will alert other university faculty so they will quickly recognize and challenge the spectacle of graduate programs supported by for-profit corporations such as Education Alliance. Other university educators - take heed and prepare – for what has happened in this region could be a forewarning of what is yet to come elsewhere.

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FACTORS CONTRIBUTING TO PERCEIVED LEVELS OF STUDENTS STRESS AT THE UNIVERSITY LEVEL

Joy Lynn Muse Brown

University of North Alabama

S. Suzanne Duvall-Zurinsky

University of North Alabama

ABSTRACT

With student retention and student mental health being areas of concern for many universities, stress levels among university students is an area to be explored. The purpose of this study was to evaluate how a university student's extra-curricular activities and major field of study affect a student's level of stress. With this study, the researchers also explored how a student's level of satisfaction with the university affects the student's level of stress.

INTRODUCTION

Stress plays a major role in people's lives. There are stressors which affect people everyday and there are special events which affect people at certain times in their lives. College, for some people, can be a stress-filled experience. Identifying elements which cause stress can be valuable in avoiding or coping with stress. At the university level, many university personnel recognize that college life marks a major transition in a young person's life. Being away from home and planning for the future are big steps for a college student.

The purpose of this study was to evaluate how a student's extra-curricular activities and major field of study affect a student's level of stress. With this study, the research also explored how a student's level of satisfaction with the university affected the student's level of stress.

RESEARCH QUESTIONS

- 1) How do extra-curricular activities affect students' stress?
- 2) How does a student's major field of study affect stress?
- 3) How does a student's satisfaction with the university affect stress?

REVIEW OF RELATED LITERATURE

According to Goldman and Wong, "Stress is a part of everyone's life. A certain amount of stress is to be expected in daily life, but too much stress may be harmful." How a person perceives the stress they encounter may be a factor in how stress affects a person's psychological well-being. Stress may also have an effect on a person's self-esteem and self-concept. Studies have shown that students' perceptions of themselves change as they move through the college experience (Goldman & Wong, 1997).

College is a critical period for young people. It is a time when a student will leave home and enter a new setting where there are different social requirements and new people. This time marks a period of great adjustment and can be very stressful for a student. Lonely feelings and a longing for the former home environment are common feelings for the college student. The transition may be more difficult for some students if they find they are unable to create new relationships or if they do not develop a connection to their new environment. In some situations, disconnected students will blame the campus climate on their feelings of discontent. Studies have shown that students who felt a sense of community also had positive perceptions concerning other areas such as faculty and achievement (Lee, Keough, & Sexton, 2002).

Young adults are facing several developmental tasks that can cause stress. Separating emotionally from family, planning and preparing for future careers, relationships, and family life, and developing a personal set of values are areas which are stressful for young adults. With this transition, young adults must enter new social situations. College students are a good population to study for stress related issues since they are in a situation where they are experiencing a number of developmental transitions (Towbes & Cohen, 1996).

The college years mark a time when young people learn to handle their own freedom, relationships and academic challenges. Although the experiences of black college students are similar to those of white college students, some studies show that there may be additional stressors for a minority student attending an institution where the population is predominately white. Minorities face the same challenges as whites but also may encounter additional stressors such as racism, and academic failure. One study suggested that black women also have unique additional stressors with which to cope that white women do not face (Jones, 2004).

According to Smedley, Myers, and Harrell (1993), who conducted a survey of minority freshman students, "Minority status stresses are closely linked with higher psychological distress and poorer academic performance on the part of ethnic groups". The researchers found that "African and other non-Asian minority students attending predominantly white colleges are less likely to graduate within five years, have lower grade point averages, experience higher attrition rates, and matriculate into graduate programs at lower rates than white students and their counterparts at predominantly black or minority institutions." The study also suggested that African-American students were more likely to perceive the campuses of predominately white institutions with having a less friendly environment where more social isolation was experienced. (Smedley, Meyers, & Harrell, 1993).

In a study of college freshmen, UCLA's Higher Education Research Institute found that the number of freshmen who feel overwhelmed is increasing. Students, upon entering college, now have more responsibilities, such as finding ways to pay for school (Stressed Out, 2000). According to the report, the feeling of being overwhelmed was especially true for women (Reisberg, 2000).

Students and their families experience a great deal of change during the college years. Finances, academic concerns, and social adjustments are just a few of the stressors experienced. High levels of stress can affect a person in many ways from straining their cognitive resources to lowering their immunities to illness. Depression has also been linked to high stress. Challenging classes, problems with time management, financial issues, and difficulties with university policies are all areas which could cause stress but when a student succeeds in making the transition, it has been linked to success in academics, better mental and emotional adjustment, and fewer problems with at-risk behaviors (Skowron, Wester, & Azen, 2004).

According to Kember and Leung, a researcher named Tinto argued that students who were integrated into the college environment socially were more likely to complete their college courses. Many part-time students have other obligations such as family and work so they do not have as much time to become socially integrated into the college community (2004).

Stress is a common factor in most students' lives. Whether the students are part-time or full-time, minority or majority, male or female, all students experience stress. Knowing if there are factors which lead to more stress for students can be an important factor in finding ways to cope with or eliminate certain areas of stress.

METHOD AND RESULTS

From Fall 2002 to Spring 2005, students in AR 170 - Art Appreciation were given a survey concerning their perceived levels of stress. AR 170 is a course which fulfills an elective requirement in the General Studies component of all undergraduate programs at the University of North Alabama, a four-year institution located in northwestern Alabama. The General Studies component consists of the freshman and sophomore level courses which are usually completed by students during the first two years of their four-year college experience. AR 170 is considered a freshman level course. The course is conducted in an auditorium style lecture hall and usually has between 30 and 75 students in each section. It is a popular course and is taken by students from all four colleges at the university. Nine hundred forty-three students (46% male and 54% female) responded to the questionnaire. Of those responses, the majority of the respondents (60%) were freshmen, 23% were sophomore, and 7% were juniors, 7% were seniors, and 3% were special students. Seventy-seven percent of the students surveyed were Caucasian, 12% were African-American, 6% were Asian, 1% was Hispanic or Latino, and 4% were of other origin. Ninety-four percent of the students surveyed were full-time students. All four colleges were represented: Nursing (10%), Business (27%), Arts and Sciences (29%), and Education (17%). Fifteen percent of the students had not yet declared a major.

The students were questioned about their perceived levels of stress with a rating system: low level of stress, some stress, average level of stress, high level of stress, or extremely high level of stress. With each level, a descriptor was given to better define the level. Nine percent of the students reported a low level of stress, 23% reported some stress, 48% perceived their stress to be average, 17% perceived their stress to be high and 3% perceived their stress to be extremely high. When the researcher compared the perceived levels of stress to the students' declared major field of study, the results for each college were similar in their perceived levels of stress. The highest percentage of students with low or some stress were in the College of Business (36%) followed by the

College of Arts and Sciences (33%), the College of Nursing (29%), and the College of Education (26%). Thirty-two percent of students who were undecided in their major perceived themselves to have low or some stress. The highest percentage of students with high or extremely high stress were in the College of Business (23%), in the College of Nursing (21%), or undecided (20%). The lowest percentage of students who reported high or extremely high stress were in the College of Education (14%). Average stress was the highest percentage (41 - 60%) reported by students from all five areas.

Fifty-six percent of the students were not involved in non-academic activities. Fourteen percent of the students were athletes. Two percent were in the university band. Twenty-one percent were in university sponsored activities not related to their major and five percent were in university sponsored activities related to their major. The students not involved in activities (21%) and the athletes (21%) perceived themselves to have the high or extremely high stress while only six percent of the students involved in activities related to their major and ten percent of the students involved in the band perceived themselves to have high or extremely high stress.

Seventy-one percent of the population surveyed was not involved in Greek organizations or in university student organizations. Of the seventy-one percent, twenty percent perceived themselves to be highly stressed or extremely high stressed. Of the eighteen percent of students who responded that they were in a sorority or fraternity, twenty percent perceived themselves to be highly stressed or extremely high stressed while fifteen percent of students involved in other student organizations perceived themselves to be highly stressed or extremely high stressed.

When students were questioned about their hobbies or creative pursuits, the students who responded that they did not have time to engage in any sort of hobbies outside of work and school perceived themselves to be more stressed than students who responded that they participated in hobbies or creative pursuits. Twenty-nine percent of the students who did not engage in hobbies or creative pursuits reported high or extremely high stress levels. Students who participated in less than 4 hours of hobbies or creative pursuits per month also had higher levels of stress (21%). When students had at least 1 hour of hobbies or creative pursuits per week, their levels of stress were not as great (12% high or extremely high) but the percentages of students reporting higher levels of stress increased when the number of hours spent on hobbies or creative pursuits increased to 2-4 hours per week (18% high or extremely high stress), or more than 5 hours per week (17% high or extremely high stress).

Students were asked to rank the university in how well it met their expectations. Seventy-two percent responded that they were satisfied or highly pleased at the level of education they were receiving. Twenty-two percent ranked it as average and five percent responded that the university had not met their needs. Of the five percent who were not satisfied with how well the university met their needs, forty-two percent of the students perceived themselves to be experiencing high or extremely high stress. Of the students who were satisfied or highly pleased with how well the university met their expectations, fifteen percent of the students were experiencing high or extremely high stress.

When comparing the levels of stress to class ranking, sophomores, juniors, seniors, and special students reported the same percentage of students experiencing high or extremely high stress (22%). Eighteen percent of freshmen perceived themselves to be experiencing high or extremely high levels of stress.

Although when comparing ethnic origin/race, the groups all had similar results of 19 - 21% in the area of high and extremely high levels of stress, African American, Asian, and other students had a higher number of responses in the area of low or some stress (39-44%) while Caucasian and Hispanic/Latino students had 28-29% responses in the area of low or some stress.

Males and females were different in their perceptions of stress levels. Forty percent of the males reported low or some stress and twenty-one percent reported high or extremely high stress. Females had lower percentages in both areas with twenty-six percent low or some stress and eighteen percent high or extremely high stress. Fifty-five percent of the females reported average stress levels while the male report of average stress levels was much lower at thirty-nine percent.

Sixty-two percent of the students were single. Six percent were married, less than one percent were divorced, and thirty-one percent were engaged or in a committed relationship. Two of the four divorced students reported high levels of stress. Among the other groups, engaged students reported the highest levels of stress at twenty-seven percent while students who were single but in a committed relationship reported had a lower percentage of students who perceived their levels of stress to be high or extremely high (15%). Married and single students had similar percentages of high stress levels with twenty and twenty-one percent.

When comparing part-time to full-time students, their levels of stress were very similar with twenty-two percent of part-time and twenty percent of full-time students reporting high or extremely high levels of stress. Special students reported a slightly higher percentage of students with high or extremely high levels of stress (29%).

When students were asked to rate their current level of satisfaction with life, nineteen percent reported being extremely happy, forty-eight percent reported that it was good, twenty-seven percent reported that it was average with good days and bad days, five percent reported it was somewhat poor and five students (less than 1%) reported it was extremely bad. Seven percent of the students who were extremely happy were experiencing high stress. Thirty-two percent of the students who felt their life was average reported high or extremely high levels of stress. Seventy-seven percent of the students who reported a somewhat poor level of satisfaction with their life and one hundred percent of the students who reported an extremely bad level of satisfaction with their life reported high or extreme levels so stress.

Of the students who were extremely happy with their life, thirty-three percent were happy with all areas of their life and the rest believed they could make changes in the areas they were not satisfied. Six percent of the students who believed their lives were good, twenty-seven percent of the students who believed their lives were average, and forty-nine percent of the students who believed their lives were somewhat poor were not sure how to change the areas they did not like or felt they had little hope of changing those areas. Three of the five students who perceived life as bad were not sure how to change and two of the five students were hopeful that they could make changes in the areas of dissatisfaction in their lives.

When comparing levels of stress to ability to make changes, all of the students who reported low levels of stress were happy with all the areas of their lives or believed they could make changes in the areas that they were dissatisfied. Twenty-two percent of the students who had some stress, thirty-three percent of the students who had average stress, thirty-three percent of the students who had high stress, and eleven percent of the students who had extremely high stress either felt that they had no hope of changing the things in their life that dissatisfied them or were not sure how to make the changes.

DISCUSSION OF AREAS OF INTEREST

While class ranking did not seem to have much effect on the perceived levels of stress it was interesting that the major chosen by the students did seem to have an effect. Education(14%) had the lowest percentage of students who perceived themselves to have high or extremely high stress while business(23%) had the highest followed closely by nursing (21%). Perhaps it is due to the differences in the requirements or these colleges or a difference in the personality types of the students entering into these fields.

It was interesting that students not involved in any activities and students who were athletes perceived themselves to have more stress than people in band or people in activities related to their major. Athletics do involve the pressure of competition and involve a good deal of traveling to competition but band does as well. Activities related to a student's major might seem more enjoyable to a student so it may seem to cause less stress. It was also interesting that students not involved in any student organizations and students involved in Greek organizations were more stressed than students involved in other student organizations. Greek organizations seem to have more activities and requirements than many other student organizations.

A larger percentage of students who did not engage in hobbies or creative pursuits or very rarely engaged in hobbies or creative pursuits perceived themselves to be highly or extremely highly stressed than students who participated in a minimum of one hour per week. This might indicate that hobbies or creative pursuits lower stress levels or that the people who have time to pursue hobbies or creative activities have fewer stressors in their lives.

It was understandable to find that students who are satisfied or highly pleased with the university tended to experience less stress than those who were dissatisfied. It was interesting to find that students who perceive themselves to be experiencing high levels of stress are not always unsatisfied with their lives. While nineteen percent of students perceived themselves to be highly or extremely highly stressed, less than six percent of the students perceived their current level of satisfaction with life to be somewhat poor or extremely bad. Although most of the students who were not happy experienced high stress, seven percent of the students who were extremely happy were experiencing high stress. Stress levels also varied according to students' personal relationships. It was interesting that divorced and engaged students experienced the most stress while students who were single but in a committed relationship perceived themselves to have the least stress. Since many engaged students are planning the future wedding and getting married tends to be stressful, it is understandable that these students would be experiencing high stress.

FUTURE RESEARCH

Areas for further research include studying the link between spending time on hobbies and creative activities and perceived levels of stress. Since the percentage of students who participated in creative activities or

hobbies at least one hour per week was much lower than the perceived stress levels of students who did not participate in creative activities or hobbies, this would be an area of interest for future research.

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A QUASI EXPERIMENTAL STUDY OF CULINARY SKILLS ATTAINMENT AND STUDENT/EMPLOYEE SELF ESTEEM MEASURES

John M. Antun
University of Tennessee

Robert E. Frash
College of Charleston

Eva Smith
Brevard College

ABSTRACT

Skills training for 21 st. century job opportunities are becoming increasingly complex. Employers and educators are both attempting to align training programs with on-the-job demands. Researcher has suggested that when skills are closely aligned to job requirements trainees (students) tend to hold themselves in esteem. The resulting self esteem has been linked to increased job satisfaction, organizational commitment and job longevity. The researchers conducted a quasi experiment utilizing pre and post self esteem inventories as administered to program participants (trainees/students). The treatment phase of the experiment was the application of 25 weeks of culinary arts training. The overall score of the self esteem inventory (CFSEI) or the Self Esteem Quotient was compared by both pre and post tests. The results clearly identified an increase in self esteem upon completion of the treatment phase. Future research efforts have been proposed.

INTRODUCTION

For years education researchers have been studying the component parts of teaching a vocational subject. The basis for identifying this information is analyzing the discrete tasks involved with executing a particular occupation. Wilensky (1964) argued that the division of labor would remain such that professional occupations would have distinct sets of skill standards required to complete the occupation's activities. These standards are developed in cooperation between educators and industry. The National Center for Research in Vocational Education (NCRVE; 1999) defines the skill standards movement as follows:

The skill standards movement has emerged from a conviction that technology and market changes have caused significant modifications in the types of skills and behaviors needed by workers on the job. This conviction has motivated a broad education reform movement that involves changes in curriculum and pedagogy and seeks to tie education more closely to the emerging needs of the workplace. As a result of the growing conviction that skill standards can make a significant contribution to improving both education and work, the Goals 2000: Educate America Act established a National Skills Standards Board to promote the development of a national system of voluntary industry-based skill standards.

Researchers have identified a positive correlation between graduates' mastery of industry required skill sets, job satisfaction and position longevity (Resnick & Wirt, 1996). From the opposite position, research suggests that high self-esteem is associated with optimism about the future and positive (even inflated) beliefs about one's skills and abilities (Alicke, 1985; Brown, 1986; Campbell, 1986; Crocker & Park, 2004; Taylor & Brown, 1988). In a more current study it has been suggested that students with high self-esteem have a better self-concept of themselves and consequently, learn more and have an even higher level of self esteem than those students who do not possess a positive sense of self (Koller & Baumert, 2006).

The purpose of this research is to explore the relationship of specific sets of culinary skills attainment and a student's self esteem. If a connection can be made between these variables then skills attainment can be seen as aiding in a higher level of future learning and ultimately improved job performance, added organizational commitment, increased job longevity and consequently, low job turn over rates.

LITERATURE REVIEW

Kernis, Cornell, Sun, Berry & Harlow (1993) suggest that maintaining a high sense of self-esteem allows the student to accept and integrate all kinds of evaluations in a more positive manner. As identified by Greenwald, Bellezza and Banaji (1988), self esteem is the central element underlying a positive self-concept. Research indicates that self-esteem demonstrates short-term fluctuations but long term stability (Costa & McRea, 1994). Erez & Judge (2001) also suggest that self-esteem is one of the variables by which employers can predict employee job behaviors. Hence, it is the normative consensus that self esteem, positive job performance and positive on-the-job learning are closely related.

The literature also identifies a positive connection, between self esteem and the workplace which ultimately points to improved job performance (Gardener & Pierce, 1998). Further career commitment, and, ultimately, career satisfaction is also connected to skills attainment (Carson, Carson, Lanford & Roe, 2001). Other researchers suggest that skills training within hospitality can also serve to increase an employee's willingness to strive for promotion and raise long term career aspirations (Baum, 2007). These data suggest a higher level of organizational commitment and increased performance levels which should result in increased job satisfaction and a higher level of employee organizational commitment. The aforementioned study took place among foodservice managers in hospital kitchens in the UK. It found that although there was little striving for "bigger and better" jobs within the limited industry, those who felt they possessed advanced skills strove to advance their careers both within the industry and outside the catering industry. Others found that a holistic combination of job candidate selection and skills training would result in increased organizational commitment and led finally to job longevity (Avril & Magnini, 2007).

In a recent research study of quality service in the hospitality industry, researchers found that allowing employees to increase their skills through developmental experiences resulted in a significantly higher level of employee empowerment and customer orientation (Hau-siu, Wing-chun, Sha & Hong, 2006). Other service studies found similar results (Arnett, Laverie & McLane, 2005). Others posited that most kinds of training and skills development will result in advanced individual and organizational career strategies for advancement (Garavan, O'Brien, O'Hanlon, 2006).

Judge, Eretz & Bono (1998) conducted an extensive study of the relationship of positive self image (self-esteem) and job performance. They found that self-concept predicts job performance through its link to motivation to perform. Hence they identify self esteem as a motivational trait as well as an ability factor. They suggest that because of an enhanced self-concept these employees will learn their job and deal with others more effectively. In a later study the researchers showed that the highest correlation of personality factors with job performance was self-esteem (Judge & Bono, 2001).

Job satisfaction has been found as a factor in limiting the turnover rate of hospitality employees (Wilkinson, 2005). Further, a reduced turnover rate is clearly linked to a number of employee factors: organizational commitment, job satisfaction, job tenure and congruency of the company and employees goals and values (Jans, 1989). Clearly this indicates a connection between a lower turnover rate and a higher employee self-esteem rate.

METHODOLOGY

The research design of this study is Quasi-experimental. Last (1995) defines the quasi-experiment as "a situation in which the investigator lacks full control over the allocation or timing of intervention but nonetheless conducts the study as if it were an experiment." In this case there would be no control group because the negative outcomes were not consistent with the mission and goals of neither the sponsoring organization nor the University in which the intervention took place. Further there were no opportunities to measure a randomized sample of similar students not treated with the intervention.

However, it can be safely assumed that the pre and post test scores of an untreated sample would, by design, remain the same. Hence eliminating a control group would also eliminate the ethical dilemma of not training a study group.

The researchers acknowledge the absence of generalizability in a method and design of this type. Further causality and casual relationship may lack reliability and validity. However the variables identified are simple and clear cut so that the results will lead to suggestions for additional research and study.

The hypothesis of this research is that H 1= Acquiring advanced culinary skills will result in students increase in self esteem as identified by the CFSEI metric. And conversely the H 2 = Acquiring advanced culinary skills will not result in a change in students self esteem as identified by the CFSEI metric.

The quasi experiment consisted of three distinct phases:

First: students' self esteem was measured based on the completion of the Culture Free Self-Esteem Inventory, Third Edition. Additionally the students were also administered a Career Transitions Inventory (CTI) instrument which measures a person's willingness to change careers.

Second: these same students then participated in a twenty-five week culinary arts training program (the experiment's treatment phase).

Third: these same students were administered the same inventory instruments upon completion of the training phase.

The scores for both inventories are compared across all 60 participants and self esteem domains.

These students were enrolled in two culinary training grants provided through the Empowerment Zone of Knoxville, TN and the US Department of Housing and Urban Development. The training grants provided that all students must reside in the most economically challenged sections of Knoxville, TN (identified as a Federal Empowerment Zone) and that they be disadvantaged in some other way. The result was that most students were either recent parolees, homeless or recently homeless, severely unemployed which is defined as being unemployed for an extended period (longer than 18 months), recently detoxified or otherwise negatively socially impacted.

In addition to the self esteem inventory instrument, the students were administered a Career Transitions Inventory which measures a person's willingness to change careers. The scores from this inventory will also be regressed to the previously mentioned self esteem scores. The Culture Free Self Esteem Inventory, 3rd Edition (CFSEI-3) was researched and published by Pro Education Inc.

This inventory assesses self esteem in a culturally unbiased manner. The inventory is created by asking the respondents to answer sixty questions regarding their opinions about themselves, their environment, their family and friends. These responses are then entered onto a provided worksheet and "translated" into a score which can then be used as a comparison number.

There are also age appropriate self esteem assessments and, adolescent - adult instruments were used in this study. The assessment provided by this instrument results in a Global Self Esteem Quotient (GSEQ) which can then be compared across research subjects. Additionally the inventory provides for four additional scores regarding self esteem, they are Academic, General, Parental/Home, Social and Personal. A defensive measure is also calculated in the assessment which determines the extent to which an examinee's responses are guarded.

The CFSEI-3 was standardized on a sample of 1,727 persons from 17 states. The normative group was stratified on the basis of geographic region, gender, race, rural or urban residence, ethnicity, family income, parent education and disability. The demographic characteristics match those projected for the school-age population in the year 2000 by the US Bureau of the Census (1999). Reliability was investigated using estimates of content sampling and time sampling. The GSEQ scores, average internal consistency coefficients ranged from .81 to .93: time sampling coefficients range from .72 to .98. Validity of the CFSEI-3 was investigated, by the publisher, using content, criterion-prediction, and construct-identification validity. The CFSEI-3 correlates strongly with other measures of self esteem and self-concept.

The Career Transitions Inventory (CTI) written and published by Mary J. Heppner (1991) was used to determine the subjects' willingness to change careers based on five separate scales, each represents a different aspect of how one perceives themselves and their career transition process. The description of the five scales gives an indication of what a high, medium or low score may mean to one's situation, they are:

- **Readiness** – this scale helps identify how willing a person is at this time to actually do things needed to achieve their career goals.
- **Confidence** – this score refers to a person's belief in their ability to successfully perform career planning activities.
- **Personal Control** – this measures the extent to which you feel you have personal control over this career planning process rather than feeling that external forces will determine the outcome of your career transition.
- **Support** – the scale relates to how much support you are feeling from people in your life as you contemplate a career transition.
- **Independence** – this scale indicates the level at which a person views a career choice as being an independent decision as opposed to a choice that is made as a part of a large relational context. This relational context may be family, friends, partners or other significant others that may enter into your career planning process.

The CTI is comprised of forty statements. The subjects are asked to indicate on a separate rating form the extent to which they agree or disagree. A Likert scale of 1 to 6 was used with a 1 indicating strongly agree and 6 being strongly disagree.

Once the data is coded and entered onto a SPSS 15 spreadsheet it is ready for analysis. The researchers searched for statistically significant relationships between and among the student pre and post scores. These analyses may suggest a connection between the efficacy of skills training (acquisition) and an improved sense of self.

The Intervention

The intervention was a Culinary Arts instructional program designed as follows:

- **First** – All students attended two preliminary weeks of socialization training. The training took place for two hours twice weekly. They were designed to orient the students to working in society. The importance of timeliness, grooming, and the commonly accepted workplace norms were the topics used in these classes. They were presented by a University social worker and the Culinary Arts instructor.
- **Second** – Each student was given a training stipend provided by the grantor. This stipend amounted to approximately five dollars per hour of training.
- **Third** - The Culinary Arts instructional program consisted of two four-hour classes per week for a period of twenty-five weeks and was organized around the skill standards identified by the United States Department of Labor and the American Culinary Federation as the skills necessary for one to be considered a cook or chef (ACF, 2001). These classes generated specific emphasis on the skill sets and a “hands on” approach to experiential learning. A significant percentage of the total time was spent on actually cooking and preparing for cooking in a commercial, state of the art, kitchen.

The skill sets presented were: basic baking, culinary math skills, dining room service, food preparation – knife skills, recipe development, flavor creation, vegetables and starches, meats and fishes, breakfast cookery, ice carving, cooking methods, garde manger, stocks, soups and sauces, presentation techniques, menu planning, basic nutrition, purchasing and receiving, and safety and sanitation.

The faculty for this program was composed of a director who is a Certified Executive Chef and a PhD, and seven working chefs. These working chefs were all full time chefs working in restaurants around the Eastern Tennessee/ Knoxville region. They made time from their normal schedule to teach for one month period two nights, or mornings, per week. The resulting instruction was highly professional, timely and fast paced.

Upon completion of the kitchen training phase the students were expected to find full time jobs in the Culinary Arts. They were closely supervised on-the-job for a period of one month after employment. The grant specifications called for each student to be gainfully employed at the end of the grant period and earning a minimum of \$10 per hour for a forty hour week.

The Career Transitions Inventory

The Career Transitions Inventory is designed to assist students to understand the internal barriers that might be blocking them from moving ahead with a career change. There are five scales, each represents a different aspect of how a student perceives herself and her career transition process. By understanding these barriers students may develop strategies for dealing with them. These barriers are, readiness, confidence, personal control, support and independence.

A further examination of these data will be conducted in ensuing research studies.

RESULTS

Sixty students were enrolled in the two grants over a two year period. To accommodate the students work and family schedules, each year included two groups of students; one taught in the morning and another in the evening. The student distribution of the classes was approximately the same with fifteen students in each of the four classes. However, several of the students had failed to complete one of the two instruments used to measure self esteem. These students were eliminated from the final data set. Hence, the final data set is composed of 46 students.

What follows is a graphic version of the students' scores as previously described. The chart clearly identifies the increase in student self esteem following the twenty-five week period. Social pre and post is the students' score of social self esteem as measured by the CFSEI, general pre and post is the students' score of generalized self esteem as measured by the CFSEI and GSEQ pre and post is the Self Esteem Quotient as measured by the Culture Free Self Esteem Instrument. This quotient is an evaluation of the scores of all measures of self esteem.

Table 1. Descriptive Statistics for the pre CFSEI measures and post intervention CFSEI measures.

	N	Minimum	Maximum	Mean	Std. Deviation
social_pre	46	5	84	45.26	28.724
social_post	46	2	75	51.04	24.043
general_pre	46	25	91	53.13	22.029
general_post	46	9	91	60.48	25.689
GSEQ_pre	46	16	97	66.61	20.323
GSEQ_post	46	18	90	70.48	17.848
Valid N (listwise)	46				

Additionally the standard deviation is smaller after the intervention (all scores with post identification) This suggests that more students were less ambiguous in their understanding of their self esteem. What follows is a table of CFESI quotient scores for both pre and post test comparing the means of each measure. One can observe that the standard deviation for most of the responses is either nil (0) or very small. This suggests that the students were more unanimous than not in their feelings of adequacy (or inadequacy) regarding their self esteem both before and after the 25 week training program (the intervention portion of the experiment).

Table 2. Descriptive Statistics regarding the comparison of means from the pretest to the post test, utilizing the CFESI response

GSEQ_post	Mean	N	Std. Deviation
18	30.00	2	.000
32	50.00	2	.000
50	53.00	2	.000
61	54.00	4	10.392
63	79.00	6	8.626
68	63.00	2	.000
70	68.00	2	.000
73	73.00	2	.000
77	79.00	4	20.785
78	83.00	2	.000
81	42.00	2	.000
84	77.00	8	15.213
86	78.00	4	1.155
88	16.00	2	.000
90	87.00	2	.000
Total	66.61	46	20.323

The following table lists the correlation between the pre and the post tests, which suggests a relationship between the scores of these student inventories. The confirmation of a correlation supports the researchers hypothesis that if an employee has sufficient training in the skill sets of his (or her) occupation then their self esteem will be elevated and the related measures (job satisfaction, organizational commitment and ultimately job longevity) will increase as well.

Table 3. Correlations of the General Self Esteem Quotient for both Pre and Post Tests utilizing the CFSEI responses.

		GSEQ_pre	GSEQ_post
GSEQ_pre	Pearson Correlation	1	.402(**)
	Sig. (2-tailed)		.006
	N	46	46
GSEQ_post	Pearson Correlation	.402(**)	1
	Sig. (2-tailed)	.006	
	N	46	46

** Correlation is significant at the 0.01 level (2-tailed).

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IS ADVANCED PLACEMENT BETTER THAN SCHOLASTIC APTITUDE TEST?**Esha Sinha***Binghamton University (SUNY), Binghamton, New York***Edward. C. Kokkelenberg***Binghamton University (SUNY), Binghamton, New York***ABSTRACT**

Is Advanced Placement more correlated with college GPA, graduation and lesser time to degree relative to SAT scores or is SAT or are they complementary or indeed, contradictory? Looking at the performance of freshman cohorts of a public university, students who took only SAT and not AP exams, we find that SAT score is correlated with their post-freshman GPA, whereas for students who took both an AP exam and SAT post-freshman GPA is higher if AP credits exist. Factors correlated with choices made by a student to graduate, transfer or drop out are investigated using multinomial logit. Time taken to degree, transfer or drop from college are analyzed using a competing risk approach. For SAT students, SAT scores did not affect time to transfer or dropout, but higher SAT math scores reduced time to degree and higher SAT Verbal scores increased the chances of transferring out relative to staying on and getting a degree and dropping out. In case of AP students, AP credits reduced the risk of dropping out relative to transfer more than the SAT scores and it increases the chances of transferring out relative to staying on and graduating. The existence of AP credits lessened time to degree and transfer both and increased time to dropout. Higher SAT scores did reduce time to degree(not as much as AP credits), but did not influence time to transfer and time to dropout.

INTRODUCTION

The total number of high school graduates have increased by 25% from 1992-93 to 2004-05 and college enrollment has also increased by 21% from Fall 1993 to Fall 2005². 12th graders have increased their expectations for postsecondary education. The percentage of 12th graders expecting to gain a bachelor's degree as their highest degree increased from 19% in 1981-82 to 34% in 2003-04³. Around 3,303,000 high school students were expected to graduate in 2007-08 school year and college enrollment is projected to increase to around 18 million in the Fall 2008⁴. As more and more high school students decide to get a college degree, the parameters used by educational institutions to choose among their pool of applicants garners attention and debate in press, colleges, among students, parents, teachers and researchers⁵. An application packet submitted by a student would include his or her educational and extra-curricular achievements in school, test scores or/and exam grades (e.g. Scholastic Aptitude Test, Advanced Placement).

As the names suggest, SAT is a Scholastic Aptitude Test and AP is Advanced Placement Course, hence they signal two different things. SAT indicates an aptitude for college, while AP indicates readiness for college. SAT test provide a measure of innate ability in English language, mathematics and writing and is not related to any high school coursework. AP courses are closely related to high school studies and taking them is a year long commitment. SAT score shows that a student can understand college studies, and an AP grade shows that the person can understand and excel in college courses. Hence, by nature SAT and AP are significantly different from each other. They serve the purpose of admission criteria, therefore to know if AP is better than SAT or not, one should know which one is a better predictor of a student's college performance. Between AP and SAT, which one is more important indicator of college success or are they both redundant or are they both important?

² National Centre for Education Statistics (2004). Projections Of Education Statistics to 2017. Figure C and Figure F.

³ National Centre for Education Statistics (2006). The Condition of Education. Table 23-1.

⁴ National Centre for Education Statistics (2007). Digest of Education Statistics. Table 100 and Table 3.

⁵ Yong Tang (2006). "Will American Top Universities Admit students like Pan Liliun?" People's Daily.

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SAT and AP exams are standardized testing procedures, an attempt to provide a common yardstick to colleges and universities and to let a student know his or her place nationally. College Board, high schools, teachers, students and parents devote their time and resources towards both or either of these two tests. Across the nation, 48% of high school graduates took SAT in 2006-2007⁶. In 2006-2007 1,464,254 high school students took a total of 2,533,431 Advanced Placement exams⁷. It is very important to ask this question whether these are worthwhile exercises or not. Students aiming for college want to signal his or her favorite future college that he is capable enough to be their new students. He needs to know which one is a better signal. Colleges take into account a host of factors including SAT and AP when considering applications for undergraduate degrees. Which score should colleges consider most or should they take into account both? The current analysis aims to provide an answer to admission authorities and also to students, whether SAT or AP complement or contradict each other or should one be given priority over the other based on their correlation with college success.

LITERATURE REVIEW

Scholastic Aptitude Test: SAT I is a psychometric test, testing a student's basic ability in language, mathematics and writing. SAT I was introduced to complement a student's application package which would include his or her high school performance indicators (high school GPA, involvement in extra-curricular activities). High school performance of a student is very much dependent on the individuals' family social and financial background⁸. To do away with such differences and also to take care of differing grading standards across high schools, SAT was introduced.⁹ SAT has been scrutinized by researchers to understand how strongly it can predict college success.

Advanced Placement program was conceptualized by a group of educators from Harvard, Yale and Princeton Universities and three elite preparatory schools in 1955. The purpose was to provide a stronger academic link between high schools and colleges. Schools would provide their faculty to teach college courses and encourage students to pursue college education. Advanced Placement courses cover 22 subjects. They are aimed at preparing students for college-level work (in the process gain college credits while still in school) and an exam is a culmination of year-long study of specific courses. Students achieving good AP grades receive credits and are exempted from introductory courses in college, because it is believed that AP courses prepare high school students for college. To know if the AP Program is doing its job, researchers have investigated the college success of students taking AP exams/courses.

OUR STUDY

The purpose of our study is to know whether SAT scores or AP grades are a better indicator of post-freshman success. It is important to look beyond freshman level as the first year of any student is spent experimenting in college. In post-freshman levels, the students are considered to be more serious and focused on what kind of career they would like to pursue even though they don't stop experimenting (Geiser and Santelices, 2004). Helping a student gain confidence so that he or she can graduate and can go out in the world and make something out of life is one of the objectives of college education. A good post-freshman GPA shows confidence of a student and a probable graduation. The analysis also looks into factors correlated with graduation, transfer, dropout and time to degree because post-freshman success is not only restricted in good college grades, but also in graduating from college within four years or transferring to another educational institution where the students find a better match for his or her career interests (Adelman(1999) concluded that taking AP courses in high school is correlated with bachelor degree completion). Most of the econometric analysis has looked at the issue using Ordinary Least Squares estimation technique. I start off with OLS to understand the factors that are highly correlated with post-freshman semester GPA and then move to Tobit regression. The variables indicating graduation or transfer or dropout are investigated using Multinomial Logistic Regression. Time taken to graduate is analyzed through the model of competing risks using techniques of event history analysis like in DesJardins et al.(2006). They investigated the issue of multiple withdrawals from college and the periods of multiple enrollments in college on probability of

⁶ 2007 Digest of Education Statistics. Table 134: SAT score averages of college-bound seniors, by race/ethnicity: Selected years, 1986-87 through 2006-07

⁷ AP Data 2007 (2007). 2007 Annual AP Program Participation. College Board, New York

⁸ Persell, C.H., Catsambis, S. and Cookson, Jr., P.W. (1992). Family Background, School Type, and College Attendance: A Conjoint System of Cultural Capital Transmission. *Journal of Research on Adolescence*. 2(1), pp1-23.

⁹ Lemann, N. (2004): A History of Admission Testing. In R. Zwick (Eds.), *Rethinking the SAT* (pp. 5-14). RoutledgeFalmer: New York and London

graduation by looking at first-time freshman students of University of Minnesota-Twin Cities. Students who withdrew from college once had much lesser probability of graduation, longer enrollment spells increased the risk of graduation and higher ACT scores, college GPAs, coming from middle- or high-income family increased chances of reenrollment.

The current analysis will be based on seven incoming freshman students who had taken only SAT and/or AP exams. Not all students take the AP exams, for them SAT can still be a good predictor of future success. It is important to analyze these two populations separately, people taking only SAT and people taking both, SAT and AP. Most of the papers evaluating SAT's predictive power pointed out the increment in R-square after including SAT score with high school GPA as the explanatory variable in the regression. Change in sample size as SAT is included in the model and the resulting fallacy of comparing Rsquares between regressions run on two different populations is well-pointed out by Rothstein(2004). Including AP and SAT in one single model can be problematic. Geiser and Santelices (2004) and Klopfestein and Thomas (2006) have SAT scores and AP grades or AP credits in their model. For non-AP students, AP grades or credits would be missing. Both the papers do not mention anything about "only SAT" students or how they deal with missing AP grades or AP credits.

DATA DESCRIPTION

The data used for analysis is a panel data of students of a public university. Freshman cohorts from Fall 1997 to Fall 2003 are followed till Spring 2007. Students are followed from the point, they enter the University till they graduate, transfer or drop out¹⁰. It is a person-period dataset, with each student *i* having a certain number of observations depending on the mode of exit (graduation, dropout, transfer) from the dataset. A student is observed each semester and the dataset has information on courses taken by a student in a semester. The data reveals the following statistics concerning the SAT exam and AP exam taking patterns of freshman cohorts. Around 45% to 50% of incoming students do not go after AP exams. A very small number of AP students (ranging from 2 to 7 in each cohort), do not take the SAT test.

Table 1: Number of freshman students who took only SAT test and/or took at least one AP exam

Freshman Cohort	Number of students	Only SAT	Took SAT and AP exam
1997	2042	860	1118
1998	2198	996	1104
1999	2262	1034	1124
2000	2180	981	1104
2001	2462	1079	1291
2002	2296	1119	1110
2003	2542	1173	1269

METHODOLOGY

As semester GPA lies within the interval of [0,4], Tobit estimation was used, which takes into account a left and right-censored left hand side variable¹¹. The model is thus

$$y = 0 \text{ if } y^* < 0, \quad y^* = x'\beta + \zeta, \quad y = y^* \text{ if } 0 < y^* < 4, \quad y = 4 \text{ if } y^* > 4$$

where y^* is semester GPA, x is the matrix of right hand side variables. Appendix B provides a detailed explanation of the right hand side variables (dummy variables) used in the regressions. The following Tobit models were run separately for AP and non-AP students from $j=1$ to $j=8$ levels. Level = 1 refers to first semester of freshman year and level = 2 refers to second semester of freshman year. Continuing in this fashion, level = 8 refers to second semester of senior year.

¹⁰ Adelman(1999) suggested that as students complete degrees not Universities or colleges, it is important to follow a student, during the time he or she is in college.

¹¹ Semester GPA is a weighted average of course grades. Course grades lie in the interval of [0,4] and is discrete. The weighted average of the discrete course grades would be continuous.

$$\text{Semester GPA}_{i,j,k} = \alpha + \beta_1 \text{HSGPA}_i + \beta_2 \text{SAT Verbal}_i + \beta_3 \text{SAT Math}_i + \beta_4 \text{AP Credits}_i + \beta_5 \text{Gender}_i + \beta_6 \text{Black}_i + \beta_7 \text{Hispanic}_i + \beta_8 \text{Asian}_i + \beta_9 \text{AmIndian}_i + \beta_{10} \text{Nonresident}_i + \beta_{11} \text{Unknown}_i + \beta_{12} \text{Fulltime Status}_i + \beta_{13} \text{Residency}_{i,j} + \beta_{14} \text{student-teacher-ratio}_{i,h} + \beta_{15} \text{student-teacher-ratio-square} + \beta_{16} \text{student-teacher-ratio-cubed} + \beta_{17} \text{High School Control}_{i,h} + \beta_{18} \text{97cohort}_{i,k} + \beta_{19} \text{98cohort}_{i,k} + \beta_{20} \text{99cohort}_{i,k} + \beta_{21} \text{00cohort}_{i,k} + \beta_{22} \text{01cohort}_{i,k} + \beta_{23} \text{02cohort}_{i,k} + \epsilon_{i,j}$$

i= student , j=level, k=cohort, h=high school

Multinomial logit model was estimated, as a student has the choice to graduate or transfer or dropout from the university they started their education in. The model for student choice is:

$\text{Prob}(\text{Choice of student } i = \text{graduation or transfer or dropout}) = G(x, \beta)$
where, $G(x, \beta)$ is assumed to follow a logistic distribution.

Timely college graduation is investigated using Cox proportional hazard (duration) model which is written as hazard of graduation of student i in time period $t = \lambda(ti) = \exp(-X_i' \mu) \lambda_0(t)$

The above expression says that the hazard (probability) of graduation of student i at time t depends on the value of X_1 . X_1 matrix consists of the right hand side variables in the Tobit model. The function $\lambda_0(t)$ is the baseline hazard, which represents individual heterogeneity (Greene, 2003). If all the covariates take the value zero for a student, $\lambda_0(t)$ is the student's risk of graduating. The model is semi-parametric because it doesn't assume anything about the distribution of hazard function. It does assume that a student exits the dataset only once and doesn't show up again and encounters only one kind of exit. In the data used in this paper, each student has distinct kind of exit from the dataset. A student can exit the dataset by graduating or dropping out or transferring. The model helps in calculating the probability of graduation, dropout and transfer in each semester starting from the semester the student enters the University and takes into account the interdependence which (may) exist among these three outcomes and indicates the variables which are important in a students decision to choose among the above three outcomes.

RESULTS

Table 2. Tobit Regression, LHS Variable: Semester GPA (AP Students)

	Sophomore Year				Junior Year				Senior Year			
	First Semester		Second Semester		First Semester		Second Semester		First Semester		Second Semester	
Variable	Beta	SE	Beta	SE	Beta	SE	Beta	SE	Beta	SE	Beta	SE
Intercept	3.279	0.572	3.513	0.572	3.260	0.559	4.334	0.547	4.500	0.554	4.503	0.499
High School GPA	1.E-03	5.E-04	5.E-04	5.E-04	1.E-03	5.E-04	5.E-04	5.E-04	4.E-04	6.E-04	5.E-04	5.E-04
SAT Verbal Score	9.E-06	1.E-04	5.E-05	1.E-04	2.E-04	1.E-04	1.E-04	1.E-04	4.E-04	1.E-04	3.E-04	1.E-04
SAT Math Score	4.E-04	1.E-04	4.E-04	1.E-04	2.E-04	1.E-04	3.E-04	1.E-04	6.E-05	1.E-04	-4.E-06	1.E-04
AP Credits	0.018	0.001	0.017	0.001	0.016	0.001	0.014	0.001	0.012	0.001	0.011	0.001
Fulltime	0.807	0.350	0.469	0.304	0.804	0.233	0.246	0.192	0.204	0.194	0.170	0.067
Offcampus	-0.206	0.037	0.209	0.029	0.121	0.022	0.040	0.019	0.013	0.020	0.032	0.020
Female	0.183	0.017	0.225	0.018	0.232	0.020	0.230	0.019	0.222	0.019	0.248	0.018
Ethnicity Dummy												
Other	-	0.028	-	0.028	-	0.028	-	0.026	-	0.026	-	0.024

	0.052		0.041		0.007		0.040		0.014		0.072	
Black	- 0.263	0.053	- 0.157	0.053	- 0.271	0.057	- 0.354	0.056	- 0.351	0.057	- 0.312	0.054
Hispanic	- 0.306	0.041	- 0.282	0.043	- 0.209	0.046	- 0.277	0.046	- 0.244	0.047	- 0.250	0.044
Asian	- 0.044	0.023	- 0.080	0.023	- 0.141	0.026	- 0.176	0.026	- 0.182	0.026	- 0.185	0.025
American Indian	- 0.640	0.247	- 0.389	0.248	- 0.630	0.307	- 0.086	0.302	- 0.159	0.349	- 0.383	0.261
Non-resident	- 0.013	0.076	- 0.022	0.082	- 0.064	0.097	- 0.163	0.097	- 0.279	0.098	- 0.324	0.092
Student Teacher Ratio of High School	- 0.290	0.090	- 0.251	0.095	- 0.279	0.100	- 0.358	0.102	- 0.290	0.102	- 0.310	0.097
Student Teacher Ratio Squared	0.017	0.006	0.015	0.006	0.017	0.007	0.022	0.007	0.019	0.007	0.019	0.006
Student Teacher Ratio Cubed	-3.E-04	1.E-04	-3.E-04	1.E-04	-3.E-04	1.E-04	-4.E-04	1.E-04	-4.E-04	1.E-04	-4.E-04	1.E-04
High School Control	0.012	0.028	0.016	0.028	0.016	0.030	0.024	0.030	0.003	0.030	0.033	0.029
Cohort Dummy												
1997 cohort	- 0.012	0.031	0.098	0.031	0.055	0.034	0.045	0.033	0.062	0.034	0.006	0.032
1998 cohort	- 0.006	0.030	0.058	0.031	0.010	0.035	- 0.031	0.033	- 0.008	0.034	- 0.011	0.032
1999 cohort	0.016	0.031	0.021	0.032	0.062	0.035	0.090	0.034	0.069	0.034	0.037	0.032
2000 cohort	- 0.036	0.031	0.011	0.032	0.021	0.035	- 0.016	0.034	0.029	0.035	0.014	0.033
2001 cohort	0.018	0.030	0.062	0.031	0.085	0.034	0.022	0.033	0.042	0.034	- 0.007	0.031
2002 cohort	- 0.007	0.031	0.042	0.032	0.047	0.035	- 0.001	0.034	0.018	0.034	0.035	0.032
Number of Observations	5313		5122		4392		4433		4335		4693	
Log Likelihood	-4919		- 4744		-4124		-4084		- 4022		- 4199	
AIC	9889		9537		8298		8218		8095		8449	
SC	10053		9701		8458		8378		8254		8610	

Table 3. Multinomial Logit Regression for Graduation (Outcome One), Transferring Out (Outcome Two) and Dropping Out (Outcome Three)*

Variable	SAT Students				AP Students			
	Outcome One		Outcome Three		Outcome One		Outcome Three	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Intercept	0.231	1.250	7.235	2.323	2.143	1.566	7.062	3.776
Cumulative GPA	0.261	0.078	-1.610	0.137	-0.038	0.075	-1.858	0.159
High School GPA	-0.003	0.002	-0.003	0.003	-0.001	0.002	-0.004	0.004
SAT Verbal Score	-0.002	4.E-04	1.E-05	0.001	-0.001	0.000	0.001	0.001
SAT Math Score	0.001	5.E-04	-0.001	0.001	0.001	0.000	-0.001	0.001
AP Credits					-0.013	0.004	-0.027	0.012
Fulltime	-0.075	0.258	-1.282	0.337	-0.410	0.230	-1.085	0.395
Offcampus	0.614	0.074	0.963	0.153	0.461	0.062	0.421	0.155
Female	-0.398	0.069	-0.632	0.132	-0.360	0.061	-0.811	0.155
Ethnicity Dummy								
Other	0.050	0.089	0.417	0.173	0.269	0.079	0.660	0.186
Black	0.010	0.144	0.583	0.238	-0.036	0.188	-0.017	0.425
Hispanic	0.030	0.135	0.669	0.216	0.276	0.147	0.691	0.292
Asian	0.492	0.100	0.602	0.204	0.524	0.081	0.857	0.200
American Indian	-0.534	0.875	-44.186	0.000	-3.E+01	9.E+05	-3.E+01	2.E+06
Non-resident	1.058	0.403	3.006	0.501	0.957	0.306	2.055	0.530
Student Teacher Ratio of High School	-0.134	0.243	-0.391	0.469	-0.267	0.301	0.064	0.730
Student Teacher Ratio Squared	0.013	0.016	0.032	0.032	0.018	0.020	-0.006	0.047
Student Teacher Ratio Cubed	0.000	0.000	-0.001	0.001	0.000	0.000	0.000	0.001
High School Control	-0.005	0.100	0.001	0.176	0.027	0.100	-0.099	0.220
Cohort Dummy								
1997 cohort	-1.222	0.128	-2.718	0.266	-1.364	0.109	-3.137	0.313
1998 cohort	-1.133	0.122	-2.671	0.243	-1.251	0.109	-2.458	0.247
1999 cohort	-1.015	0.123	-2.252	0.221	-1.158	0.109	-3.107	0.322
2000 cohort	-1.046	0.124	-2.108	0.222	-0.935	0.108	-2.089	0.235
2001 cohort	-0.776	0.119	-2.172	0.226	-0.844	0.104	-2.393	0.250
2002 cohort	-0.445	0.117	-1.270	0.192	-0.544	0.106	-1.871	0.233
Number of Observations	4503				5705			

Log Likelihood	-3676				-4319			
* Transferring Out is the Base Outcome								

Table 4. Time to Degree, Transfer Out and Drop Out
SAT Students

Variable	<i>Time to Degree</i>			<i>Time to Transfer Out</i>			<i>Time to Dropout</i>		
	Beta	SE	Hazard	Beta	SE	Hazard	Beta	SE	Hazard
Cumulative GPA	0.464	0.064	1.590	-0.133	0.054	0.876	-1.684	0.141	0.186
High School GPA	0.000	0.001	1.000	0.002	0.001	1.002	0.000	0.003	1.000
SAT Verbal Score	-0.002	0.000	0.998	0.001	0.000	1.001	0.000	0.001	1.000
SAT Math Score	0.001	0.000	1.001	0.000	0.000	1.000	0.000	0.001	1.000
Fulltime	0.738	0.185	2.093	0.467	0.175	1.596	-0.095	0.271	0.909
Offcampus	-0.259	0.057	0.772	-0.767	0.045	0.464	-0.368	0.139	0.692
Female	-0.027	0.050	0.974	0.307	0.045	1.359	-0.042	0.116	0.959
Ethnicity Dummy									
Other	0.084	0.067	1.088	0.082	0.058	1.086	-0.172	0.160	0.842
Black	-0.311	0.111	0.733	-0.221	0.088	0.801	0.079	0.208	1.083
Hispanic	-0.130	0.101	0.878	-0.106	0.085	0.899	0.283	0.183	1.326
Asian	0.008	0.071	1.008	-0.416	0.068	0.659	-0.041	0.184	0.960
American Indian	-0.546	0.711	0.580	-0.081	0.451	0.922	-11.561	263.691	0.000
Non-resident	-0.274	0.226	0.760	-1.027	0.325	0.358	1.003	0.317	2.727
Student Teacher Ratio of High School	0.052	0.171	1.054	0.092	0.149	1.096	0.279	0.390	1.322
Student Teacher Ratio Squared	-0.003	0.011	0.997	-0.009	0.010	0.991	-0.018	0.026	0.982
Student Teacher Ratio Cubed	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.001	1.000
High School Control	0.030	0.073	1.031	0.043	0.062	1.044	0.028	0.146	1.028
Cohort Dummy									
1997 cohort	-0.559	0.092	0.572	0.744	0.085	2.104	-2.118	0.251	0.120
1998 cohort	-0.570	0.087	0.566	0.676	0.083	1.967	-2.289	0.233	0.101
1999 cohort	-0.468	0.086	0.626	0.623	0.084	1.864	-1.599	0.191	0.202
2000 cohort	-0.526	0.087	0.591	0.658	0.085	1.931	-1.664	0.199	0.189
2001 cohort	-0.273	0.081	0.761	0.571	0.085	1.771	-1.579	0.199	0.206
2002 cohort	-0.250	0.076	0.779	0.264	0.086	1.302	-1.147	0.164	0.318
Number of Observations	4502			4502			4502		

Model Fit Statistics

Criterion	Without Covariates		With Covariates		Without Covariates		With Covariates	

-2 LOG L	27675.4	27424.64	37253.53	36767.35	4981.729	4591.345
AIC	27675.4	27470.64	37253.53	36813.35	4981.729	4637.345
SBC	27675.4	27597.28	37253.53	36945.72	4981.729	4726.077

Table 5. Time to Degree, Transfer Out and Drop Out
AP Students

Variable	Time to Degree			Time to Transfer Out			Time to Dropout		
	Beta	SE	Hazard	Beta	SE	Hazard	Beta	SE	Hazard
Cumulative GPA	0.308	0.057	1.361	0.073	0.051	1.076	-1.497	0.165	0.224
High School GPA	-0.001	0.001	0.999	0.000	0.001	1.000	-0.004	0.003	0.996
SAT Verbal Score	-0.002	0.000	0.999	0.000	0.000	1.000	0.000	0.001	1.000
SAT Math Score	0.001	0.000	1.001	0.000	0.000	1.000	-0.001	0.001	0.999
AP Credit Hrs	0.003	0.003	1.003	0.013	0.003	1.013	-0.008	0.010	0.992
Fulltime	0.277	0.145	1.319	0.443	0.169	1.558	-0.048	0.318	0.953
Offcampus	-0.142	0.047	0.867	-0.516	0.039	0.597	-0.431	0.144	0.650
Female	-0.033	0.044	0.968	0.245	0.039	1.278	-0.330	0.145	0.719
Ethnicity Dummy									
Other	-0.058	0.201	0.944	0.149	0.205	1.160	-0.036	0.623	0.965
Black	0.004	0.013	1.004	-0.010	0.013	0.990	0.001	0.041	1.001
Hispanic	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.001	1.000
Asian	0.042	0.073	1.043	0.017	0.063	1.017	0.156	0.199	1.169
American Indian	0.333	0.058	1.396	0.079	0.051	1.082	0.145	0.174	1.156
Non-resident	-0.234	0.143	0.791	-0.183	0.112	0.833	-0.209	0.382	0.811
Student Teacher Ratio of High School	0.012	0.106	1.012	-0.217	0.095	0.805	0.195	0.260	1.215
Student Teacher Ratio Squared	0.062	0.057	1.064	-0.389	0.055	0.677	0.181	0.185	1.198
Student Teacher Ratio Cubed	-9.929	87.580	0.000	0.536	0.412	1.709	-10.261	328.226	0.000
High School Control	0.366	0.176	1.442	-0.462	0.239	0.630	0.946	0.431	2.575
Cohort Dummy									
1997 cohort	-0.503	0.078	0.605	0.809	0.073	2.246	-2.358	0.301	0.095
1998 cohort	-0.555	0.077	0.574	0.712	0.074	2.038	-1.984	0.234	0.138
1999 cohort	-0.422	0.076	0.656	0.723	0.075	2.060	-2.436	0.309	0.087
2000 cohort	-0.281	0.074	0.755	0.724	0.077	2.063	-1.673	0.221	0.188
2001 cohort	-0.279	0.069	0.757	0.588	0.075	1.801	-1.794	0.228	0.166
2002 cohort	-0.100	0.068	0.905	0.427	0.078	1.532	-1.548	0.212	0.213
Number of Observations	5702			5702			5702		

Model Fit Statistics

Criterion	Without Covariates	With Covariates	Without Covariates	With Covariates	Without Covariates	With Covariates
-2 LOG L	37661.34	37401.44	50660.32	50140.92	3784.931	3439.517

AIC	37661.34	37449.44	50660.32	50188.92	3784.931	3487.517
SBC	37661.34	37587.99	50660.32	50333.63	3784.931	3572.508

DISCUSSION OF RESULTS

The coefficient on AP credits is larger than the coefficient on the SAT scores and High School GPA. Being a female and fulltime student helps and staying offcampus can lower your GPA. High School variables, student teacher ratio, its non-linear terms are significant. The coefficient values on the non-linear terms of student teacher ratio are very small, but the signs indicate that higher the student teacher ratio of high school, lower is college semester GPA. The cubic term is positive but its coefficient is small relative to the coefficients on the linear term and the squared term. Hence even if the impact of very high student-teacher-ratio is not as negative as a medium value of student-teacher-ratio, but it is still negative. The exact increment in semester GPA due to a unit change in the covariates is given by the marginal effects or the slope (look at Tables 6 and 7).

Table 6. Marginal Effects (Mean) from Tobit Regression for SAT Students

	Sophomore Year				Junior Year				Senior Year			
	First Semester		Second Semester		First Semester		Second Semester		First Semester		Second Semester	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Marginal Effect of												
HSGPA on SEM GPA	0.0010	4.E-05	0.0015	0.0001	0.0010	0.0001	0.0008	4.E-05	0.0005	4.E-05	0.0007	0.0001
SAT Verbal on SEM GPA	0.0004	2.E-05	0.0004	2.E-05	0.0004	2.E-05	0.0005	2.E-05	0.0007	0.0001	0.0007	0.0001
SAT Math on SEM GPA	0.0005	2.E-05	0.0005	3.E-05	0.0004	2.E-05	0.0001	7.E-06	0.0001	4.E-06	0.0001	8.E-06

Table 7. Marginal Effects (Mean) from Tobit Regression for AP Students

	Sophomore Year				Junior Year				Senior Year			
	First Semester		Second Semester		First Semester		Second Semester		First Semester		Second Semester	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Marginal Effect of												
HSGPA on SEM GPA	0.0012	7.E-05	0.0005	3.E-05	0.0013	0.0001	5.E-04	4.E-05	0.0003	3.E-05	0.0004	4.E-05
SAT Verbal on SEM GPA	8.E-06	5.E-07	4.E-05	3.E-06	2.E-04	2.E-05	1.E-04	1.E-05	0.0003	3.E-05	0.0002	2.E-05
SAT Math on SEM GPA	0.0004	2.E-05	0.0003	3.E-05	2.E-04	1.E-05	3.E-04	2.E-05	5.E-05	5.E-06	-4.E-06	4.E-07
AP Credits on	0.0166	0.0010	0.0149	0.0011	0.0141	0.0012	0.0122	0.0010	0.0103	0.0009	0.0085	0.0009

SEM GPA												
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For SAT students, the marginal effect of pre-college variables diminishes and for SAT Math, turns negative. In junior year, a unit change in SAT Math and Verbal scores brings about the same change in semester GPA. The marginal effect of SAT Verbal increases in the later years. For AP students, the marginal effects of SAT scores are very small relative to AP credits, but their trend as a student goes from sophomore to senior level is similar to what is experienced by SAT students. If there is a 100 point increase in SAT Math score and 2.4 credit increase in AP credits it improves semester GPA (first semester, sophomore year) by .04. A 100 SAT Math score is equivalent to 2.4 AP credits for AP students.

The coefficients in multinomial logit regression, shows the direction of effect of covariates on probability of one choice relative to probability of second choice. For SAT students, higher cumulative GPA (other covariates remaining unchanged), makes them go for graduation relative to transfer and reduces his incentive to dropout relative to transfer. A student prefers to transfer relative to graduation (dropping out) if he has high (low) SAT verbal score and low (high) SAT math score. Being fulltime or female, one is going to choose transfer relative to both graduation and dropping out and vice versa if you are staying offcampus or a non-white student. For AP students, higher cumulative GPA, high school GPA and AP credits would make them go for transfer relative to graduation and dropping out. Same results hold if you are a fulltime student or a female. Non-white students (except Blacks and American Indian) or public school AP students, are going to prefer graduating (transferring out) relative to transfer (dropping)¹². If “RRR” is greater than one for a covariate, the risk of the student choosing comparison outcome(graduation or dropout) relative to the risk of the student choosing referent outcome(transfer) increases as the covariate increases, given that other covariates remain constant. If Cumulative GPA increases by one unit, the probability for graduation relative to transfer increases by a factor of 1.298 (SAT students). For both AP students and SAT students, SAT scores have the same amount and direction of influence on their choices. A unit increment in AP credits result in decrease of risk of graduation and dropout relative to transfer. The overall impact of student teacher ratio and its non-linear terms is positive for graduation (dropping out) relative to transfer.

Table 8. Relative Risk Ratio from Multinomial Logit Regression¹³

Variable	SAT Students				AP Students			
	Outcome One		Outcome Three		Outcome One		Outcome Three	
	RRR	Std. Err.	RRR	Std. Err.	RRR	Std. Err.	RRR	Std. Err.
Cumulative GPA	1.298	0.102	0.200	0.027	0.963	0.072	0.156	0.025
High School GPA	0.997	0.002	0.997	0.003	0.999	0.002	0.996	0.004
SAT Verbal Score	0.998	4.E-04	1.000	0.001	0.999	4.E-04	1.001	0.001
SAT Math Score	1.001	5.E-04	0.999	0.001	1.001	4.E-04	0.999	0.001
AP Credits					0.987	0.004	0.973	0.011
Fulltime	0.928	0.240	0.277	0.093	0.664	0.152	0.338	0.134
Offcampus	1.847	0.136	2.620	0.401	1.585	0.099	1.524	0.236
Female	0.672	0.046	0.532	0.070	0.697	0.042	0.444	0.069
Ethnicity Dummy								
Other	1.052	0.094	1.517	0.263	1.309	0.103	1.935	0.359
Black	1.010	0.145	1.792	0.426	0.965	0.181	0.983	0.417
Hispanic	1.030	0.139	1.953	0.421	1.318	0.194	1.997	0.583
Asian	1.636	0.163	1.826	0.372	1.688	0.136	2.356	0.471
American Indian	0.586	0.513	6.E-20	0.000	3.E-13	3.E-07	7.E-13	2.E-06
Non-resident	2.881	1.160	20.213	10.126	2.603	0.797	7.808	4.139

¹² These conclusions are based on the assumption that other covariates in the model remain unchanged.

¹³ Outcome One is Graduation, Outcome Three is Dropping Out and Transferring Out is Outcome Two which is the Base Outcome

Student Teacher Ratio of High School	0.875	0.213	0.677	0.317	0.766	0.231	1.066	0.779
Student Teacher Ratio Squared	1.013	0.016	1.032	0.033	1.018	0.020	0.994	0.047
Student Teacher Ratio Cubed	1.000	0.000	0.999	0.001	1.000	0.000	1.000	0.001
High School Control	0.995	0.099	1.001	0.176	1.028	0.103	0.906	0.199
Cohort Dummy								
1997 cohort	0.295	0.038	0.066	0.018	0.256	0.028	0.043	0.014
1998 cohort	0.322	0.039	0.069	0.017	0.286	0.031	0.086	0.021
1999 cohort	0.362	0.044	0.105	0.023	0.314	0.034	0.045	0.014
2000 cohort	0.351	0.043	0.121	0.027	0.392	0.042	0.124	0.029
2001 cohort	0.460	0.055	0.114	0.026	0.430	0.045	0.091	0.023
2002 cohort	0.641	0.075	0.281	0.054	0.580	0.061	0.154	0.036
Number of Observations	4503				5705			

The columns of interest are that of hazard ratio. Hazard Ratio greater than one indicate that a unit increase in the covariate results in increase of the probability of the outcome (person's chance of surviving the risk goes down). For SAT and AP students, good college GPA and other academic variables reduces time to degree except SAT Verbal score. AP credits decrease the time to transfer and increase the time to dropout. A female (fulltime, offcampus) student, would take more (less, more) time to graduate and transfer and more (less, more) time to dropout. But, if you are a Black or American Indian/Pacific Islander or Hispanic or Non-resident and has taken only SAT test, you will take longer time to complete a degree. For low (high) values of student-teacher-ratio, the overall impact is that it reduces (increases) the time to any of the three events¹⁴. Coming from public high school reduces time to all the three events for SAT students, while for AP students it reduces time to graduation and drop out. If you enter the University in fall semester, you take longer to finish your degree or dropout and lesser time to transfer out.

To understand the different risks faced by the student during the time he is in the university, survival curves (deduced from survival functions) are plotted across years. Following figures points out the survival curves of three outcomes (1-graduation, 2-transfer, 3-dropout). TTE or Time to Event is in year units (zero years to ten years). The graphs are very similar in case of SAT and AP students. A student does not transfer or graduate quite successfully till the middle or end of fourth year in college. The transfer survival curves starts to go down much before graduation survival curve at the beginning of second year showing that a student would transfer before four years and even fall below the dropout survival curve especially after four years. After four years, there is a huge drop in the graduation survival curve and it continues to drop smoothly, as more and more students aim to graduate after their fourth year. Till four years, the graduation survival curve is like the top of plateau, indicating that whoever has the intention of getting a degree would stay on for four years or more. The dropout survival curve starts falling at the beginning of the time period and continues to fall sharply and reaches stagnation after between five and six years, pointing out that people do not wait long to dropout.

CONCLUSION

The paper addressed the question whether AP is better than SAT from different angles. AP and SAT measure two different things. Taking AP exam indicates hard work, ability and motivation, while taking SAT test indicates inherent abilities. As they indicate different things, the first observation made in the paper was that AP and SAT students be treated separately. Comparison between AP and SAT should take place only among students who have taken AP exam as well the SAT. The benchmarks of comparison between SAT and AP were semester GPA, choices among (and time to) graduation, transfer and dropout.

For students who take only SAT, the test scores do indicate their future college performance and for those students who have taken a year-long AP course and taken an exam, the number of college credits granted to them is a better indicator of their college performance than the SAT scores. In terms of marginal effect, college GPA of AP students are more responsive to AP credits, while for SAT students, college GPA is responsive to SAT scores after high school GPA. For SAT students, SAT scores did not affect time to transfer or dropout, but SAT math score

¹⁴ The results holds for both SAT and AP students

reduced time to degree and SAT Verbal score increased the chances of transferring out relative to staying on and getting a degree (or dropping out). In case of AP students, AP credits reduced the risk of dropping out relative to transfer more than the SAT scores and it increases the chances of transferring out relative to staying on and graduating. AP credits lessened time to degree and transfer both and increased time to dropout while SAT scores did reduce time to degree(not as much as AP credits), but did not influence time to transfer and time to dropout.

Hence, students who take the SAT test and AP exam, the test scores and AP credits are both correlated with their college success and are complementary. Students taking only SAT test, the test scores are a good predictor of their college performance. It is important to understand that SAT and AP signal different aspects of a college applicant and a complete evaluation of the applicant is possible when these two pre-college ability measuring tests/exams are given their right focus.

APPENDIX A: LITERATURE REVIEW

Table A1: *Research on Scholastic Aptitude Test*

Author(s), Year	Sample	Left Hand Side Variables	Right Hand Side Variables	Main Result
Crouse, J. and Trusheim, D. (1988)	NLS 1972, HSB 1980	Freshman GPA	SAT score, High School GPA, High School Rank, Parent's Education	SAT is not different from high school GPA in predicting college performance indicators of an incoming class. Inclusion of SAT scores in the regressions did not add to the explanatory power of the model
Morgan, Rick. (1989)	Validity Service Data of College Board	Analyzed the correlation of SAT scores with freshman GPA of classes enrolling in colleges during the period of 1976 to 1985.		Found a decline in correlation between SAT score and freshman GPA (.51 in 1976 to .47 in 1985)
Burton and Ramist (2001)	Review of Predictive Validity studies on SAT till 1980	Freshman GPA, College Graduation	SAT score, High School GPA, High School Rank	SAT and high school GPA together can predict performance in college better than GPA or SAT alone
Cohn, Balch and Bradley (2004):	571 Principles of Economics students at University of South Carolina in 2000 and 2001.	College GPA	SAT score, High School GPA, Rank in High School	SAT score is a good predictor of College GPA.

Table A2: *Research on Advanced Placement Program*

Author(s), Year	Sample	Left Hand Side Variables	Right Hand Side Variables	Main Result
Dodd, Fitzpatrick, De Ayala, and Jennings (2002)	Looked at University of Texas, Austin's students who gave AP exams and those who did not take AP exam.	Made comparisons between AP students who scored 3 or above in AP exams and did not take introductory college courses (due to exemption) and the non-AP students who took the introductory courses by looking at the differences in the mean course grades of non-introductory courses between the two groups of students across the subjects covered by Advanced Placement Program.		Students, who were exempted, received same or higher grades in subsequent courses, took as many or more number of credit hours and had same or higher grades in the additional courses of the discipline of their exam compared to students who took the introductory courses.
Geiser and	University of	Cumulative	High School GPA,	AP exam grades are

Santelices(2004)	California's Fall 1998 to Fall 2001 Freshman Cohorts	Freshman GPA, Cumulative Sophomore GPA and Persistence from freshman year to sophomore year	High School API quintile ¹⁵ , SAT score, SAT subject score, AP exam grades, Number of AP or Honors courses taken and Parental Education.	good predictors of college GPA and persistence. Number of AP or Honors courses taken was not significantly related to college success.
Klopfenstein & Thomas (2006)	Texas School Microdata Panel: 28,000 Texas high school graduates who attended 31 public universities in the state in Fall 1999.	First Semester GPA, Second Year Retention	SAT scores, Number of AP credits taken in high school, High School Characteristics, High School GPA, academic success in high school, demographic and economic characteristics of student	AP credits is not a significant predictor or GPA and did not explain persistence.
Dougherty, Mellor and Jian (2006)	Followed 1994 Texas 8 th graders who graduated from high school and enrolled in the state's public college or university.	Probability of Graduating in Five Years	AP course participation, AP examination success or failure, High School's demographic and economic characteristics.	Students who take and pass AP exams graduate relative to those who do not take AP course and exam. Students who failed AP exams or just took the AP course, but did not take the exam have higher prospects of graduating compared to students who did not participate in AP Program.

APPENDIX B: EXPLANATION OF RIGHT HAND SIDE VARIABLES

The right hand side variables are academic background variables (High School GPA, SAT Verbal score, SAT Math score, AP credits given to students upon declaration of AP exam scores), demographic characteristics (gender, ethnicity), college experience variables (fulltime or part-time status, staying on-campus or off-campus) and high school characteristics (student teacher ratio of the high school, the kind of high school-public or private) of the student are considered. Gender, fulltime status, residency status and ethnicity of student are dummy variables. The data has many observations where the individual reported "unknown/do not know" under ethnicity. Hence they were also accounted for in the regressions by assigning them a dummy variable. Dummy variables were assigned for different cohorts to account for any kind of year-to-year variations.

Table B1: *Explanation of Dummy Variables*

Gender	Dummy	Ethnicity	Dummy
Male	0	White Non-Hispanic	0
Female	1	Black Non-Hispanic	1 or else 0

¹⁵ API refers to Academic Performance Index which is calculated for California state's public schools. The quantile in which a high school's API index score falls into is the API quintile.

		Hispanic	1 or else 0
Residency	Dummy	Asian or Pacific Islander	1 or else 0
Offcampus	1	American Indian or Alaskan Native	1 or else 0
Oncampus	0	Non-Resident Alien	1 or else 0
		Unknown	1 or else 0
Status	Dummy	Cohort	Dummy
Fulltime	1	1997 cohort	1 or else 0
Part-Time	0	1998 cohort	1 or else 0
		1999 cohort	1 or else 0
HS Control	Dummy	2000 cohort	1 or else 0
Public	1	2001 cohort	1 or else 0
Private	0	2002 cohort	1 or else 0
		2003 cohort	0

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AN INVESTIGATION OF THE TRAINING OF PRINCIPALS TO USE DATA TO IMPROVE STUDENT ACHIEVEMENT: DO PRINCIPALS HAVE THE NECESSARY SKILLS?

Jimmy Byrd

University of North Texas – Denton

Johnetta Hudson

University of North Texas – Denton

ABSTRACT

NCLB legislation has placed pressure on school leaders to improve student achievement for all students regardless of race, ethnicity, gender, language or socioeconomic level. To this end principals must utilize rigorous, systemic, and objective measures to obtain valid knowledge regarding student performance. The demand that principals have a positive impact on student achievement using rigorous data-driven analysis challenges the traditional practices of leadership preparation programs. This study provided concrete evidence that aspiring school leaders within educational leadership preparation programs are not being prepared with the necessary instruction to enable them to skillfully transform their academic programs using inferential data analysis.

INTRODUCTION

University preparation programs are coming under increased scrutiny as principals are facing new roles and heightened expectations, requiring new forms of training. In particular, the demand that principals have a positive impact on student achievement challenges traditional assumptions, practices, and structures in leadership preparation programs (Lashway, 2003). In fact, there is little evidence that current coursework in traditional preparation programs directly connects practices to principals' on-the-job performance or to student achievement (Browne-Ferrigno & Muth, 2004). A recent survey of principals supports this notion. Butler (2008) found that two-thirds of 500 principals surveyed believed that typical graduate leadership programs "are out of touch" with today's realities.

Since the early 1990s, the training of school principals - who play a vital role in school improvement - has been widely criticized as inadequate. Yet, hard evidence on the kind of training and development that leaders need to help schools and students succeed has been in short supply. This study provided concrete evidence that aspiring school leaders within educational leadership preparation programs are not being prepared with the necessary instruction to enable them to skillfully transform their academic programs using data.

REVIEW OF THE LITERATURE

In an effort to address the needs of an ever increasing diverse student population, leaders are compelled "to have enough information at hand to know where problems exist and how to best solve them," (E-lead, 2009). Data-driven decision making involves a process of collecting, disaggregating and analyzing student data. This collection of student data according to Cradler (2009) serves "to inform decisions related to planning and implementing instructional strategies at the district, school, classroom, and individual student levels," (p. 1). This process is "more than an accountability tool; it is a diagnostic tool" (Doyle, 2003, p. 1) that requires school leaders to be data and data analysis literate.

In the collection and analysis of data NCLB requires leaders to utilize "rigorous, systematic, and objective procedures to obtain valid knowledge" (U.S. Congress, 2001) about student academic progress. Statistical methodology in education, according to Earl and Katz (2006), can provide inferences of human qualities such as academic achievement. Inferential statistics are very important in social science research in that they allow us "to infer the characteristics of a population from a representative sample," Krathwohl, 1998, p. 455. While school leaders may fear or even loathe quantitative analysis, data-driven decision-making based on rigorous statistical measures requires an understanding of the statistical principles which underlie the decisions being made (Earl and Katz 2006).

As states have grown more influential by developing standards for curriculum, student performance, and assessment, school districts and schools have had to yield considerable autonomy, becoming accountable to the state for a range of student outcomes (Conley, 2003; Fuhrman & Elmore, 2004). Failure to meet state and national academic assessments can subject districts to takeover and schools to reconstitution. Intensifying the pressures of this high-stakes environment, local stakeholders, such as parents and businesses, have also demanded improved

student performance. In response, community and school boards often establish their own sets of goals for schools (Firestone & Shipps, 2003).

Data use essentially sets a course of action and keeps a staff on that course to school improvement and student success. Further, the wealth of data from assessments of student achievement as well as information available from other evaluations of student and school performance can create a divide between what is currently being done and what needs to be practiced to improve student performance. The expanding nature of information accessibility requires school and district leaders and teachers to analyze and interpret multiple forms of data that result in substantive changes.

While there has been much rhetoric surrounding the quality of principal preparation programs (Browne-Ferrigno et al, 2002; Levine, 2005; Maxwell, 2008; Tirozzi, 2001) and given the increasing demands on school leaders to improve student achievement, the question of what principals actually know regarding utilizing data to improve student achievement once they are in the field has taken on heightened significance. Therefore, the purpose of the current study was two-fold: 1) to determine how principals use data to improve instruction at the classroom-level; and 2) to determine the training that leaders require to help schools and students succeed.

METHOD

The participants in the current study include 168 principal from across the state of Texas. Among the 168 participants, 105 (62.5%) were male, while 63 (37.5%) were female. Regarding race, 15 (8.9%) were African-American, 125 (74.4%) Anglo, 24 (14.3%) Hispanic, 1 (.6%) Native American, while three participants (1.8%) were classified as other.

Participants were asked to respond the following scenarios to determine their understanding of both the Pearson product-moment correlation and the paired-sample t-test. The rationale for including these scenarios is based on a review of 15 randomly selected educational administration program's content of study which revealed that these simple, yet powerful statistical tools (Pearson product-moment correlation and paired sample t-test) are covered in their educational administration preparation programs. In addition, to determine curriculum alignment, the correlation is useful while the paired sample t-test would be most useful to the practicing administrator to determine if growth is indeed taking place. This is in alignment with the NCLB Act's requirement to use scientifically based research to determine the merit or worth of a program while measuring academic yearly progress (AYP).

DATA ANALYSIS

Initially, descriptive measures were utilized in the current study to examine participant responses to the two scenarios described above. In addition, cross-tabulations were employed to examine the relationship between the type of degree and type of preparation program with the training received to determine if data analytic skills were addressed in either the degree type (Master's or Doctoral degree) or preparation program (traditional or alternative) and school type where the principal was employed.

RESULTS

The results indicate that the majority of the responses regarding the interpretation of the Pearson product moment correlation and t-test scenarios were incorrect. 93% of the respondents (120) incorrectly interpreted the correlation scenario while 99.1% of the total respondents (106) submitted an incorrect response to the t-test scenario. Note that the total responses do not total to 164 as some participants chose not to respond to the scenarios.

Regarding certification program type (traditional versus alternative), the results revealed no statistically significant difference in the preparation program type and the interpretation of the data analysis scenarios. Regarding the correlation scenario, 93% of the participants trained in traditional programs submitted incorrect responses while 90% (n=9) of the respondents trained in alternative preparation programs incorrectly responded to the correlation scenario.

Similar to the results reported for the correlation scenario, the majority of respondents in both programs incorrectly interpreted the paired sample t-test. Ninety-nine percent of the respondents in traditional preparation programs incorrectly responded while 100% (n=7) of the participants trained in alternative preparation programs incorrectly interpreted the t-test scenario.

It was anticipated by the authors that newly minted principals would be trained in the latest data analytic techniques and have a greater tendency to submit correct responses to the data analysis scenarios investigated in the current study. The results revealed that the majority of participants across all categories submitted incorrect

responses to both the correlation and t-test scenario. Interestingly, a greater percentage of participants in the 11-15 years category submitted an correct response, while only one out of 21 (4.8%) newly trained principals (0-5 years) submitted a correct response.

Regarding the paired t-test scenario results presented, only one participant correctly interpreted the scenario correctly. Even though principal preparation programs are including course related to program evaluation, the participants in the current study who were enrolled in such courses did not score higher than their counterparts who did not receive training in program evaluation. Over 90% of the participants incorrectly interpreted the correlation scenario while more than 98% of the participants incorrectly interpreted the paired-sample t-test.

The results of the interpretation of the data analysis scenarios among participants by highest degree conferred. Similar to the results above, there were no statistically significant differences among the highest degree conferred among participants and their interpretation of the correlation and paired-sample t-test. Almost 94% of the participants who held a Master's degree and 86.7% of the participants who held a Doctorate incorrectly interpreted the correlation scenario while 99% of the participants holding a Master's degree and 100% of those holding a doctorate incorrectly interpreted the t-test scenario.

DISCUSSION

The results of this study very clearly indicate that principals do not possess the skills needed to meet the mandates of NCLB which require utilization of rigorous and systemic data analysis. This is somewhat alarming as we progress through an era of where understanding and using data about school and student performance are fundamental to improving schools. Without analyzing and discussing data, schools are unlikely to identify and solve the problems that need attention, identify appropriate interventions to solve those problems, or know how they are progressing toward achievement of their goals. Effective use of data can change how school leaders respond to accountability demands. Rather than focusing on "fixing the blame, there is a focus on "fixing the problem," (NCLB Issue Brief, 2002, p. 4). Data then becomes the fuel of reform.

The principal as a transformational leader of instruction must become literate in rigorous data analysis measures. Leadership preparation programs need to embark upon a journey of curricular and instructional transformation. That is focused on using data to determine root causes that impact academic behavior change.

According to Levine (2005), "[c]ollectively, educational administration programs are the weakest of all the programs at the nation's educations" (p. 13-14). While Levine's report has received criticism, the report does raise important issues. Namely, educational administration programs must be retooled to meet the demands of current practice, which the results of this study show.

Based on the results of this study and reports calling for reform, the field of educational administration must rethink what we do to ensure that the work contributes to rather than detracts from quality preparation. This endeavor will require that all levels within the field come together to seek a mutual and complex understanding of the context and the stakeholders that work within. Further, common ground must be found and shared goals developed around teaching principals to use scientifically-based research based on empirical data to change student academic behavior. Like many issues confronting our nation today, the challenges facing educational leadership are complex and interconnected. Challenges such as retooling our programs to ensure that principals have to tools to properly analyze data must be approached in light of their complexities.

The intent of this study is not to bash educational administration programs, rather it is anticipated that the results derived from this study will be utilized to improve educational administration preparation programs in the future. We can no longer allow others, such as Levine or individuals with large sums of money, to dictate the future direction of the field. As a starting point, the University Council of Educational Administrators, which the guiding light organization in educational administration is initiating discussion around educational leadership program reform which includes teaching principals to analyze data. We must join together in this effort and be proactive rather than reactive to ensure that we are preparing leaders to have a positive impact on student achievement to make certain that all students are life ready, career ready, and college ready.

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LESSONS LEARNED FROM STUDENT TEACHERS: EDUCATION PERSONNEL PREPARATION**Lucia Buttarò***Adelphi University***Tamara Sewell***Adelphi University***ABSTRACT**

The purpose of this critical study is to improve Adelphi University's student teaching program protocol in order to enhance future teacher candidate's experiences. This study focuses on concerns identified by teacher candidates and cooperating teachers, standard procedural information, as well as factors that contribute to teacher candidate success. Fourteen Teaching English as Second Language (TESOL) teacher candidates were observed, completed journals, and shared their personal experiences in their student teaching placement. Data gathered from a variety of sources illuminated the need to improve communication and collaboration between the parties of the student teaching triad (university supervisor, cooperating teacher, and teacher candidate) in order to develop a strong partnership and therefore confident and competent teachers.

INTRODUCTION

Student teaching experiences offer a valuable opportunity for candidates to become familiar with the day-to-day expectations of a classroom teacher. This experience very often calls into question a candidate's devotion to their field of choice as well as shapes the direction they choose to take within their field (classroom teacher, consultant, individual provider, etc.). The purpose of any student teaching program is to provide a situation in which teacher candidates learn and practice varied techniques of teaching while working with students under the direction of a certified teacher in a public or private school. The length of the student teaching at Adelphi University is one semester, in which they work for a total of 480 hours, 240 hours in the first placement and then another 240 hours in their second placement.

The traditional student teaching triad is composed of three participants: (1) teacher candidate, (2) cooperating teacher, and (3) university supervisor (Massey Vessel, 2005,p.1). The actual placement of teacher candidates is done through a cooperative arrangement between the university and the school district, resulting in a placement that meets the needs of that particular teacher candidate as closely as possible. The director of student teaching at the university meets with designated individual representing the school district and reviews the individual teacher candidate applications, and then works with the teachers at the school district who have been designated as appropriate for the role of cooperating teacher.

The next step in the placement is to request that the principal at the school review the application and discuss with the cooperating teacher the likelihood of accepting that teacher candidate. If all parties agree, then the teacher candidate is notified and encouraged to visit the classroom to become accustomed to the setting.

RESEARCH QUESTIONS

- *What concerns do teacher candidates identify prior to and during student teaching placement?*
- *What concerns do cooperating teachers identify in relation to the placement of teacher candidates in their classroom?*
- *What standard procedural information must teacher candidates demonstrate familiarity with prior to beginning their student teaching experience?*
- *What factors contribute to individual teacher candidate overall success?*

METHODOLOGY

For the purpose of this research, each teacher candidate was observed by the university supervisor a total of four times, twice in each placement. Each observation was followed by a brief conference with the teacher candidate. During each visit the university supervisor also met with the cooperating teacher to discuss the teacher candidate's progress and any concerns noted by the cooperating teacher. The teacher candidates also participated in a weekly seminar facilitated by the university supervisor.

Participants

Fourteen Teaching English as Second Language (TESOL) teacher candidates were observed, completed journals, and shared their personal experiences in their student teaching placement. Six candidates participated in the fall of 2007 and eight candidates participated in the spring of 2008. The candidates completed their student teaching placements throughout Long Island, Brooklyn, Queens, The Bronx, and Manhattan.

Data Collection

This study applied several complementary strategies, including document review, observation, post observation conferences, interviews with cooperating teachers and weekly seminars discussion. This design promotes the gathering of "rich" data regarding the teacher candidate's perceptions of their experiences and necessary supports identified throughout the experience. Document reviews were conducted for each candidate. The teacher candidates were required to keep a journal in which they reported the following:

- Things I have done well this week that helped students learn;
- Thoughts I have had this week;
- Feelings I have had this week;
- One important thing I learned this week;
- Things I want to remember to do in the future to help students learn; and
- Things my university supervisor should know.

The open-ended questions facilitated free response from the teacher candidates and allowed for unexpected data to emerge.

Data Analysis

Raw data from the journals was pulled in order to analyze possible connections between variables. Themes and patterns emerged from the data collected. Content analysis was used to code the information into general thematic categories. These themes were used to refine the research questions. Data from the journals was triangulated with the observation data, post observation conferences, interviews with cooperating teachers, and weekly seminar discussions.

RESULTS

Triangulation of the data from journals, post observation conferences, interviews with cooperating teachers, and weekly seminars discussions revealed several themes that informed the development of our research questions. The themes that emerged were concerns identified by teacher candidates, concerns identified by cooperating teachers, standard procedural information identified as necessary for teacher candidates, methodology/strategies of which teacher candidates must be familiar, factors that contribute to productive candidate evaluations, and factors that contribute to overall individual candidate success. Table 1 depicts the corresponding themes related to each research question.

Table 1. *Themes of Student Teaching*

Research Question	Corresponding Themes
What concerns do teacher candidates identify prior to and during student teaching placement?	Will I perform satisfactorily for my teacher mentor? Will we have a personality conflict? Will I be able to be myself, or must I become a clone of my teacher mentor? Will I be able to control a classroom full of students? Will my teacher mentor assist me in filling in the gaps? Will the students accept me as a teacher or see me as a student? Will the teacher candidate be critical of my teaching?
What concerns do mentoring teachers identify in relation to the placement of teacher candidates in their classroom?	Will I perform as a satisfactory mentor? Will I be able to turn over my class to a teacher candidate? How will my students feel about having another adult in the classroom? How will I get along with my teacher candidate? Will the teacher candidate be competent enough to work with my class? How will I get along with the university supervisor?
What standard procedural information must teacher candidates be familiar with prior to beginning their student teaching experience?	Knowledge of the community, population, resources, etc. Knowledge of school policies (dress code, attendance, discipline, emergency procedures, administration of medication, inclement weather, referral procedures, etc.) Knowledge of school schedules (bus pick-up/drop-off, lunch, classes, etc.) Knowledge of school grounds (location of bus pick-up/drop-off, class rooms, nurses office, main office, etc.) Working relationships with the administration and staff Support programs available at the school (e.g. breakfast program) Positive relationships with individual students and families Physical logistics of the classroom (where the pencil sharpener is, location of the trash can, location of teacher's desk in relation to student's, ventilation system (heat/cooling), adjustment of lighting, and technology. Classroom rules and procedures (emotional climate and styles of rapport, classroom management styles, amount of free movement allowed throughout the classroom, communication expectations, etc.)
What factors contribute to individual teacher candidate overall success?	Teacher candidate preparation & knowledge Ongoing collaboration by the student teaching triad (university supervisor, cooperating teacher, and teacher candidate) Planning Classroom organization Communication Follow-through

DISCUSSION

This critical study addressed four research questions. The questions focused on concerns identified by teacher candidates and cooperating teachers, standard procedural information, as well as factors that contribute to teacher candidate success.

Teacher candidates seem to primarily be concerned with performance related issues. Student teaching is the final hurdle before they complete their education; obtain a degree, and the proper credentials to allow them to teach in their own classroom. How the cooperating teacher and students perceive them, is of primary concern. Cooperating teachers are also concerned personal performance, but seem to be even more concerned with interpersonal relationships between themselves and the teacher candidate and the university supervisor, as well as the teacher candidate's relationship to the students.

Important procedural information will differ from placement to placement, however, it is clear from the feedback from the teacher candidates in this study that knowledge of basic policies, procedures, and logistics is imperative to the success of the candidate. Finally, the factors that contribute to the success of any student candidate can be summed up as knowledge, collaboration, communication, planning, and organization.

CONCLUSION

The purpose of this critical study was to improve Adelphi's student teaching program protocol in order to enhance future teacher candidate's experiences. This study focused on concerns identified by teacher candidates and cooperating teachers, standard procedural information, as well as factors that contribute to teacher candidate success. The study demonstrated a need to address communication and collaboration between the parties of the student teaching triad (university supervisor, cooperating teacher, and teacher candidate) in order to develop a strong partnership and therefore confident and competent teachers.

This study follows a small group of teacher candidates in a specific field of study. While general application of the information gained is possible, a larger population across domains of study would garner information generalizable across fields of study. Longitudinal research following teacher candidates through their preparation programs, into their student teacher placements, and finally into their professional classrooms would offer insight into the benefits and pitfalls that could be avoided through proper planning and collaboration. Clearly, there is much work involved in the continuous improvement of teacher preparation programs. Vital to this task is a shared vision between teacher educators and cooperating teachers.

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HIGHER EDUCATION IN GHANA: EXPANSION AND BENCHMARKS FOR QUALITY ASSURANCE

Kwabena D. Ofori-Attah
Northern Kentucky University

ABSTRACT

As Ghanaians prepared for self government, the British colonial government saw the need to establish a university in the country to train people locally to manage the affairs of the new nation. The paper traces the establishment of the first university in Ghana, the University of Ghana, and subsequent ones. As enrollments soared in the universities, unforeseen constraints set in the administration and organization of the universities, leading to erosion in the quality of their programs. The government of Ghana has since introduced some benchmarks that are slowly but surely improving access and the quality in university education in the country

INTRODUCTION

The Foundations for higher education in Ghana were laid by the British colonial government following the publication of the Asquith Commission Report in 1945. Among other things, the Commission recommended the establishment of universities in many colonial countries including Ghana. In 1943, the British Secretary of State appointed the Elliot commission to study to the organization and administration of new universities that were to be established in British West Africa at selected locations. In 1945, the Elliot Commission issued its report which argued for the establishment of universities in West Africa (Hilliard, 1957). The purpose of this paper is to discuss the evolution and expansion of university in Ghana. Another objective is to discuss the upsurge in university enrollments and the benchmarks the government of Ghana has established to restore quality in university education in the country.

THE EVOLUTION OF UNIVERSITY EDUCATION IN GHANA

In 1948 the Governor of the Gold Coast issued an Ordinance (No. 6 of 1948) which provided the legal foundation for the establishment of the University College of the Gold Coast, now called the University of Ghana (Hilliard, 1957). The college was formally opened by the Governor on October 11, 1948 as part of the Achimota College. The College was housed in the Teacher Training Building of the Achimota College, which was set up in 1924. The University was opened with 40 students who pursued different degrees in the Arts, Science, and Commerce. Later another 50 students were transferred from the old Achimota College. Local interests in university education gradually took roots (Hilliard, 1957). Although many Ghanaians especially those from affluent homes still preferred overseas higher education to local one, more and more Ghanaians showed interest in getting degrees from the local university. Between 1952 and 1953, admission of candidates to the college was on the increase. Both men and women took advantage of the availability of a local university college to enhance their scholarly potential and skills. See Table 1.

Table 1
Enrollment of Students at the University of Ghana, 1952-1953

Intermediate and Preliminary Courses		Degree Courses		Post Graduate		Associate Certificate of Education		Total	
Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
261	11	167	3	2	1	14	12	444	27

Source: Hilliard, 1957, p.110

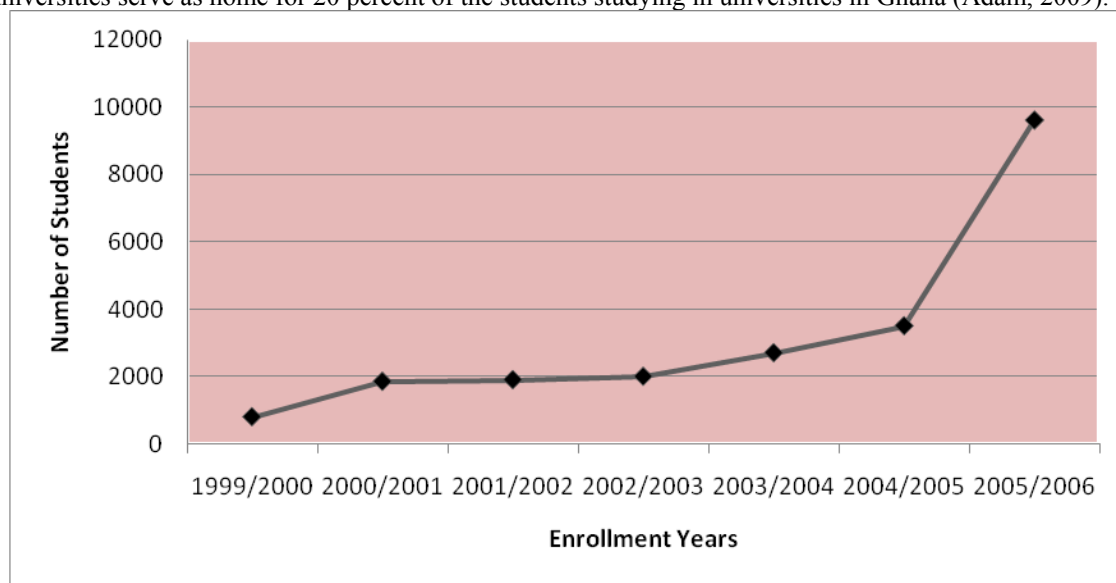
Students who did not have the required qualification for a degree course had to enroll for preliminary courses for a year before beginning a bachelor's degree program. In order to assure quality in organizational, administration and educational programs, the University College of the Gold Coast was affiliated to the University of London for a period of 13 years before it became autonomous. Students in the University College of the Gold Coast therefore graduated with a high sense of "the modern equivalent of *ius ubique docendi*" (Ashby, 1966, p.235).

Between 1961 and 1962, the government of Ghana established two more universities. These were the Kwame Nkrumah University of Science and Technology and the Cape Coast University. These were set up to provide quality human capital to provide local labor pool for the new economy.

The enormous increase in the enrollment of students in the three universities from 4,627 by the end of the 1965/66 academic year to 24,250 students by the beginning of the 1979 academic year implied that conditions in the three universities were not what educational planners anticipated. Facilities in the universities began to deteriorate (Sawyer, 2004). During the 1988/1989 academic year, out of the total of 2,712 students who qualified for admission to the University of Ghana, only 1,697 were offered admissions (Aggor, Kinyanjui, Pecku, & Yerbury, 1992). These conditions created fertile grounds for the private sector to participate in the provision of university education in Ghana. This process began during the later part of the 1980s.

NEW PUBLIC AND PRIVATE UNIVERSITIES

The private sector received the invitation from the government to participate in the provision of university education as a national duty. Missionaries in the country took the lead in this direction. Catholic, Methodist, Presbyterian, The Seventh Day Adventist, Pentecost churches, and Muslims, have all established own private university colleges. By the close of the 2000 academic year, the National Accreditation Board had granted accreditation to over 11 private university colleges to provide degree programs in the country (Teferra & Altbach, 2004; Sawyer, 2004). By the end of the 2002 academic year the number of private university colleges in Ghana that had registered with the National Accreditation Board had risen to over 21 (Sawyer, 2004). According to Adam, (2009), Ghana had about 30 private university colleges at the end of the 2008 academic year. These private universities serve as home for 20 percent of the students studying in universities in Ghana (Adam, 2009). See Figure



1.
Figure 1 Rising Enrollment in Private Universities in Ghana 1999/2000 to 2005/2006
Source: NCTE, 2006, in University of Sussex 2009.

In 1992, in an effort to ease the congestion and pressure on existing universities in the country, the government established the University of Education. The university comprises 3 main campuses located in the Central and Ashanti Regions. In the same year, the government opened a second university, the University of Development, in the northern part of the country.

CONSEQUENCES OF THE MASSIVE EXPANSION

Private universities in Ghana have made significant impact on providing higher education for students in the country and other students from other places in the world, the massive expansion in educational programs and enrollments have in many respects led to erosion in the quality of higher education in the country (Summary of World Bank Report, 1989). Many of the private universities rely on the public universities for faculties and

resources to manage their institutions. These faculty members are often overworked to such an extent that they can hardly do any research to enhance their own professional practice (Sawyer, 2004).

The Ghana government hardly provides any financial assistance for private universities. Many of these rely essentially on student fees to organize their institutions. This attitude on the part of the government often leaves private universities to seek their own means to run their programs. Their best efforts are often not sufficient to provide the funds, teaching tools, and facilities that quality education entails.

As the universities scramble for students, they have expanded their programs to include many courses, some of which are barely able to enroll enough students to compensate for the efforts of the faculty and the universities as a whole. The empty spots on the enrollment rolls all mean loss in resources and facilities. This is particularly hard on private universities who often do not get government subvention to organize their programs.

BENCHMARKS FOR QUALITY ASSURANCE

In an effort to maintain quality in the higher education in the country, the government of Ghana during the later part of the 1990s took certain measures that were aimed at removing the constraints that hampered the smooth administration and organization of university education in the country. In this section of the paper, some of the important initiatives the government made to stop the erosion in the quality of university education will be discussed

The National Board of Accreditation

The first major response of the government to the erosion of quality on higher education was the establishment of the National Board of Accreditation in 1993. By mid-2006, the National Accreditation Board of Ghana had granted accreditation to over 11 university colleges to provide different educational programs in the country (Ofori-Attah, 2006). As part of the process, institutions applying for accreditation have to disclose information concerning financial standings, physical facilities, faculty qualifications, student admission and assessment procedures.

The board has minimum benchmarks it requires all institutions to meet. In terms of student faculty ratio, the Board expects a ratio of 18:1 in the Humanities and Business departments; Science and Technology, 12:1; Medicine, 8:1; Engineering 12:1; Pharmacy, 10:1; Education, 15:1. The Board also has minimum standards for faculty ranks. Each institution should have at least 20 percent of its faculty holding a rank of Professor or Principal Lectures; at least 30 percent should hold a rank of Senior Lecture; and at least 50 percent the rank of Lecturer or Tutors. All these ranks require at least a Master's degree. Institutions that fail to meet the above minimum benchmarks for faculty do not get accreditation. The period for accreditation ranges from 2 to 5 years for different institutions (Ghana National Accreditation, 2009).

Ghana Education Trust Fund

In 2001, the government of Ghana set up the Ghana Education Trust Fund (GETFund). The main objective of this fund was to provide funding to promote quality education in the country (Atuahene, 2008). Since its formation in 2000, the GETFund has made significant contributions toward the development of education in general in the country. Universities have benefited generously from this fund. In 2004 GETFund provided \$24,328,467 to finance higher education in the country. This development in part accounted for the dramatic rise in the enrollments in the universities from 40,673 in 2002 to nearly 54,000 in 2003 (Atuahene, 2008). According to Atuahene (2008, p. 28), the "GETFund has created a scholarship scheme and the Student Loan Trust Fund to improve accessibility at the tertiary level." Many university students in Ghana have availed themselves the opportunities provided by the Student Loan Trust Fund to support themselves to acquire lucrative higher education credentials. In the 2006/2007, over 7,103 students continuing students and about 1,000 fresh students benefited from this Trust. Apart from government financial support individuals and corporations also make generous donations to this Fund.

Partnerships

Other strategies universities in Ghana are using to check erosion of quality in education is through partnership programs. These collaborations may be with local or foreign universities. On the local front, the University of Ghana for instance plays a supervisory role over the academic programs and organization of over 10 of new university colleges. On the international scene, some of the new university colleges have made some progress in

establishing contacts with universities outside the country. These include Ashesi University College, which has a special partnership with the Clausen Center at the University of California, Berkeley, Swarthmore College, New York University, all in the United States of America.

Distance Education

In an effort to ease the pressure on university facilities, universities on Ghana offer distance education to working men and women. The University of Ghana offers undergraduate courses in several areas including business administration, economics, geography and resource development, linguistics, psychology, and sociology. The combined effects of these measures have significantly improved the quality of higher education in Ghana. This is evidenced by the influx of foreign students in the universities in Ghana, public as well as private universities. (Ofori-Attah, 2006).

CONCLUSION

The provision of university education in any country is an expensive enterprise. Without the active participation of governments, citizens in a country may find it hard to develop university systems that are capable of meeting the educational needs of the citizenry. Successful provision of universities in a country is often the result of the combined efforts of the government and private initiatives (Banya & Elu, 2001). Successful development of university education in Ghana is an excellent illustration of this point.

Although Ghana has managed to expand university education in the country, expansion of university education in the country has not always been matched by expansion in infrastructure and other facilities to support the smooth organization of the institutions. This failure has often resulted in questionable quality education. The benchmarks Ghana has established to promote quality assurance in university education are steps in the right direction. However, as the World Bank has observed, to be competitive in the global education system, a lot more needs to be done to restore quality in university education. The suggestions made by the World Bank include the idea that greater investments should be made in physical facilities, human capital as well as teaching and learning tools so as to increase the utilization of these assets to improve the quality of higher education (Summary of World Bank Report, 1989).

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AN ANALYTICAL FRAMEWORK FOR ORGANIZING COURSE STRUCTURE AND ACHIEVING DEEP STUDENT LEARNING

Yanni Tournas

City University of New York

Eleni Germanou

Sheffield Halam University

ABSTRACT

An important issue in higher education is how to present course material to students so they can understand and internalize it and subsequently be able to reproduce it and apply that knowledge to real world settings. We propose an analytical framework for presenting the course material to students so they can internalize it and enhance their deep learning. The proposed framework includes being explicit about objectives, identifying the action choices, listing the constraints, and evaluating the alternatives about the action choices. This analytical framework can be applied in a variety of disciplines and may significantly enhance student learning.

INTRODUCTION

One of the most important issues arising in higher education is how to motivate students to understand and grasp the course material presented to them during their study years. An associated issue, related to the understanding of knowledge obtained through the college study, is the ability of college graduates to reproduce and apply this knowledge to real world settings when they become employed for a particular organization. This issue is widely discussed and argued in both academic and popular press because it is associated with the employability and professional career readiness of the college graduates. Very often, employers complain about the professional career readiness of college graduates and the corresponding inadequate college preparation for them to be effective decision makers and to tackle real world problems. The issue in this debate is how to ensure that the academic preparation of individuals entering the work force provides them with adequate skills to undertake productive careers after graduation and to be able to deal effectively with a variety of real world problems. Such skills are highly valued by employers and allow college graduates to establish successful careers in a variety of disciplines.

In pursuing this objective, students in higher education institutions today are exposed to many different streams of information intended to provide them with the necessary backgrounds to tackle real world situations in a variety of organizations and industries. However, the study of various subjects in a variety of disciplines that provide separate streams of knowledge can be overwhelming and possibly result in students are not being able to connect the different streams of information and consequently not being effective real world problem solvers and productive employees.

Every person has his or her own individual way of gathering and processing information, which means ways of learning and solving problems in day-to-day situations. These personal cognitive abilities, acquired in the course of a long socialization process are called “learning styles” (Reynolds, 1997). A learning style can be defined as the individual, natural and preferred way of a person to treat information and feelings in a certain (learning) situation which will influence his/her decisions and behaviors.

Several authors [see Biggs (1987, 1996) Boud (1990, 1995), Gibbs (1994) Entwistle and Ramsden (1991)], have investigated student attitudes to learning extensively. Different student attitudes have been identified and can be broadly categorized according to the following three approaches: a) Deep approach, associated with student intention to understand, vigorous interaction with content, relating concepts to every day experience, examining the logic of the argument. Therefore a student taking the deep approach would develop an intrinsic motivation in the subject matter and obtain a meaningful understanding of what is learned, b) Surface approach, associated with students intention to complete task requirements, memorizing information needed for assessments, failure to distinguish principles from examples, focus on diverse elements without integration. A student following the surface approach does not derive an intrinsic meaning from her study of the subject matter and c) Strategic (achieving) approach, associated with student intention to obtain highest possible grades, use of previous examination papers to predict questions, being alert to cues about grading schemes. A student undertaking an achieving approach to studying would be focusing on high grades and the best strategy to attain them without necessarily having an intrinsic interest in the subject matter. Each of these approaches is associated with different student learning

outcomes and the most desirable outcome among those is the Deep approach since it corresponds to better understanding of the subject matter and the students being able to relate and apply its concepts to every day experience and real world issues (Marton and Saljo, 1976).

Among the potential explanations for students subscribing to the Surface approach or the Strategic (achieving) approach to learning is that the material presented to them can be volumes of disparate types of information, not necessarily integrated in a unifying and understandable framework. To facilitate student assimilation of the course material and knowledge, a variety of previous authors [Crooks (1988), Entwistle, Hanley and Hounsel (1979)] have examined and proposed a variety of methods and devices to motivate students to effectively understand and absorb the issues related to the subject studied in each particular class (not least student assessment and evaluation).

The aim of this article is to propose an analytical framework for assisting educators to plan the course structure so to facilitate student Deep learning approach.

The specific objectives of this study are:

- a) to help students during their academic experience to develop a critical understanding and thinking and to sharpen their analytical skills and abilities.
- b) to organize student knowledge and assimilation of new information in such a way that can apply it to a variety of real world settings and consequently raises the employability perspectives and professional career readiness after college graduation.

Our approach on this issue is to present and argue in this paper that one of the potential reasons for the student minimum effort is that some times the volume of information exceeds the individual capability of absorbing this information unless there is some organized way to think and absorb this information (sometimes also referred to in the literature as bounded rationality). Therefore there is an identifiable need to present to students a general analytical framework which can assist them to categorize the newly acquired knowledge and absorb it easily when they are able to relate it to the proposed analytical framework.

This classroom information acquisition is very important for the society as a whole because college graduates are expected to reproduce and utilize the through college acquired information in order to apply it in real world settings. Effectively, college students are expected to become decision makers when they enter the workforce, basing their decision on a critical analysis of the body of knowledge they acquired during their academic experience. The approach we present in this paper is complementary to the previous student motivation approaches and we propose a course structure bases on the framework according to which new information about different subjects is presented to the students.

The Analytical Framework of Course Structure

Kolb (1984) defines learning as “the process whereby knowledge is created through the transformation of experience.”. Another definition, very similar to that one, is focused on the process:

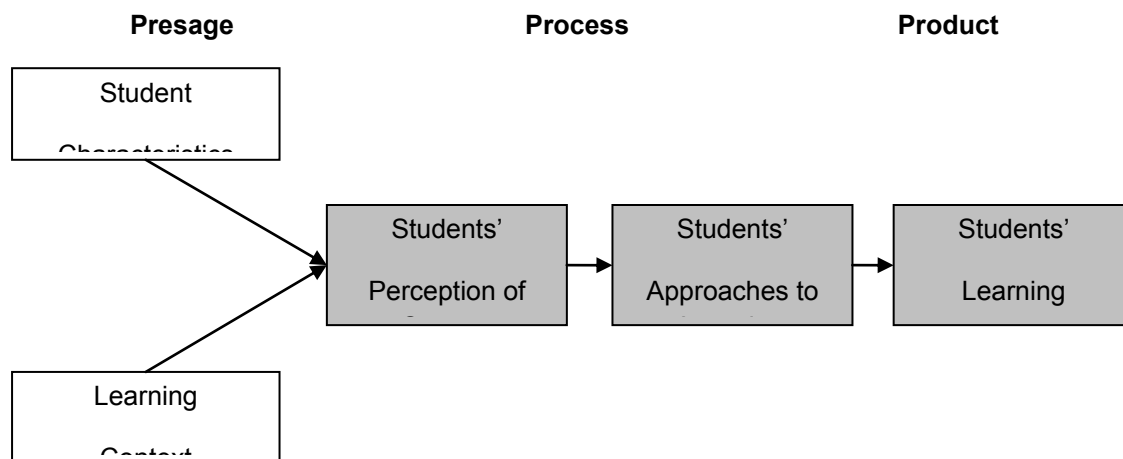


Figure 1 3Ps model. Biggs (1985, p. 185).

Learning is defined broadly as that set of processes by which new elements of action-orientation are acquired by the actor, new cognitive orientations, new values, new objects, new expressive interests.

Biggs (1985) describes a model of student learning processes which is outlined in Figure 1. This model consists of three distinct stages; presage, process and product, which had been put forward earlier by Dunkin and

Biddle (1974). Biggs's model suggests that the quality of student learning (the product) is induced by their approach to learning. Their approach to learning (the process of learning) is affected by students' perceptions of the requirements of the learning task which are, in turn, influenced by their personal educational characteristics (general orientation to learning) and their perceptions of the learning environment (teaching style, teaching methods, course material/design, and course assessment).

THE ANALYTICAL FRAMEWORK

In particular, we propose an analytical framework for course structure that fits in the presage stage of Biggs model. Specifically our framework focuses on learning context and redesigning the course structure so that it helps students to relate the course material to real world issues. This analytical framework is very helpful for dealing with most real world problems in a very general way applying to a variety of disciplines. The real world issues to be addressed have to be clearly established at the beginning of the course. Then utilizing the proposed analytical framework, emphasize to our students that new information presented during the course will be associated with one of the elements of this analytical framework. Therefore, by adopting changes in the learning context according to this framework we induce changes in student perceptions and may create differences in their attitude towards learning.

This framework is utilized extensively by decision makers in real world settings. For each course there is a specific class material to be covered associated with the subject. Our framework is established at the beginning of the class and we explicitly tell our students that any information presented in this class fits in one of the elements of the framework that is associated with attaining optimal solutions in the subject matter presented to them. It consists of the following elements of an optimization model:

Specifying your objective (goal)

Identifying the action choices (decision variables)

Identifying the set of constraints restricting the options for achieving the objective

Evaluating alternatives

Specifying your objective (goal)

At the outset of each course, the objectives to be pursued in relationship to the real world issues or topics to be studied should be explicitly outlined. Economic research (Thomson, 1996) dictates that in every real world issue/problem, the identification and specification of the objective is of utmost importance. In most real world problems, attaining the optimal state is usually associated with maximizing the welfare of society or individuals or organizations/entities. By being explicit about the objectives, helps students clarify the issues associated with a particular problem.

This issue in the business disciplines is usually associated with attaining the objective of the individual firm. In most cases, the business objective is defined as profit maximization or cost minimization. Especially in business disciplines, since the firm objective is usually denominated in ordinal units of measurement (i.e., dollar terms or euro terms), it is easily measured and provides for establishing benchmarks for setting up the optimization problem. This method is followed in attaining firm profit maximization or cost minimization that can be verified by using standard accounting techniques. Similarly, individuals (consumers) are assumed to have the objective of maximizing their satisfaction.

Identifying the action choices (decision variables)

After setting the objective for the issues to be studied during the course of a class, alternative courses of action have to be identified in pursuit of attaining the previously stated objectives. Students should be able to see explicitly the connection between the class material and the alternative courses of action. The different courses of actions usually correspond to choosing specific values for the decision variables that determine the end value of the objective under consideration.

Again in business disciplines, in the case of firms or consumers, the important decision variables are easily identified. In the case of firms attempting to maximize their profit, the decision variables to be considered are in most cases deciding about which price to set and what quantity to produce. By setting appropriate prices and quantities to be sold, the objective of profit maximization can be attained by examining alternative price and quantity combinations. In the case of individuals (consumers), they have to choose which goods and services to consume in their effort to maximize their satisfaction.

Identifying the set of constraints restricting the options for achieving the objective

Students must be aware that an important consideration for attaining the optimal solution for each problem is the presence of constraints. Therefore, class material should explain how, in pursuing a specific objective, constraints limit the choice of actions that it is available to the decision makers. They can be associated with wide variety of issues and the exact specification of constraints depends on the type of real world problem decision makers face.

In the business disciplines, in the case of firm or organizations, constraints are usually associated with issues related to demand conditions, cost conditions, resources and available technology. In the case of individual consumers, it is associated with their own budget constraint (i.e., how many financial resources consumers have so to buy appropriate bundles of goods and services so to maximize their satisfaction).

Evaluating alternatives

Last, in the class presentations, it is important to explain to students that it is not enough to identify each course of action but we also need to perform an analysis of the corresponding costs and benefits of each action. In most real world problems, the choice of the appropriate courses of actions, taking into consideration the existing constraints to attain certain objectives is usually associated with a cost vs. benefit analysis of each course of actions. Decision makers have to explicitly consider the costs of each action versus the corresponding expected benefit of each action in the way of attaining pre-specified objectives.

For a business, choosing different price impacts differently cost and revenues and therefore profits whereas consumers do the same cost vs. benefit analysis when deciding which goods and services to buy.

We can easily see how the above proposed analytical framework can be utilized in a variety of disciplines. For example, consider an individual in need of medical or nursing care. Then the objective of the decision makers will be to cure and restore the prior health condition of a particular patient. To attain that objective, different courses of actions or therapies must be undertaken with respect to medicines, hospital care etc. There are also a variety of constraints that need to be considered and will have an effect on the appropriate course of action chosen. Those constraints include age of the patient, prior health condition, allergies etc. Last, to choose which one course of actions to implement, a cost versus benefit analysis has to be conducted. For example, which are the side effects of the various treatments versus the expected improvement, financial considerations etc.

DEVELOPING STUDENT SKILLS

Using this analytical framework to motivate class presentations is very important in several respects. Student learning is greatly facilitated and students are more likely to adopt the deep approach to learning since they are able to connect all the information presented to them and therefore it becomes easier to remember and understand. Moreover, as students are presented with new information, they are able to absorb and understand where new information fits in the established analytical framework. Students are able to understand the importance of attaining the objective in the best possible way, help them understand what is important and what is less important in the real world issues studied and therefore being explicit with the objectives, choice of actions and constraints considered for each particular issue.

By incorporating existing or newly acquired knowledge in the context of this framework, students not only assimilate the new information easier but they also receive the necessary training to become effective decision makers. By being able to understand the real world issues and provide solutions, this framework can contribute towards addressing issues of employability and professional career readiness of college graduates. A complain often heard by today's employers is that college graduates are not qualified as independent thinkers and problem solvers. Having an organized way of modeling, thinking and providing solutions for a particular real-world problems, provides employees with a competitive advantage for maintaining their employment and for enhances their professional growth.

CONCLUSION

We strongly believe that knowledge presented to students in such a context can be very important for enhancing the relevance of higher education to real life. It also helps them to sharpen their analytical skills and makes it easier to motivate them and absorb newly introduced class material in an efficient way. Last, it greatly

assists them with potential employment interviews and improves their employability and professional career readiness prospects and have successful careers in a variety of disciplines.

The authors of this article have applied this analytical framework for many years of their respective higher education teaching experience and we think that it is very effective in classifying new information and sharpening student analytical skills. Our teaching experience is mainly in the field of business and economics but the analytical framework we propose can be very well extended to most other disciplines providing significant gains in student analytical skills.

Of course further discussion and elaboration about the specifics of the analytical framework details as it is applied to different real world problems. One could think the issue of measuring social welfare and the variety of measures involved. But as long as a particular measure is established the analytical framework provides students and decision makers an important way for organizing their thoughts and making rational decisions. Another direction would be to measure and compare student motivation improvements after students becoming exposed to the above analytical framework.

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TRENDS IN INTERMEDIATE ACCOUNTING

Lesley H. Davidson

Austin Peay State University

William H. Francisco

Austin Peay State University

ABSTRACT

There is an ever-growing amount of information that must be covered in Intermediate Accounting courses. The body of knowledge in Accounting has been expanding for many years. Recently this expansion has been accelerated by two main factors. The first factor is the increasing scrutiny of the accounting profession as a result of the financial failure of many large corporations during the past decade. The second is the upcoming introduction of International Financial Reporting Standards (IFRS). Accounting Professors have seen an ever growing amount of information being “crammed” into the standard Intermediate Accounting two course sequence which is typically used on most campuses in the United States. This manuscript explores the concept of altering the typical Intermediate Accounting sequence for the benefit of student understanding and comprehension of an ever growing body of knowledge.

INTRODUCTION

This text examines the need for more time to cover this additional material by incorporating the results of a recent survey. Two-hundred universities across the country were surveyed during the last two months of 2008 and the first two months of 2009 in order to gather the information used in this survey. Forty percent of the universities surveyed required more than two (3 credit hour) courses in Intermediate Accounting. Some of the universities that have made changes in their program offer a three course Intermediate Accounting sequence while others are now offering two courses with each course being four credit hours rather than three. Eight questions were asked of the respondents ranging from accreditation of the program to the faculty attitudes and perceptions. There does not seem to be a direct correlation between accredited programs versus non- accredited. Several universities indicated that even though a change had not been made, it was being considered.

The authors examined the Accounting programs of many universities throughout the United States to see what changes were currently being implemented by various colleges to address this topic. A survey instrument was e-mailed to a randomly selected sample of universities to assess which programs had changed their pedagogy to meet the students’ needs for the increased information necessary for their academic achievement. Additional information was requested on how the programs were changed by the sampled universities and what difficulties were experienced during the transition period.

RATIONAL FOR THIS RESEARCH

The topic of recreating the course structure for financial accounting has not been readily addressed in past research. While most universities realize that the body of knowledge is expanding at a rapid rate, many accounting programs have not directly addressed the issue. An examination of four leading textbooks currently being published shows how the scope of material had increased.

A review of the largest selling intermediate textbooks is quite revealing. On average the books by lead authors Spiceland, Kieso, Nikolai, and Stice have increased an average of 7.2% from their last edition. Additionally many of the comments listed on the various publishers’ websites attribute much of the increase to the incorporation of IFRS. Specifically the Stice textbook website states,

“As the business workplace becomes more global, students need to understand how accounting practices may differ depending on the countries involved in a transaction. Nearly every chapter includes updated coverage of this nature and relevant sections that discuss the international standards are flagged in the margin with an IASB icon. A new chapter (Chapter 22) offers coverage of International Financial Reporting Standards to reflect the changing nature of the financial reporting environment.” (Cengage, 2009)

Additionally the website for the Nikolai book states,

“New convergence overview: ... details the process that the FASB and IASB are using to converge U.S. GAAP and international GAAP. Chapter 2 summarizes the tentative Joint FASB and IASB Conceptual Framework... In the eleventh edition, for each of these chapters the text includes at least one IFRS versus U.S. discussion box that contains an updated and expanded summary of the differences between the two. New IFRS homework: The eleventh edition includes new international questions, as well as an international requirement to at least one exercise and one problem in each of chapters 4 through 23. The exercises and problems require students either to discuss how the solution would change under IFRS or to solve the assignment using IFRS. These requirements are based on the information in the IFRS versus U.S. GAAP discussion boxes.” (Cengage, 2009)

In reviewing these changes it becomes obvious that examination of alternative course coverage options is a relevant discussion for any accounting program. The manner that is used to expand and methods to employ this expansion seems to be the only stumbling block.

METHODOLOGY

A survey of two- hundred universities was conducted via e-mail. The universities were randomly selected from the Hasselback Accounting Directory and the contact information for those institutions being surveyed was obtained. A list of the universities that responded to the survey can be found in Appendix A. The surveyors believed that there would be a greater response rate if the survey was conducted via e-mail rather than traditional mail or telephone. There was 24% response rate with a total of forty-seven universities responding.

The Accounting Department Chair or in some cases the Dean or Director was asked to respond to an eight question survey. A copy of the survey can be found in Appendix B. The surveyors asked questions relating to changing from a two course Intermediate Accounting sequence to a three course Intermediate Accounting sequence. Data requested dealt with topics such as when the change was made, implementation time, and how the additional course was accommodated in terms of the overall program. Other questions related to the attitudes of the faculty concerning the change and how the success of the students is being measured. There was also an area for the respondent to voice comments or concerns.

After allowing adequate time for responses, the results of the survey data were then compiled and interpreted. The responses were analyzed to find any discernable trends that could be established in relation to the possible transition. Specific areas addressed were the number and types of institutions who had made or were in their process of making curriculum changes to their Intermediate Accounting courses and their AACSB accreditation status. Additionally, the possible problems such as faculty attitudes and funding problems encountered in making the transitions were considered. Finally the methodology being used to implement the change was examined in an effort to see if the changes had received their desired results.

RESULTS

Sixty percent of the universities responding to the survey indicated that they are still using a two course Intermediate Accounting sequence with each course being three credit hours and have no plan to change. Twenty percent of respondents indicated that they had made the change to a three course sequence. The remaining 20% are in the process of making the change or have made another change such as changing the courses from 3 credit hours to 4 credit hours.

The data did not demonstrate a conclusive linkage between a college's accreditation status and a change in teaching pedagogy. The percentage of AACSB accredited institutions making changes was not substantially different than those institutions that were not accredited. For the universities that had made changes, only 47% of them were AACSB accredited in Accounting. It was concluded based on the responses given that there was no direct correlation between accreditation and the number of courses offered in the Intermediate Accounting sequence.

One of the survey questions inquired as to the reason that the change was made. The responses were centered on improving student learning and allowing for a more in-depth coverage of certain topics. Several universities also indicated that the new International Financial Reporting Standards will need to be covered once they are finalized, and will likely create a need for more class time.

The surveyors found that even though some of the universities were not offering a three course sequence in Intermediate Accounting, they had made other relevant changes such as pushing some material that is usually covered in Intermediate to an Advanced Accounting course or a Master's level course.

CONCLUSION

There was wide spread acceptance that changing the curriculum was a proper move by institutions who had changed their Intermediate Accounting structure. None of the schools surveyed indicated that they were considering going back and reducing their financial accounting coverage. There was also general acceptance among most respondents that something needed to be done to give students an opportunity to cover the increasing amount of information. A number of universities indicated that they were currently reviewing the matter. Even among schools that were not currently considering changing their Intermediate Accounting coverage, none of the respondents stated that they believed a change would have a negative effect on their program.

Some of the main hurdles that had to be overcome were largely jurisdictional problems. Items such as reducing the number of elective choices for students and mandated limits on the maximum hours required for graduation provided stumbling blocks. Additionally it may be inferred that some faculty outside of the financial accounting area felt threatened that their classes would be cancelled or degraded to elective status. In conclusion it may be stated that many institutions, once they have examined the pedagogy, will see a need for change. The body of knowledge is expanding so rapidly that to not adjust the curriculum will leave students at a competitive disadvantage on the CPA exam and in the workplace.

REFERENCES

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APPENDIX A

Appalachian State University	Queens University of Charlotte	Washburn University
Arkansas State University	Rhode Island College	WCPA
Babson College	Saginaw Valley State University	
Brigham Young University	Trinity University	
Edgewood College	University of Alabama	
Florida Gulf Coast University	University of Arkansas	
Florida International University	University of California- Irvine	
Frostburg State University	University of Denver	
George Mason University	University of Florida	
Idaho State University	University of Memphis	
Lenoir-Rhyne University	University of Minnesota	
Maryville University	University of Nebraska- Omaha	
Minnesota State University- Mankato	University of North Florida	
Mississippi State University-Meridian	University of Northern Iowa	
Mount St. Mary's University	University of Tennessee- Knoxville	
Michigan State University	University of Texas- El Paso	
Niagara University	University of Virginia	
Northeastern State University	University of North Texas	
Penn State- Harrisburg	University of South Dakota	
Pepperdine University	Valparaiso University	
Purdue University	Virginia Commonwealth University	



APPENDIX B

Intermediate Accounting Survey

1. School name:
2. Is this university AACSB accredited (yes or no) Business _____ Accounting _____
3. Reasons for change: Why did you change from 2 courses to 3?
4. Time implemented: How long have you been doing the 3 course sequence?
5. How did the university accommodate the extra course?
 - (a) Add an extra course?
 - (b) Add another course?
 - (c) Limit electives?
 - (d) Other? (describe)
6. Faculty Attitudes:
 - (a) Initial faculty response?
 - (b) Do they like it now?
 - (c) Have they considered switching back?
7. How is the university measuring the success of the students?
8. Other comments or concerns?

THE ROLE OF INTERNSHIPS IN ACCOUNTING GRADUATE EDUCATION

W. R. Singleton

Western Washington University

ABSTRACT

The accounting profession has often advocated and recognized the importance of internships in accounting education. Internships are viewed as serving an important role in bridging the gap between the classroom and workplace, in providing enhanced classroom and learning experiences, for improving job opportunities and other benefits. The purpose of this paper is to extend the literature on internships in accounting education by determining the extent of use of internships at the graduate level of accounting education. Preliminary results of content analysis of the graduate programs in accounting indicate that internships are used, but there is substantial variation in the extent of use among programs. The implications of the results of this study can be useful for the continued evaluation of internships in accounting education and also contribute to the discussion of the role of internships in accounting programs as they adapt to the 5th year requirements for the CPA exam.

INTRODUCTION

The discussion of the role of internships in accounting education has a long history; from the American Accounting Association's (AAA) 'Report on Internship Programs (1952) to the recent American Institute of Certified Public Accountants' (AICPA) study of 'Internships and Experiential Learning' (2003). Prior research indicates that a substantial number of schools offer internships at the undergraduate level. The consensus of the literature is that internships benefit all involved parties – students, administrators and employers. The discussions and research to date have focused on the role and benefits of internships in undergraduate accounting education. The purpose of this paper is to determine the role of internships in the accounting curriculum at the graduate level.

The paper will initially discuss the accounting profession's view of internships, followed by an analysis of the research of the costs and benefits of internships to students, employers and academic administrators/institutions. The next section will review the literature on the extent of internships in the accounting curriculum. The research of internships in the graduate accounting curriculum will be presented, followed by a summary and conclusion of the results of the paper.

THE ACCOUNTING PROFESSION'S VIEWS OF INTERNSHIPS AND EXPERIENTIAL LEARNING

A major representative, although not exclusive, of the accounting profession is the American Institute of Certified Public Accountants (AICPA). The AICPA recently completed a study on internships and experiential learning (2003). The report provided a definition of internships as "...work experience in industrial, business, or government work situations that leverage(s) the class guidelines experience through practical work experience. It allows students the opportunity to translate academic theories and principles to action, to test...career interests and to develop skills and abilities through carefully planned and supervised programs." (AICPA, 2003). The report indicated that internships (and other experiential learning programs) should help students apply classroom knowledge/skills, make better assessments for career choices and obtain permanent employment. In addition, the study provided guidelines on how internships could be used as a vehicle to achieve the AICPA core competencies.

Other professional groups reached similar views. Earlier, the American Accounting Association (AAA, 1952) suggested examples of the benefits that internships provided to students were an introduction to issues not developed in the classroom, an increased awareness and appreciation of classroom experiences and a more general understanding of the business world. The Accounting Education Change Commission (1990) recommended active learning processes, such as internships, that would result in desirable abilities and knowledge for the accounting graduate, such as experience in solving 'real-world' problems and working with others within an organization to accomplish goals and objectives. A consortium of professional groups (AAA, AICPA, IMA and the larger international accounting firms) sponsored a study of the state of accounting education by Albrecht and Sack (2000). They noted that one of the problems with accounting education was the inadequate usage of out-of-classroom learning activities. The study provided results of a survey of educators and practitioners that indicated that internships, if effectively managed, were the best means of achieving out-of-classroom learning activities.

Similar survey results of practitioners in a regional study (Burnett, 2003) also found that internships were deemed to be the most important activity for out-of-classroom learning. Siegal and Sorensen (1994) conducted a study on behalf of the IMA and FEI and found that 20% of the respondents to a survey preferred job applicants with internship experience. Similar results of positive views of internships by practitioners and educators were obtained in an earlier study by Singleton and Estep (1979), although academics questioned the feasibility of being able to effectively provide a sufficient number of internships for the anticipated demand.

PERCEIVED COSTS AND BENEFITS OF ACCOUNTING INTERNSHIPS

The costs and benefits of accounting internships accrue to three major groups: students, employers and administrators/institutions. The profession's positive view of internships was based, to a large part, on the benefits that would inure to students. Most of the research on accounting internships confirmed the benefits predicted by the profession. Student benefits of contributions of internships to classroom experiences were found by Lowe (1965) and Beard, D.F. (1998). Lowe's (1965) study found that interns felt that internships enhanced or clarified concepts from the classroom. Beard, D.F. (1998), in a survey of program administrators, found respondents indicated that the link between internships and relevance for classroom learning was the second most important benefit of internships for accounting students.

The relationship between internships and improved academic performance was also a topic of research. Koehler (1974) predicted that internships provided students with incentives to study harder, which would lead to improved academic performance as measured by higher grades. A comparison of pre-internship and post-internship grade point averages (GPA) of students that had internship experiences confirmed his prediction. Knechel and Snowball (1987); however, found a decrease in overall GPAs after an internship experience except for the auditing class. The result of no improved performance in GPAs after internships, except for the auditing class, contradicted Koehler's findings and the normative predictions of the profession. Knechel and Snowball noted that the internships were usually at the end of the student's academic career and attributed the results to 'senioritis'. When the internship was experienced earlier in the student's academic career in an internship program that allowed more flexible scheduling, English and Koeppen's (1993) study results supported the prediction that internships enhanced academic performance as predicted by the profession and Koehler. Students with internship experience had higher overall GPAs and accounting course GPAs after an internship than non-internship students.

The performance-internship relationship was also studied from the perspective of career opportunities and success. Respondents in D.F. Beard's (1998) study indicated that improved career opportunities were the most important benefit of an internship for students. This view matched the profession's goal of internships providing a contribution to subsequent careers and was generally supported by the research results. Pasewark, et al (1989) found that internships improved the probability of obtaining off-campus visits with large accounting firms. Siegel and Rigby (1988) results indicated that students with internship experience and later employed by the firm received better performance evaluations and were promoted at a more favorable rate than those without internship experience. Maletta, et al (1999); however, found differential effects of internships that raised questions about the overall performance-internship relationship results. Their study of 161 undergraduate, tax students found that internships generally aided individuals with lower vs higher learning aptitudes, and that the later knowledge acquisition benefits of internships depended on the type of assignment (tax return preparation vs. tax research) the student had. Thus, internships may be linked to improved subsequent job performance, but not to as general a degree as previously predicted.

Additional internship benefits accruing to students were identified in the literature and summarized in D.F. Beard (1998). For example, financial benefits (cost savings), training in the latest technology, a setting for human relations development, opportunities for application of communication and problem solving skills and individualized curriculum were noted. Research indicated that benefits from internships were not limited to students; however, but also accrued to employers.

The benefits of internships to employers were posited by Lang (1979), Paperman (1979), Ricchiute (1980), Goodman (1982), DeFilippis (1982), Chandra & Paperman (1983) and, internationally, Masumoto (2004). Examples of the benefits noted were enhanced visibility of the firm on campus, facilitation with the recruiting process and improved screening of prospective candidates, extra help during peak times or for special projects, reduction in training costs and injection of new ideas into the firm. Case studies and interviews by Masumoto (2004) found that some of the perceived internship contributions by Japanese firms were "...to introduce some potentially useful variation in well-established routines..." (p. 23) and to aid in "internationalization" of the firm. Respondents to the Beard, D.F. (1998) survey indicated that recruitment and part-time/special project work needs were the most important benefits to employers.

The Beard, D.F. (1998) study also identified benefits to accounting programs of an administrative nature, although, the benefits could easily be classified as accruing to students. The two benefits rated most important were enhanced placement opportunities for graduates and reinforcement/enhancement of classroom experiences. Additional benefits noted were industry support for the accounting program, an avenue for feedback about the accounting curriculum, diversified learning options for students, 'real world' insights for faculty and potential advisory committee members. Related comments were voiced by Bailey (1995).

The tendency for many of the internship benefits to be mutually enjoyed by students, employers and administrators was highlighted by McCombs and VanSyckle (1994). In their study, "Accounting Internships: A Win-Win Arrangement," four benefits were identified that had mutual benefits to students, employers and administrators: facilitation of recruiting, providing extra help, improving public relations and lowering cost. Although numerous benefits were noted among the various groups, the McCombs and VanSyckle study also raised the issue of potential detriments or disadvantages.

McCombs and VanSyckle (1994) indicated that 39% of employers did not note any significant disadvantages to internship programs; however, a small percentage indicated some concern that relations with universities and students might be damaged if the internship experience was not satisfactory. Students and administrators did express concerns over scheduling, and administrators raised the issues of the extra administrative and program management time cost and costs associated with monitoring quality control for the program. Additional concerns or disadvantages associated with internship programs were raised by Beard, V.K. (1997), in which she found deficiencies in performance evaluations and feedback for interns. Similar results were noted by Masumoto (2004). This concern was also expressed in the Albrecht and Sack (2000) study, in which respondents indicated that effective internships required faculty monitoring and student evaluation by both the school and the firm.

In summary, research indicates that the profession, students, employers and administrators all share a positive attitude about internships and feel that internships provide major contributions and benefits to accounting education, the students and employers. Potential problems, concerns and disadvantages are noted; however, the consensus seems to be that the perceived benefits exceed the costs/disadvantages.

INTERNSHIPS IN THE ACCOUNTING CURRICULUM

Research indirectly indicates that the use of internships in the accounting curriculum has increased over time. Schmutte (1986) indicated that two-thirds of the respondents to a survey offered internships. The proportion of respondents offering accounting internships had increased in a later study by D.F. Beard (1998) to over 75 percent. It should be noted; however, that in both studies, there could be an upward response bias due to programs without internships that may not have answered the surveys or questionnaires. Thus, a disproportionate number of responses may have been from those programs that offered internships.

In response to the increased importance of internships, D.F. Beard (1998) conducted an extensive analysis of the role of internships in undergraduate accounting programs. She found that of those programs that offered internships, almost 60 percent offered credit for the internship, and when credit was granted, almost 80 percent of the respondents indicated that the credit was 6 semester hours or less. Each credit earned required an average of 74 work hours. The programs tended to be flexible, with 88 percent offering year-round enrollment and 68 percent of the internships being in the student's junior year. This result is consistent with the English and Koeppen (1993) 'flexible-program' recommendations to offset the Knechel and Snowball (1987) 'senioritis' effect. Results of the study do not appear to offset completely the practitioner and administrative concerns about the importance of monitoring internship programs. Approximately one-third of the internship programs required on-site visits by the faculty supervisor, although 55% of the respondents recommended on-site visits. The concern and perceived importance of student evaluation and feedback was addressed by the study, with almost 70 percent of the respondents indicating at least one evaluation of the intern by the industry supervisor, with less than 5 percent indicating that no evaluation was made. This result is inconsistent with the V.K. Beard (1997) results of limited feedback; however, it should be noted that the V.K. Beard study used a limited sample of eleven public accounting interns in one state.

INTERNSHIPS IN ACCOUNTING GRADUATE PROGRAMS

This section of the paper provides an initial inquiry into the issue of the use of internships in accounting graduate programs. The curriculum and course offerings of those schools offering a Masters of Accounting (or related Masters level degree with a specific accounting designation) as noted in Hasselback (2006 – 2007) were

selected for analysis.. MBA programs, including those with an accounting emphasis, were excluded at this stage of analysis to isolate those internships specific to accounting.

The total sample size was 110 programs (90 public universities and 20 private universities, as classified by College Source Online, 2005). Content analysis (Wallen & Fraenkel, 2001) of course offerings was used instead of survey methodology employed in previous research to counteract or minimize any non-response bias or 'halo' effects for responses. Analysis of the course offerings of the 110 school sample indicated that 25 programs (23%) offered internships, and 85 did not.

Most (21) of the schools that offered graduate credit for internships in the Masters of Accounting programs were public schools. The internship schools were geographically scattered across 17 states of the US, with only 5 states having multiple graduate-level internship programs within a state. A substantial portion (21) of the graduate level internship programs were AACSB accredited. In the graduate internship programs, 80% did not require the internship. Internships were only required in 2 schools, although another 2 highly recommended them. Internship credit was typically not a substantial portion of the graduate program requirements, with RW% being 10% or less in 18 of the 25 internship credit institutions. However, two schools allowed 29 or 30% of the program credits to be earned via internships.

SUMMARY AND CONCLUSIONS

A survey of previous research of internships generally revealed that a substantial number of schools offered internships in the undergraduate accounting curriculum. The consensus of the accounting profession was that internships provided benefits to students, employers and universities that exceeded any costs or disadvantages. This initial inquiry extended the literature by examining the role of internships in graduate programs, specifically the Masters of Accounting. The results indicated a more limited use of internships in graduate level programs, relatively speaking. There were not a substantial number of schools offering internships, and of those with internships, few required internships and most allowed 10% or less of credits to be in internships.

The results of this analysis of the use of internships in graduate accounting programs have useful policy implications for the profession in its deliberations of the importance of experiential learning in the accounting curriculum. In addition, the modest use of internships may indicate a window of opportunity for internships to serve as a means of contributing to the 5th year requirements of many states. Students could satisfy some of the requirements for additional hours of education, while also realizing the benefits suggested by previous research and the profession. Of course, obvious limitations on the research either preclude or limit the generalizations of the results of this study. Small number sample sizes and exclusion of MBA programs with an accounting emphasis from the sample need to be addressed in future research. However, with these limitations in mind, the results do suggest that internships are finding their way into the graduate accounting programs although on a limited basis, and that the perceived benefits for internships are available in some cases.

References are available upon request.

REAL-WORLD PROJECT FOR FINANCE COURSES A NEW STARTUP: IS THAT DREAM FEASIBLE?

Nancy R. Jay

Mercer University – Atlanta

Atul K. Saxena

Georgia Gwinnett College

ABSTRACT

One of the important mandates of accrediting bodies of business programs, e.g., AACSB, is learning outcomes that relate theory with practice. Indeed, they approve of pedagogical tools that foster practical applications of theoretical (sometimes complex) concepts. Additionally, prospective employers, course instructors, and students themselves are interested in obtaining valuable skills such as conducting research, team building, leadership, and interdependence. This paper describes a project that is a real world simulation of a new business startup that allows students to acquire those additional skills mentioned above. The project is suitable for graduate (MBA) and upper-level undergraduate business courses. Non-traditional business students, in particular, often desire to establish their own firms. This project directs their focus on the achievement and profitability of their future dreams while applying what they learn.

INTRODUCTION

Social scientists and academicians have stressed offering students multiple techniques of pedagogy for better learning outcomes. Some of these techniques include short one-minute papers, more detailed research papers, simulations, power point presentations, and real-world projects. Research has shown that generation-X'ers actually prefer experiential learning to the more traditional lecture-based pedagogy (Bale and Dudney, 2000). Frequently professors spend a lot of time and effort searching for projects to supplement their lectures and text book to enrich their coursework. The accrediting bodies encourage business schools to include such pedagogical tools that bridge theory with practice. While this has been a perennial desire for instructors, lately there is an increased demand from prospective employers and potential student graduates to obtain these valuable hands-on experiences by simulating the real world before entering the job market.

One of the more important learning goals of business students today is the application of what they learn in class to real situations. While applicable to both graduate and undergraduate students, practical learning goals are a more immediate desire for the former group. This paper describes a real world project that can be used in upper level undergraduate courses, but is particularly geared towards graduate students. The project requires students to apply advanced financial analysis to the start up of a small company. The authors have regularly required this project in their MBA (and undergraduate) courses for a number of years with good results. Since most of the students enrolled in the core graduate corporate finance course of our MBA program are classed as non-traditional, they frequently have a dream of establishing their own company, of being entrepreneurs. This project provides them the opportunity to apply theoretical concepts and focus on the costs and benefits of their future plans.

Viewing business functions on a small scale provides insight in understanding the interactions among functions in larger, established firms. While the following discussion involves the application of financial analysis, the project can be modified for any other business discipline, such as management or marketing. Over the course of study in an MBA program, it can also be used as a continuing project, adding facets to the study in each discipline. It may be modified to provide an examination of the practicalities in setting up businesses for other professionals, such as medical offices, engineering firms, etc. Its main benefit for the student is to encourage the disciplined thought and planning required in establishing a successful business.

The rest of the paper is organized as follows. Section II reviews the relevant literature. Section III discusses some desirable attributes of a class project to supplement other course work. Section IV explains the project in detail. Based upon procedural logic, Section IV is further divided into four sequential sub-sections. Section IV-A discusses the process of selecting an appropriate company, Section IV-B covers the statement of assumptions, Section IV-C contains information on the cost of capital and cash flow estimations, Section IV-D discusses prevalent capital budgeting techniques and project acceptability analysis, and Section IV-E discusses the risk analysis of the project. Finally, Section V summarizes the paper and provides some concluding remarks.

RELEVANT LITERATURE

In a classic study on how to frame classroom learning experiences that model necessary attributes for the foundations of success, Bruner, Gup, Nunnally and Pettit (1999) found the following characteristics as most important:

1. Select cases that employ, exercise or explore a tool or concept
2. Highlight the dilemmas of the decision maker
3. Set the numbers and critique them
4. Embrace uncertainty
5. Demand the action recommendations arising from analysis
6. Look for unintended consequences
7. Explore opportunities for further work.

Remarkably, the project explained in this paper meets most, if not all, of the above criteria.

Bale and Dudney (2000) surveyed students to research their preferred mode of learning. They find from their survey results that for Generation X students (born between 1961 and 1981) "hybrid" teaching models incorporating both andragogy (self-directed, self-motivated) and pedagogy methods are most effective. Making reference to another related study they go on to conclude that Generation X'ers want to see value and relevance in education, or they are not motivated to learn new skills. They prefer experiential learning using as many of the five senses as possible (Caudron 1997). The startup project explained here is an example of hybrid teaching model that incorporates both andragogy and pedagogy.

Deeter-Schmelz, Kennedy, and Ramsey (2002) conclude that team projects play a vital role in modern pedagogy. Moreover, as team projects become even more common in business courses, an increased understanding of factors contributing to team effectiveness is necessary for instructors to assist students in realizing the potential benefits of this pedagogical tool. Drawing from a wide base of literature on team research, they develop an input-process-output model of team effectiveness. This model was tested using data from 85 teams from marketing classes. Results support the positive and direct role of cohesion as an input variable on teamwork. Ashraf (2004) finds that in business schools across the United States, one of the most common pedagogical tools is the use of groups and group projects. "Passive" instruction (i.e., lecture only) is considered to be an inferior mode of teaching. He suggests that the use of group-based projects as pedagogical tools should be reconsidered despite the potential free-rider problem. Although the problem of free riding in group projects in the real work environment may be mitigated by other factors, free riding in a classroom can result in higher grades for the relatively less motivated students at the cost of lower grades for industrious students. Since we suggest that our project be preferably given as a team assignment, recommendations of both studies [Deeter-Schmelz *et al* (2002) and Ashraf (2004)] are met.

A simulation, like any pedagogical tool, must be evaluated in terms of its effectiveness in achieving course objectives. In a study, Chapman and Sorge (1999) investigate how well a particular simulation does in achieving course objectives and compare its performance to the textbook and papers used in the course. They find that compared to the textbook and research papers, students consistently gave simulation the highest ratings on several learning related measures. In another study, Olson, Shipley, Johnson, Dimitrova *et al* (2006) discuss and encourage the use of simulation as a pedagogical tool. While their simulation is developed for Eastern European transition economies, it is applicable to any pedagogical learning situation but more specifically to the general operations of the firm at the microeconomic level of decision-making. Our project conforms to both, Chapman and Sorge (1999) and Olson *et al* (2006).

While most of the above studies pertain to general education and general business courses, there is some literature that is specifically relevant to finance courses. For example, Gurnani (1984) extensively reviews and compares capital budgeting concepts as advocated in theory with the methods employed by industry. Capital budgeting is an interdisciplinary function, involving diverse areas such as engineering, finance, and management. The ability of a firm to make sound decisions in this area rests not only on the theoretical techniques employed but also on the judgment, intuition, and creativity of the analysts and decision makers. He claims that the academic literature has concentrated heavily on developing and refining quantitative evaluation criteria, methods of measuring return, risk analysis techniques, and procedural aspects of capital investment decision making. However, academic research has been criticized because it tends to be essentially concerned with accuracy of analysis, sophistication of methodology, and improving conditions in a laboratory setting without regard to the realities of corporate decision making. An important reason for the gap is a lack of bridging theory with practice at the school level. We feel that our project is the perfect bridge.

Benton Gup (1994) surveys academics and practitioners and ranks those finance concepts considered most important for students to acquire. The academia ranks present value (discounted cash flow), capital budgeting, CAPM, capital structure, and valuation as the top five financial concepts for this purpose. It is striking that all five are included to some degree in the project discussed in this paper. The practitioners' rankings exclude CAPM and valuation but include accounting and cost of capital. This project requires a critical understanding of the cost of capital concept.

In what has to be one of the most comprehensive and impressive studies in corporate finance, Harvey and Graham (2001) sampled 4440 firms receiving responses from 392 chief financial officers (CFO's) to examine the proverbial *bridge* between theory and practice. Their findings are both reassuring and surprising. It is reassuring to them that NPV is dramatically more important now as a project evaluation method than it was 10 or 20 years ago. The CAPM is also widely used in the real corporate world. However, they find it surprising that more than half of the respondents would use their firm's overall discount rate to evaluate a project in an overseas market, even though the project likely has different risk attributes than the overall firm. This indicates that practitioners might not apply the CAPM or NPV rule correctly, perhaps indicating a need for a better bridge between theory and practice. A class project such as proposed in this paper might be useful to reinforce this bridge. It is also interesting that CFOs pay very little attention to risk factors. They go on to identify fundamental differences between small and large firms suggesting that small firms are less sophisticated when it comes to evaluating risky projects as they are significantly less likely to use the NPV criterion or the capital asset pricing model and its variants. Our project heavily stresses these and other related concepts.

Weaver and Michelson (2004) present a useful project that could accompany a corporate finance course to enhance the learning of theoretical concepts. It is a simple Excel model that provides measures of the standard deviation of forecasted internal rate of return (IRR) given traditional data inputs such as annual cash flows, terminal values and equity. The model first calculates IRR using traditional discounted cash flow methods and then provides heuristic estimates of variability measured in terms of "high," "low" and "most likely" values. It also provides an actual measurement of risk in terms of mean and standard deviation and upper and lower quartiles, along with a graphical presentation of various risk parameters. While the Excel model just described is a good class project, our startup project is more comprehensive in nature covering a wider variety of financial concepts.

DESIRABLE ATTRIBUTES OF A CLASS PROJECT

Project assignments vary widely in their complexity and the amount of time needed for completion. For example, an economic ordering quantity (EOQ) model with imperfect quality items can be rather challenging for a typical corporate finance course, it may be well suited for a decision (or management) science course (Wang, Tang, and Zhao, 2007). Most finance class projects do not necessarily have to be as complex as EOQ models. The project outlined in this paper is rigorous yet relatively simple. It is a real world simulation of a firm and the decision making that goes on within it by its financial managers. As discussed above, Chapman and Sorge (1999) recommend the prudent use of such pedagogical tools. However, designing an appropriate project can be tricky and time consuming. From our own experiences in the classroom, we have found that certain key factors must be considered when designing a project assignment.

First and foremost, a good class project must logically follow the concepts learned in class and/or the text. There ought to be opportunities for students to clearly and easily relate to certain key theoretical concepts and apply them in practice through the project. Second, it must be do-able within the term of the course. This project works best with typical 16-week terms but we routinely assign it in graduate classes of 8 weeks.

Another issue is whether a project can be done individually or in a group setting. Most instructors encourage projects to be done in small groups of 3 or 4, depending on the class size. Despite the potential for the classic free-rider problem (Ashraf 2004) discussed in Section II above, group projects support the important goals of team building, leadership, responsibility and mutual trust. Business program accrediting bodies, e.g., AACSB, put enormous weight on these values. Moreover, there are alternative means of mitigating free ridership, e.g., peer evaluation. On the other hand, a situation may arise that is not suitable for teams and group assignment. Such examples include having a very small class size or extremely busy students (executives, etc.) who do not have enough flexible time to meet in teams. A desirable project is amenable to be done individually. We have successfully assigned this project as an individual task as well as a 2-person and a 4-person task.

THE PROJECT

There are several steps involved in this project assignment. The first step involves selecting the type of business to be established. Step two entails setting the assumptions under which the financial analysis will be performed. The third step involves calculating a financing rate (the cost of capital), estimating the revenues and expenses over an extended period of time in the future (say a five-year period). The fourth step consists of applying various capital budgeting techniques to reach an accept/reject decision. The fifth and final step consists of evaluating and assessing the risk involved in the cash flows and profitability. Each step is explained in detail in the following subsections of the paper.

Selection of the Business Type

For class project purposes it is helpful to select a business that does not depend on results of research and development activities, exploration, etc. These unknown or future factors add considerable complexity to the project and undermine the task of estimating probable cash flows from the business by making the whole project seem unreal. Business types such as retail, most manufacturing, consulting, construction, or service make the project more manageable for the student. For those students who do not have a specific type of business they would like to establish, a business run by a family member or friend can be a good choice since discussions with these owners can provide a solid base for estimating the startup requirements, revenues, costs and growth potential.

Over the years, students have run into problems with some business selections. For instance, franchises can be problematic if estimates of revenues, costs, franchise fees, etc are not provided by the franchiser. While some provide adequate information needed to complete the project others provide nothing.

Buying an existing business for project analysis moves the student outside the procedures provided in classroom discussion in the MBA's core corporate finance course and therefore makes the project more difficult for them. This activity is best analyzed with acquisition procedures rather than the capital budgeting procedures used in this project. Indeed, this variation of the project can be used for a course on Mergers and Acquisitions.

Not-for-profit businesses are frequently avoided by students because they assume that they are not suitable for a profit analysis. However, since these businesses must take in at least as much money as they spend to stay in existence, they are as appropriate for this project as a for-profit business. Businesses that require very large capital outlays at startup for assets with lives longer than the project horizon (say 5 years) will generally not be profitable within the analysis period. This problem can be overcome and is discussed in Section IV-C.

Statement of Assumptions

A statement of assumptions used to estimate cash flows is an important habit for students to build. While in the project its function is strictly to build the initial cash flow estimates and provide a base for risk analysis, in an actual establishment of a firm it allows periodic reassessment of the progress expected. Should what initially appeared to be a profitable venture fail to meet projections or economic conditions worsen beyond expectations, the owner may need to either take alternative measures or shut down before losses become excessive.

For a project manager in an established firm, changing assumptions may invalidate prior capital budgeting cash flow estimates. It is the responsibility of the project manager to keep upper management informed of these changing circumstances and to re-estimate the probable profit of the project. Failure to do so can significantly impact the profitability of the firm and in turn have a devastating affect on the career of the project manager.

Finally, assumptions are also required for the instructor to evaluate the student's ability to apply the concepts implied by them. Assumptions generally include such things as the economic conditions, growth in revenues/costs, hiring of employees, increases in fixed assets, cost of capital, termination revenues/costs, initial inventories/fixed assets, etc. As suggested in the simplified example in Table 1, the best estimate for sales growth is projected to be 5% annually. Students might more reasonably predict sales growth of 25% in year 2, 15% in year 3 followed by 5% growth in both the last two years. As examples, assumptions might also include a significant increase in payroll in year 3 as a planned administrative staff addition occurs. At the same time one might see increased office expenses and depreciation. Note that Table 1 contains a subset of the assumptions for the information on the spreadsheet due to space considerations, i.e. the assumptions used to arrive at the first year's sales figures are not included.

Cost of Capital and Cash Flow Estimates

Since the project involves a startup company, a basic assumption is that at least initially, it is a sole proprietorship and the cost of capital is composed of the student's own required rate of return plus the cost of

borrowing money. Students are asked to call a financial institution to determine what lending rate would be required for a business of the type chosen. The weighted average of these two rates is used as the discount rate for capital budgeting purposes. Students may wish to assume additional investors and incorporate their required rates as well when computing the overall cost of capital.

Students are also asked to estimate cash flows for the initial startup costs and revenue/expenses for five years at which time the business is shut down or sold. The five year life span may appear somewhat arbitrary at first. However from experience, this is a long enough horizon to include most of the changes a new company may encounter so students have the opportunity to manage the growth. At the same time, a 5-year life span of the project is not so long as to make long-term estimates of cash flows too unrealistic and far-fetched. The process and organization of cash flows in this paper follow that presented by Keown, Martin, Petty and Scott¹⁶.

To demonstrate knowledge of current technology (another AACSB mandate), spreadsheets are required for the organization and estimation of cash flows. The initial outlay includes all one-time cash flows that occur at the beginning of the project. This is generally referred to as time period zero or year zero. Table 1 indicates that our sample project requires modifications to the proposed property as well as furniture and fixtures to open. It also has deposits and opening expenses. These could be utility and phone deposits, operating licenses, and the initial advertising campaign. Working capital requirements might include cash for the cash drawers.

The next cash flow category includes revenues and expenses occurring throughout the five-year life of the project on an annual basis. Generally called after-tax cash flows, these include annual revenues, annual expenses, depreciation, and taxes. The format of these cash flows follows the general format of an income statement except that interest expense is not included. All after-tax financing expenses are recovered by the level of the interest rate used to discount the cash flows. The final cash flow category is the terminating cash flows. These include all one-time cash flows occurring at shut down and could include after-tax salvage value, disposal/restoration expenses, sale of business revenue, etc. Since these cash flows occur in year five, they should be netted with the year five after-tax cash flows. At this point students should have six summary cash flows: total initial outlay in year 0, after-tax cash flows for years 1-5 with year 5 including the terminating cash flows.

Additional instructions given to students in this phase can include:

- After-tax cash flows in years 1-5 must vary. Texts frequently repeat the use of year 1 cash flows in all succeeding years of the project life for ease of classroom instruction. Requiring variability forces a more realistic picture of a firm.
- Record cash flows as they occur. While the after-tax cash flows format resembles an accounting income statement, it does not follow accounting practices. Cash flows should coincide with cash going into and out of a bank account.
- At termination students can assume a complete shutdown with or without salvage value or the sale of the company. For firms that had costly and long-lived fixed assets in the initial outlay, realistic profitability will require the sale of the assets or the company in year 5.
- Categories estimated in the after-tax cash flows should be moderate in breadth. For instance, estimates for total revenue and total cost are too broad. For a retail outlet, estimating revenue and costs for every item sold is too detailed. Generally, students are required to estimate categories such as major sources of revenue if growth rates differ, utilities, inventory replacement, salaries/benefits, etc.
- Straight line depreciation or MACRS can be used.

Students who are seriously considering starting the business analyzed in the project are permitted to be as detailed as they feel necessary.

Capital Budgeting Techniques and Acceptability Analysis

Once the net cash flows are obtained, the acceptability of the business is evaluated. Students are required to use several decision criteria methods: pay back period, discounted pay back period, net present value (NPV), profitability index, internal rate of return (IRR), and modified internal rate of return.

- Pay back period provides the number of years required for the initial outlay to be recovered from the after-tax cash flows. Since this is strictly an accumulation of the cash flows in years 1-5, it fails to account for the *time value of money* and is considered to be a less than accurate method and, financially speaking, a naïve way of evaluating the acceptability of the project. Acceptability of the business depends on owner-set criteria. For

¹⁶ Keown, A. J., Martin, J. D., Petty, J. W. and Scott, D. F., Financial Management Principles and Applications, Pearson Prentice Hall, 10th edition, 2005.

example, the initial outlay must be recovered within 3 years. If the pay back is equal to or less than this hurdle, the business is acceptable. Despite its limitations, the pay back period method remains a popular capital budgeting technique (Harvey and Graham, 2001). It is frequently used as a *preliminary* screening measure in large firms and as the sole requirement in cash poor firms.

- Discounted pay back corrects for the lack of use of the time value of money in the pay back method by discounting each year's cash flow to year zero using the cost of capital as the discount rate. Therefore, this technique is regarded as an improvement on its predecessor and not as naïve. It is interpreted in the same manner as pay back but will obviously take longer to recover the initial outlay since the cash flows are in present value terms. Once again, the owner must set the acceptability criterion.
- Net present value (NPV) is the present value of the cash *inflows* minus the present value of the cash *outflows* and provides the dollar estimate of the change in the value of the firm. The business is acceptable if the NPV is positive.
- Profitability index is the present value of the cash *inflows* divided by the present value of the cash *outflows* and provides the dollar return for each dollar invested. The business is acceptable if the profitability index is greater than one.
- The internal rate of return (IRR) is the discount rate that equates the present value of the future cash flows to the initial outlay. It provides the percent return on funds invested *assuming* that the cash flows are reinvested at the internal rate of return as they flow into the firm. This is known as the reinvestment rate assumption. If these funds cannot be reinvested at that rate, the return will not be achieved. For this reason, sometimes the IRR rule is regarded as too optimistic, and the *modified* IRR is computed as discussed in the next paragraph. The internal rate of return must be greater than the firm's cost of capital for the business to be profitable.
- When the reinvestment rate assumption cannot be met, or when a relatively more conservative technique is desired, the *modified* internal rate of return is calculated. All the cash flows are compounded to the final year (year 5 for the project) using a reasonable rate for reinvestment, generally the cost of capital, and totaled to arrive at the future value of all cash flows. The modified-IRR is the implied rate that equates the initial outlay with the future value just calculated. This modified-IRR must be greater than the cost of funds.

If the business is unprofitable, students are asked to discuss some methods that might make it profitable. For example, operating from a home office or obtaining lower cost facilities might delay costs, or slowing/increasing the growth rate might provide a greater spread between revenues and costs. Students are not required to apply these suggestions.

Risk Assessment

Students are also asked to analyze business risk using one of four risk analysis techniques and to discuss their findings. The methods suggested are sensitivity analysis, scenario analysis, decision tree analysis, and simulation. In all cases, the student can also determine the probability of the net present value falling below zero since this requires the average of several estimates of the net present value and its standard deviation. Although these techniques carry different nomenclature depending on the source, their definitions below should be familiar to faculty.

- In sensitivity analysis, the assumptions used in the analysis are changed one at a time to determine those with high impact on the net present value. These are called driver variables and generally require a high degree of confidence in the estimate or the ability to be well managed for an overall assessment of low business risk.
- Scenario analysis involves modifying the expected scenario already presented with the worst case and best case estimates of the assumptions used to create the model. This has the advantage of incorporating the interactions of all the variables into the analysis.
- Decision tree analysis provides re-evaluation points as the establishment of the business progresses. Owners can incorporate their experience at these points to re-estimate profitability. They may decide to expand/contract the business, modify facilities, shut down, etc. The decision tree provides "legs" to determine the net present values for each of the possible paths that the firm might take. The expected net present value and its standard deviation can assist in the risk assessment.
- Simulation provides estimates of the net present value by randomly selecting a value from each variable's probability distribution and combining them for the trial NPV calculation. Computer simulation software is generally instructed to make 1,000 to 10,000 trail runs, creating a net present value probability distribution. The area under the curve below a NPV of zero provides an assessment of the risk of the business.

Summarization of the acceptability of the business including both the decision criteria and the risk analysis concludes the project. Since risk analysis provides no definitive answer for how much risk is acceptable, students must apply their own risk preferences to this decision.

SUMMARY

This paper describes a cost/benefit analysis project for the startup of a new sole proprietorship. It is a real-world project that is easily do-able in any semester format. It is preferably assigned as a group project, but can easily be adapted for individual student assignment. The company type is chosen by the student. Based on the types of assets and services required, students estimate the initial startup cost, the recurring revenues and expenses over the life of the business and any terminating cash flows. After cash flows estimation the business is evaluated for profitability and risk. Students then must decide if they would proceed with that “dream” business.

The project is used for MBA students in their corporate finance course. The idea can also be easily modified to be used in other business courses such as management, marketing or entrepreneurship. A remarkable characteristic is that the project can be used as a thread connecting much of the MBA curriculum, creating a management business plan, a marketing plan, a cash budget, etc. in different classes. It has also been used in undergraduate finance classes by eliminating the risk analysis. Non-business professional programs, such as health care or engineering, where students plan to open their own business, may also find it beneficial.

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TABLE1
Expected Case
Assumptions:

Sales growth:	5%	
COGS:	45%	of sales
Utilities	3%	of sales
Advertising	10%	of sales
Maintenance	5%	of sales

RETAIL OUTLET BUSINESS

(Note that this is a partial set of assumptions, provided as examples.)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Property improvements	\$150,000					
Furniture/Fixtures	\$15,000					
Deposits	\$8,150					
Opening expenses	\$9,000					
Working capital	\$10,000					
Inventory	\$250,000					
Sales		\$550,000	\$577,500	\$606,375	\$636,694	\$668,528
COGS		\$247,500	\$259,875	\$272,869	\$286,512	\$300,838
Payroll		\$40,000	\$40,000	\$40,000	\$45,000	\$45,000
Rent		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Utilities		\$13,750	\$14,438	\$15,159	\$15,917	\$16,713
License		\$200	\$200	\$200	\$200	\$200
Advertising		\$55,000	\$57,750	\$60,638	\$63,669	\$66,853
Maintenance		\$27,500	\$28,875	\$30,319	\$31,835	\$33,426
Office expense		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Insurance		\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Depreciation		\$900	\$900	\$900	\$900	\$900
Income before taxes		\$132,650	\$142,963	\$153,791	\$160,160	\$172,098
Taxes @ .34		\$45,101	\$48,607	\$52,289	\$54,454	\$58,513
Accounting Profit		\$87,549	\$94,355	\$101,502	\$105,706	\$113,585
+ Depreciation		\$900	\$900	\$900	\$900	\$900
ACF	\$442,150	\$88,449	\$95,255	\$102,402	\$106,606	\$114,485
After tax Salvage						\$800
Working capital						\$10,000
Inventory						\$250,000
Terminating Cash Flow						\$375,285

INDUSTRY, BUSINESS WITH EDUCATION: A TEAM

Denise Richardson
Bluefield State College

Burnette Wolf Hamil
Mississippi State University

ABSTRACT

Twentieth-century teaching is not adequate to serve 21st- century students” (Ambach, 1996, p. 207). The publication of *A Nation at Risk* asserted that the nation’s educational system is one important dimension in retaining financial security and economic competitiveness (as cited in Marzano & Kendall, 1998). The U. S. Department of Education (as cited by the National School-to-Work Opportunities Office, 1998) determined that about 90% of new jobs between the early 1990s and the year 2000 would yet require reading and math skills comparable to the college-age skills.

INTRODUCTION

Aronowitz (1996) explained American-born students perform poorly year after year in math and science. In fact, many high school seniors who graduated at the top of their class with respect to grade point average and results on standardized tests still cannot meet minimum college requirements. Hence, foreign-trained employees in professional areas such as medicine and engineering are now employed in large numbers in America. Students who planned to compete for a job not requiring a college degree were no better off. Citing the current educational system as one source of the problem, Aronowitz (1996) noted that students who are quite bright and could do well academically were actually finding themselves unable to be competitive in the real world of work. They simply were not properly prepared by their high schools. Therefore, education must change if it is to prepare students for the 21st century workplace.

The school-to-work reform was one method that strove, in part, to connect teachers, and thus students, with industry and business. Saul (1998) asserted that one failure of America’s educational system is that it is isolated from the labor community. Hence, teacher training, in form of industry and business based workshops, can aid teachers by non-isolating them from the real world. Workshops can teach teachers new curriculum, methods, and assessment that will enhance both academic achievement and workplace skills achievement.

Learn-to-Work was a specific school-to-work program begun in the summer of 1996. It was collaboration among Peavey Electronics, manufacturer of the world’s largest selling power amplifier, the National Science Foundation, and Mississippi State University (MSU). It entailed a three-week workshop offered twice in the summers of 1997, 1998, and 1999, the schedule and plans laid down from a leadership team who brainstormed in the summer of 1996. The first and third weeks were spent on campus at MSU addressing the basic qualities businesses and industries need of their employees. The second week was spent visiting Peavey manufacturing and production plants. One of the participants who also served on the Leadership Team is described below.

A SAMPLE CASE STUDY

Case One-Catherine

Catherine, a European American female, was a member of the leadership team who participated during the summer of 1996. On her application, she listed her age between 50 and 55. The valedictorian of her graduating high school class, she earned a Bachelor of Science degree in microbiology from Mississippi University from Mississippi University for Women. Catherine then earned a Master’s degree in biology education from the Mississippi University for Women. She had 18 years of experience teaching when she joined the Learn-to-Work (LTW) program.

In addition to the formal degrees, she had attended numerous workshops such as Topics in Marine Ecology/Technology, Operation Physics, Science Teachers Discover Physics, Woodrow Wilson Biotechnology, and the Gulf Coast Research Laboratories, to name a few. Additionally, courses were taken in physics. When participating in LTW, she had biology, physics, chemistry, and physical science certification.

Further, she served for 11 years as science department chairperson, directed school science fairs for six years, was the assistant coach of the Math and Science Team for 15 years, Science Quiz Bowl Coach for three years, and sponsored Students Against Drunk Driving (S. A. D. D) for years. She also coached the Academic Decathlon Team for two years. Catherine contributed to her school outside the academic area by serving as official scorekeeper for the basketball teams and co-directing the school's beauty pageant. She was also the school's drug coordinator for two years.

As an active member in professional organizations such as the Mississippi Science Teachers' Association, she served as representative for the Regional V Science Fair. Also, she served as an officer in the Physics Alliance for her local district. A member of the Mississippi Association of Physics Teachers, Catherine was an officer of this organization.

Her expertise was used to conduct workshops for teachers and students K-12 as well as secondary teachers. For example, she let two eight-hour workshops for Elementary School Teachers in her district. Presentations included Introduction to Applied Life Science, Hands-On Activities for Elementary Teachers, Operation Physics Demonstration for Teachers, Physics and Marine Science Activities for Elementary School, Science Leadership Team, and Activities to Complement the New Science Curriculum.

Awards. The Chamber of Commerce in her city awarded Catherine Educator of the Year, the same year she also received an award by the committee for Educational Broadcasting for excellent use of educational television. Two years later, she was named Teacher of the Year by her local Municipal School District. She has also earned the High School Physics Teacher of the Year awarded by the Mississippi Association of Physics Teachers. Twice Catherine has received the Tandy Award honorable mention award, given by Radio Shack, was for outstanding mathematics and science teachers nationwide.

Catherine's reasons for deciding to attend Learn-to-Work. When asked what inspired her to go to professional workshops, Catherine began to give insight into her character. She responded, "Probably the way I was raised." Elaborating, her family members were expected to do their best, "all the time." There was never a time when the family was supposed to get bored. They were expected to stay busy and the expectations were very high. However, Catherine noted that these expectations weren't forced on the family. Her mother, a secretary, and her father, a school principal, encouraged and led by example. She stated, "...and my mother and dad were both like that; were real busy all the time. They never did what was just required. They always showed more than the extra mile."

It is significant to note that Catherine spent eight years in neonatology research. Speaking excitedly about the career, she exclaimed, "I was really right there on the frontier of new discoveries." Relating these research discoveries to workshops she attended, Catherine noted that workshop leaders were often teaching concepts she had used in research in prior years. Although she relayed feeling good about this, it is also made her feel afraid. Elaborating, Catherine explained, "I thought –'alright, what are we doing now [in the science world] that we won't know about for ten more years.'" She further explained that her experience in research had a positive effect on her teaching. Therefore, she felt that it was necessary to go back into the workforce and attend innovative workshops so that she could keep her students current with what was happening in the world of science, math, and technology. Finally, she mentioned one practical reason for attending workshops. She obtained new hands-on activities that supported her philosophy of teaching.

Philosophy of teaching. Catherine stated on her application to Learn-to-Work that, "Education should build character and confidence." She felt that these skills should be built by designing a classroom that was student-centered where students were encouraged to ask questions and have ingenuity. She stated, "Students must learn that answers are not available for every situation; they should have the tools of find answers or solve problems." Further, her philosophy on teaching styles was that lecture is still needed by science teachers, but hands-on is invaluable. She emphasized not just *any* hands-on activities, but those that are particularly related to the real world of work or just life in general. For example, even before Learn-to-Work, Catherine required an activity that required students to make a pinhole camera using coffee cans. This activity was a real world situation in that it mimicked the way that Arabians used to make pictures through the pinholes in their tents in the desert. Catherine also used this activity to explain how photographic paper works. This activity integrated the research of history, chemistry of paper and developing photographs, as well as using math, the language of physics. In addition to the science aspect of this activity, Catherine felt it supported her philosophy that education should incorporate skills needed in life. This activity required students to follow directions carefully, have patience, and use advanced problem-solving skills. Many must try several times to take a photograph that develops at an acceptable quality. In fact, Catherine describe a student who had to work two weeks before he got a good quality picture and stressed that she did not stand over them and tell them how to solve their problem. This method was used because students leaving her advanced science classes would pursue engineering careers, for examples, where they would need to solve problems

without being told how to solve them. Thus, in line with her philosophy of teaching, Catherine used hands-on activities as well as lecture, before participating in the Learn-to-Work workshop.

According to her principal, Catherine participated often in professional development, and he praised her professionalism, pointed out she has a real concern for students and the school. He had observed that Catherine's students were engaged actively in the learning process and scored well in competitions. He gave full support for Catherine to participate in the Learn-to-Work (LTW) workshop and integrate activities into the on-going curriculum.

Catherine's methods before attending Learn-to-Work. One question on a Demographic Survey was "How would you describe the methods with which you taught before Learn-to-Work?" Catherine wrote that she used lecture and hands-on activities. However, the interviews and observations conducted of her classroom lesson plans and products students produced in lab gave more in-depth insight into methods of instruction she used prior to attending the workshop.

The hands-on activities she referred to on the survey were related to the real life of work and "just life in general." She felt coursework should require hands-on in order to be effective. These activities should develop research skills. Catherine felt that when students were actively involved, they learn to think critically. These skills, research and critical thinking, would require that students be good at observation and be self-reliant. They needed to develop skills that utilized science methodology. Yet, the students must also be provided opportunities to work together cooperatively to for solutions.

Describing the activities further, Catherine noted that before Learn-to-Work, they were not always connected to the real world and more importantly, not always taught with methods that developed skills needed in the world of work. Also, not totally hands-on, Catherine still used lecture as a method of instruction where she discussed how the concept being taught related to the real world.

Catherine's methods after attending Learn-to-Work. On the Demographic Survey I asked, "How would you describe the methods with which you teach after Learn-to-Work?" Catherine wrote, "[lecture and hands-on activities] relating industrial applications of physics principles." The interviews and observations of her classroom and lesson plans allowed for more understanding.

Catherine stated in the second interview that her methods changed as a direct result of her attending LTW the following ways. First, she changed activities to reflect more of the minds-on philosophy as opposed to hands-on. Specifically, Catherine changed one activity, described in the next paragraph, on electricity she had normally done. It was changed to support the development of life-long learning, critical thinking, independence, self-reliance, patience, and effort to accomplish a goal.

Before LTW, Catherine required her physics and physical science students to hook a light bulb in a series and then a parallel circuit. Historically, she gave students a small light bulb, two batteries, and a bag full of wires. Most importantly, she gave them step-by-step instructions and invited questions *before* they began

After learning that industry needed independent, self-reliant, critical-thinking, resourceful workers, Catherine changed her method with this activity. She handed students a bag of wires, a light bulb, and two batteries and told them to hook the bulb in series and parallel. She gave them no instruction other than to remind students of the fact that they must have a closed circuit. Laughing, Catherine relayed to me how students, especially physics students, were over confident. [This is considered significant since misconceptions about science principles were common and difficult to alter in a student's knowledge base]. Remarks were made such as, "Oh, I can light this light-bulb." Yet, they began asking for help within 15 minutes. Some even complained they were given a bad bulb. Catherine would not give them the solution. She simply covered up the wires and made them concentrate on how the bulb worked and asked leading questions. In other words, in keeping with her teaching philosophy, and with lessons learned in industry, she guided them until they found the solution. When the light bulb lit, they expressed an understanding they did not have prior to the activity. Their misconceptions were corrected as former knowledge was reconstructed. This activity taught with the method minds-on rather than hands-on was determined by Catherine to promote workplace skills and true understanding. She determined that it was better if students were self-reliant with the teacher only serving as a guide. Better she felt, than the recipe method used before Learn-to-Work where students were give explicit, "how-to" instructions. She did note that this type of method took longer, but the students *understood*. Furthermore, she pointed out that when students found the solutions themselves, they were less likely to forget.

An additional benefit to this method was that students were more motivated. She reported that students, particularly physical science students, who hadn't been engaged the entire year, wanted excitedly to design and build their own cars. Catherine noted they really strove to produce the best car. In short, they were engaged and motivated.

In line with the goals of LTW as well as SCANS, the National Science Education Standards, and Project 2061, Catherine reported that she had “tried to hold my students more accountable for their learning and to develop pride in producing a finished product.” She explained that this change was a direct result of touring Peavey and her community contact, which included a bank and a company that rebuilt motors. She stated that, “Instilling pride in promptness and creative thinking skills are high on my list of priorities required of my students.”

This new philosophy drove Catherine to try a completely new method. She and her students formed a company. She required students to make products such as balloon cars often on an assembly line. Then, her students wanted to sell them and have raffles at school. They designed their own logo and named their company Fizz Biz. The physics students enjoyed knowing the source of their company’s name when others did not. Besides teaching students how to run a business, produce high quality products worthy to be purchased, and teamwork, Catherine described how the company helped build self-esteem since students get to show off their company’s product and they were integral in decision-making. Catherine noted that students took pride in the company and actually got upset with any students who did not work hard to produce a high quality product. She planned to include physical students the next year.

CONCLUSIONS

In summary of Catherine’s change, Learn-to-Work did change her methods of instruction. Specifically, activities were changed to promote critical thinking and lifelong learning, two needed skills mentioned by SCANS (2000). For example, Catherine changed her methods of instruction to reduce the role she played to one facilitator and increased student roles to form a student-centered environment. Altering activities and presentation of objectives, Catherine reduced *telling* students the facts and answers and increased their *discovery* of these facts and answers for themselves. This was done because during the Learn-to-Work workshop, Catherine was informed that industry needed more self-reliance and resourcefulness in workers. Further, Catherine formed a company where students mimicked real world procedures and responsibilities and even sold the products.

Education is the foundation of economic success and the quality of life, It is imperative that as educators we seek ways to increase contact with the “real world” such as industry and business. Upon learning what employers need to see in the 21st century worker, classroom methods of instruction need to be alternated and changed to meet the demands of this ever changing world.

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WHO NEEDS TENURE?: A GLIMPSE OF FACULTY AT FOUR-YEAR INSTITUTIONS WITH NO TENURE SYSTEM

Shawn Woodhouse

University of Missouri-St. Louis

Patricia Boyer

University of Missouri-St. Louis

ABSTRACT

This study explores the job satisfaction of contract faculty at colleges that do not have a tenure system. Data were collected from the National Study of Postsecondary Faculty (NSOPF:99) database. The sample consisted of 403 contract faculty employed at public four-year institutions whose primary responsibility was instruction. Results of the analysis indicated that there were not significant findings regarding job satisfaction and opinions about related issues, but satisfaction with salary and benefits were the two variables with which faculty were least satisfied.

INTRODUCTION

The history of American higher education has witnessed periodic challenges to the validity and practicality of the tenure system. The economic devastation to which American higher education has been exposed at recurrent intervals during state budgetary crises has caused college and university administrators to critically assess the lack of financial flexibility provided in tenure systems (Antony & Valadez, 2002). These phenomena, when coupled together, have the potential to impair the fiscal viability of higher education institutions and practically paralyze institutional functioning in some cases.

Because administrative personnel in higher education lament the presence of tenure during fiscal crises, contract faculty systems have become an appealing alternative. A heightened interest in the employment of contingent faculty is evident, as contingent faculty are now the fastest growing faculty segment in higher education (Mason & Goulden, 2002; Perna & Nettles, 1998; AAUP, 2003).

Newly established institutions that do not offer a tenure system and the consequent prominence of contract faculty systems have altered the traditional employment configuration of academic personnel and the culture of American higher education. This shift in academic employment arrangements may affect the job satisfaction of this new cadre of faculty. The purpose of this study is to determine if the changing composition of the academic workforce has impacted the job satisfaction of full- and part-time contract faculty at institutions with no tenure system.

BACKGROUND

Characteristics of Contract Systems

There are approximately forty-three higher education institutions that offer limited tenure positions or have no tenure systems at all (Chait & Trower, 1997). Several higher education institutions have abolished tenure in order to survive financially, either for all new faculty or faculty hired after a certain date, or for currently tenured faculty (The Chronicle of Higher Education, 2002; Poskanzer, 2002). These institutions adopt one, or a combination of, three types of contract faculty appointments. The American Association of University Professors (AAUP) has defined them as indefinitely renewable (unlimited one- or two-year appointments), restricted renewable (contracts that can be renewed a limited number of times) and "folding chair" (explicitly terminal after a two- or three-year period usually) appointments (as cited in Chronister, Baldwin & Bailey, 1992).

Those institutions that offer limited tenure positions or have no tenure system at all are categorized as purebreds or hybrids. Purebred institutions are those colleges that operate solely on a contract system. Hybrid institutions offer tenure primarily as a secondary option to non-tenure track positions (Chait & Trower, 1997). Hybrid institutions may request that tenure-track faculty reconsider their employment relationship when there is a shift in enrollment patterns, or a demand for additional programs or specialized faculty.

Review of Literature

There are two research studies that are closely related to this study. The preceding studies that were related to contract faculty job satisfaction considered overall job satisfaction as the single construct for measuring professional role satisfaction. Chronister, Gansneder, Harper and Baldwin (1997) broadened this approach by using variables in the NSOPF:93 database to develop two classifications to capture job satisfaction: instructional aspects and broader topics which included benefits, salary and security, to name a few. The full-time contract faculty in this study were relatively satisfied, but males had a higher satisfaction rating in all areas except the quality of undergraduate students. Both groups were satisfied with their overall jobs but were least satisfied with time to keep current in their field, opportunity for advancement, and salary. The means for female faculty satisfaction ratings were slightly lower than those of males in all areas except benefits and spousal employment opportunity. Additionally, the overall job satisfaction rating for both males and females is higher than any of the individual variables that were assessed.

Antony and Valadez (2002) employed the same variables as Chronister et al. (1997), but they used a more definitive set of dimensions to describe the variables. Furthermore, they provided a convincing argument for the use of these dimensions. They explained that in order to capture the complexity and multidimensionality of satisfaction as a psychological construct, it was necessary for them to select 15 items from the NSOPF:93 database, 14 of which can be grouped into three different dimensions: satisfaction with personal autonomy, satisfaction with students, and satisfaction with demands and rewards.

The remaining item, overall job satisfaction, remained a stand-alone variable. The “satisfaction with personal autonomy” scale included the following variables: authority to decide course content, authority to make job decisions and authority to decide courses taught. The satisfaction with students scale included time available to advise students, and quality of undergraduate and graduate students. The satisfaction with personal role demands scale included workload, job security, advancement opportunities, time available for keeping current in field, freedom to do outside consulting work, salary, benefits, and spouse employment opportunities.

Antony and Valadez (2002) examined 20,300 full- and part-time faculty members and discovered that contract faculty were as satisfied with workload, job security, opportunity for advancement, salary and benefits as their full-time counterparts. More full-time faculty were satisfied with the authority to decide course content and working independently, however, than contract faculty. Contract faculty were less satisfied with the time available to advise students and the quality of students than full-time faculty. Additionally, 58% of full-time faculty and 65% of contract faculty indicated that they would choose an academic career again, and contract faculty had moderately higher levels of satisfaction and were more satisfied with their jobs than their full-time counterparts.

METHODS

We analyzed data from the National Center for Education Statistics' (NCES) National Study of Postsecondary Faculty (NSOPF:99) database. Data are collected from the sampled faculty in a multistage effort. Approximately 18,000 faculty and instructional staff from 865 postsecondary institutions completed the self-reported survey (U.S. Department of Education, 2002). Data were analyzed using SAS Statistical Tools and Thomas and Heck's (2001) research that is ideal for handling large and complex data. The margin of error for this study is at the $p < .05$ level. The research questions that are germane to this study are as follows: 1) Is there a significant mean difference in job satisfaction among teaching faculty at institutions with no tenure system based upon gender, age, race/ethnicity, family status or Carnegie classification? 2) Is there a difference in the length of employment at the present institution among teaching faculty at institutions with no tenure system? 3) Is there a difference in contract duration of teaching faculty employed at institutions with no tenure system based upon gender, age, race/ethnicity, family status or Carnegie classification?

Analyses were conducted using MANOVA and post hoc tests to evaluate mean differences among variables by gender, race/ethnicity, family status, and Carnegie Classification. The sample size for this study consists of 403 faculty whose primary activity is teaching. The findings revealed that there were no gender differences between male and female respondents at institutions that do not have a tenure system for all variables studied. These findings are consistent with those of Chronister, Gansneder, Harper, and Baldwin (1997) who found no major differences between male and female contract faculty regarding job satisfaction. Additionally, there were several variables that were statistically significant by Carnegie Classification: satisfaction with salary, satisfaction with job overall, and duration of contract. Post-hoc comparisons revealed that the mean differences were statistically significant for faculty at Doctoral II and Liberal Arts II institutions. The findings showed that faculty who were single with dependents had a shorter contract duration. It is uncertain if the relationship between these two variables had anything to do with the fact that this group of faculty was the least satisfied with benefits.

The findings of this research have implications for graduate students and new faculty who are seeking employment at institutions with no tenure system. It is important that these groups are cognizant of the changing composition of the academic workforce, especially since a number of researchers have indicated that full-time contract faculty have gained unprecedented attention in debates about higher education policy (AAUP, 2003; Chronister, et al., 1997; McMurtry & McClelland, 1997; Chronicle of Higher Education, 2002; NEA, 1996; Chronister, Baldwin, & Bailey, 1992). As the fiscal portfolio of academic institutions is changing, there is a possibility that these groups will no longer have access to tenure line positions.

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WHY CAN'T TEACHERS MIND THEIR OWN BUSINESS?

Jan S. Hogan

Auburn University Montgomery

ABSTRACT

For the dedicated classroom teacher, educating children with varied needs and backgrounds can be tricky business. But in many schools what goes on behind classroom doors has the appearance of anything but business. This is typically due to teachers' perceptions of ineffectiveness since they are often, at the hands of their school system, forbidden to do what they were taught through their teacher preparatory curriculum. Many systems force teachers to use mandated, scripted programs in their classrooms with a one-size fits all mentality. Teaching is serious business, and it is time that we treat it as such by demanding a vigorous commitment to professionalism through the integration of successful business practices in every classroom. This manuscript explores the possibility of seeing the classroom as small business and integrating marketing principles into each one to improve instruction and regain teacher professionalism.

INTRODUCTION

For the dedicated classroom teacher, educating a classroom full of children with varied learning styles, needs, and backgrounds can be tricky business. But in many schools what goes on behind classroom doors has the appearance of anything but business. Teacher attrition is on the rise, especially with new teachers, most of whom leave the profession within five years of entering (Byrne, 1998; Truch, 1980). This is typically due to their own perceptions of ineffectiveness since they are often, at the hands of their school system, forbidden to do what they were taught to do during their teacher preparation.

Mandated programs are taking over, on the rise in many states (Harp & Brewer, 2005). Teachers are no longer allowed, much less required to make decisions regarding the curriculum or its presentation. In fact, one wonders why a degree in teacher education is even necessary. The practice of depreciating the value of the teachers desire to teach along with the very elements that drove the teacher to seek a degree in education in the first place, puts the whole notion of "educator" in peril. The truth is, with the number of scripted programs in place in American classrooms, a degree in drama might be much more useful.

Teaching is an art. It requires creativity, skill, knowledge, assessment of a situation and swift action, enthusiasm, self-confidence and confidence that the student absolutely must have the content. Only certain personalities truly contain the characteristics necessary for a teacher to be absolutely effective. Although there is undoubtedly a certain level of drama incorporated into the teaching style of an effective educator, successful teaching is at its very core, sales. And effective teaching is only accomplished through the teacher's absolute belief that the student must have the product she is offering. Teaching is serious business, and it is high time that we treat it as such by demanding a vigorous commitment to professionalism and the integration of successful business practices in every classroom.

SELLING THE CURRICULUM

The best teachers are salesmen, whether they know it or not. This is not something that is discussed as a part of teacher preparation curriculum, but it should be. I happened upon this topic as a teacher in an inner city school under poor leadership. I remember having the thought that no business could survive using the system of management under which this particular school operated. Years later, as I watched an intern attempting to teach a lesson that she didn't herself understand, I thought, "These children are never going to buy this content." It was at this point that I began thinking about the relationship between teaching and selling, and the characteristics that were necessary for success in both fields; personality, trustworthiness, leadership, and knowledge (among others).

Schiffman states building trustworthiness means building leadership skills (1994), and outlines several characteristics which are necessary to be a good leader in the field of sales. The characteristics which are essential for a good leader in a business or sales arena are strikingly similar to the skills one would expect to see in an excellent teacher.

Successful Sales and Leadership Qualities

An unquestionable characteristic of a good business leader is vision (Schiffman, 1994). This characteristic is also visible in an excellent teacher. Just as a corporate leader has to know where he or she will ultimately lead the company, a good teacher knows exactly where he or she wants to take the students over the course of the school year. And although there is a Course of Study to use as a guide, the professional educator doesn't let the guide become a crutch.

Accordingly, a good leader commands respect (Schiffman, 1994). This leader recognizes that there is a difference in commanding respect and demanding respect. Respect that is commanded is respect that is earned. The same is true of an excellent teacher. There is no need for raised voices, harsh classroom policies, or a "don't smile before Christmas" mentality. The students have confidence in their teacher and want to follow her leadership.

Also to be expected in a good leader is the ability to see the big picture (Schiffman, 1994). This business leader makes decisions that ultimately benefit the company on the whole, while keeping the future of the company constantly in mind. An excellent teacher looks at the students and all that should be accomplished in the classroom, and makes appropriate decisions to reach the anticipated goal.

According to Schiffman, a good leader knows when to change directions (1994). If something is not working for the business, if the climate changes, or if the customer's needs change, this leader makes the necessary decisions and takes the necessary actions to allow the business to adapt to the new circumstances and ultimately meet the consumer's needs. In the perfect learning environment, the educator would be allowed to do the same. If the methods currently used in the classroom don't meet the needs of the student, the teacher should reflect, and come up with an appropriate plan of action in order to achieve the desired outcome.

A good leader points out problem areas and is ready to discuss solutions (Schiffman, 1994). This characteristic requires constant assessment, flexibility, and a willingness to learn. The characteristics, essential in a sales leader, should not only be expected, but demanded in every classroom across the country. Many colleges turn out teachers who do not possess these characteristics, and sadly, many school systems hire them. The end result is unqualified educators incapable of decision making who ultimately lead administrators to adopt programs that include teaching scripts in order to make up for their bad hires.

Confidence in both approach and attitude is essential in a good leader (Schiffman, 1994). Although salesmen might be able to make an occasional sympathy sale without having confidence in his approach and product, it is unlikely that he would be able to create a lasting career without this characteristic. The same is true of the classroom teacher. Students can smell a lack of confidence and insincerity in delivery. They also know when a teacher doesn't have a thorough knowledge of the product that is being sold. This knowledge and confidence can only be achieved through professional development and a commitment to continued learning, along with the absolute belief that the student consumers must have the product being sold.

And finally, a good leader is accountable for results (Schiffman, 1994). Good leaders don't mind being held accountable for the outcome of the business (even when they don't like the outcome) when the ability to make decisions is in their hands. The same is true of an excellent teacher who has a thorough command of the curriculum and an understanding of child development. However, it is difficult to understand how a teacher who is forced to read a script could be held accountable for outcomes that are the result of decisions long since removed from the classroom.

Relationships are built on trust (Gitomer, 2005; Schiffman, 1994; Zigler, 2003), and trust is built on evidence of all kinds. You must be unfailingly dependable in all things, big and small, and you must make a habit of delivering what you promised (or preferably more). Then you will be in a position to say with authority, "Follow me" (Schiffman, 1994, pg.21). The ever present bottom line in both business and teaching is the ability to lead; a skill set which is ultimately evident in the salesman who is trustworthy, knowledgeable, and a determined problem solver. Whether selling widgets or curriculum, the person who embodies the characteristics of a leader will succeed.

Best Practices and Marketing in the Classroom

The term "Best Practices" is not new. It has been around for years and had its beginning in other areas that are considered to be not just professions, but professional (Zemelman, Daniels, & Hyde, 2005). Best Practice Principles are industry standards, and they are used in order to achieve the best possible results with the smartest, most efficient use of time and effort. When reviewing Best Practice Principles written exclusively for the field of education, it is easy to see the connection they have with the marketing of a product in the retail world. These principles easily fall under the jurisdiction of what are arguably the most important strategies of marketing.

Target Audience

Marketers appreciate the critical element of understanding the market where a product will be placed (Gordon, 2003). Without this information, a company could find themselves attempting to sell ice cubes to Eskimos. In the classroom, teachers face the same situation. The best teachers understand that the product, or rather the curriculum, must be presented in a way that best fits the audience. In order to present the curriculum in a way that will allow the students to learn through the most efficient use of time and effort, the teacher must understand the backgrounds of the students being taught. This demographic information will alter the way the material is presented, allowing the teacher to insure that the curriculum fits the “Challenging Principle”(Zemelman, Daniels, & Hyde, 2005), but is not challenging beyond the students’ ability to learn.

Build Relationships with Your Costumers

Make it personal! In the business world, the experts agree (Smith, 2005; Gitomer, 2005; Schiffman, 1994; Zigler, 2003) that it is critical to know your client and make a personal connection to them. This is also true in the classroom, regardless of the age of the student or the degree sought. It is important to understand that a relationship is not one-sided. In order to get to know your student, you must let them know you. This is somewhat uncomfortable for many teachers who prefer to keep their personal lives personal, but if you want to be trusted by your students; if you want to lead them, you will have to be something of an open book. Sharing stories builds trust, and once your students trust you they will feel that it is their responsibility to perform at their highest level.

Situation Analysis

It is critical to understand your situation as it exists today. This information will provide a benchmark and will bring marketing advantages and challenges to the forefront (Gordon, 2003). In the educator’s world, this is known as assessment. Authentic Assessment is, at its very core, situation analysis in the classroom. Effective educators understand authentic assessment, how to design it, how to administer it, and how to interpret the data it yields. Just as situation analysis in marketing provides direction for the business owner, authentic assessment in the classroom serves to steer instruction and the professional decisions that must be made to best serve the students. Just as educators shouldn’t teach to the test (an accusation which often accompanies standardized testing), the product doesn’t change the market. Remember, those Eskimos will never need your ice cubes.

Be Different and Stand Out

Some of the most successful businesses incorporate marketing strategies that present needed products in an environment that integrates elements of entertainment. For example, furniture stores that have Imax theaters where children can view movies while their parents shop for furniture (Smith, 2005), or shopping malls with indoor amusement parks. Some educators ascribe to the old exercise adage, “no pain, no gain” while truly effective educators understand that it is okay for learning to be enjoyable. If Best Practices are adhered to in the classroom, enjoyable learning is likely to take place. The teacher who integrates the Expressive Principle allows her students to fully engage ideas, construct meaning, and remember information (Zemelman, Daniels, & Hyde, 2005). It is understood in this classroom that students must regularly employ the whole range of communicative media; speech, writing, drawing, poetry, dance, drama, music, movement, and visual arts. The educator who includes this principle will truly stand out.

Think Big and Audit Your Time

“How much time is consumed by routine office work someone else should be doing?” According to Smith (2005) salesmen should spend more time with important tasks such as marketing strategies, improving customer relations, and implementing new strategies to expand services. When teachers utilize Best Practice Principles in their classrooms (Zemelman, Daniels, & Hyde, 2005), thinking big and auditing time automatically fall into place. For example, through the “Experiential Principle,” active, hands-on learning takes place. Students have concrete experiences, the most powerful and natural form of learning, and are immersed in the most direct possible experience of the content of every subject (Zemelman, Daniels, & Hyde, 2005). The byproduct of presenting content according to this principle is spending less time grading work that yields no real information, thus gaining more time to implement new strategies and grow relationships with students.

Use Customer Service Commandments

Who would argue that when it comes to customer service, that Ritz-Carlton Hotels set the gold standard? Smith (2005) explains the benefits of following the “Twenty Customer Service Commandments” written by the hotel. These standards outline specific behaviors employees are to demonstrate when dealing with customers and fellow employees. They insure that everyone, employees and customers alike, have a pleasant and memorable experience when at the Ritz-Carlton. What teacher wouldn’t want her classroom to feel like the Ritz-Carlton, or better yet, Disney World...both huge organizations that value customer experience above all else. The educator can learn a lot from these organizations when it comes to meeting the needs of children (or students of any age for that matter). By teaching curriculum that is Holistic, Authentic, and Developmental in nature (Zemelman, Daniels, & Hyde, 2005), the teacher takes some important “Best Practice” steps toward living up to the Credo of the Ritz-Carlton: The genuine care and comfort of our guests is our mission (Lampton, 2003).

CONCLUSION

Like the Ritz-Carlton Hotel, the classroom should be a place where genuine care and comfort of student guests is the highest mission of the teacher. Educators should focus on creating a climate that is warm and relaxed, where each experience enlivens the senses, instills well-being, and fulfills even the unexpressed wishes and needs of their students. The incorporation of sound marketing principles and best practices is a giant step toward the transformation of the classroom, and will most certainly aid in elevating the status of educators to that of true professionals in a field which proudly exudes success.

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EXAMINING PROCRASTINATION VS. CRAMMING FROM A SELF-REGULATED LEARNING PERSPECTIVE

Li Cao

University of West Georgia

ABSTRACT

Procrastination and cramming remain to be a common practice among students. This study distinguished procrastination and cramming as different concepts and examined their relationships with motivation, study strategies, and test performance. 194 undergraduate students identified themselves as an ideal student, procrastinator, crammer, or procrastinator-crammer and responded to achievement goals (Elliot & McGregor, 2001) and MSLQ (Pintrich et al., 1993) questionnaire. MANOVA results show that achievement goal orientations, self-efficacy, motivation, and learning strategies varied among the four student groups. Compared to the procrastinator group, the crammer group had significantly higher test anxiety, but reported more use of the strategy of rehearsal, elaboration, organization, and metacognitive self-regulation. The results support the distinction of procrastination from cramming, and the contention that procrastination and cramming have more maladaptive than adaptive effects on student motivation and strategy use. Directions for future research and implications of the results in promoting self-regulated learning among students were discussed.

INTRODUCTION

The current literature presents a rejuvenated interest in the effects of procrastination and cramming on student learning. In this literature, procrastination and cramming are often used as synonyms (Schraw, Wadkins, & Olafson, 2007; Vacha & McBride, 1993; Walters, 2003). Treating procrastination and cramming as synonyms ignores the different cognitive processes and behaviors that procrastination and cramming each entail and prevents a more accurate understanding of their influences on student motivation, learning process, study strategy, and academic performance. This study describes procrastination and cramming as different concepts. Procrastination refers to intentional delaying work that must be completed. Cramming refers to engaging in intensive study in a short period of time before an exam or assignment is due.

The current literature still debates on the effects of procrastination and cramming. On one hand, procrastination and cramming is viewed as a negative personal trait (Lay & Schouwenburg, 1993) and associated with massed practice, which is not favored over distributed learning. It may lead to lost time, poorer health, decreased long-term learning, lower self-esteem and negative impact on learning and achievement (Milgram, Dangour, & Raviv, 1992). When it does work, it is just another way students manage to beat the system by earning good grades without learning (Sommer, 1990). On the other hand, the commonly held belief that procrastination and cramming is ineffective, undesirable, and hinders learning is challenged. Based on the fact that successful and experienced students routinely procrastinate and cram, research has started to examine the possible adaptive values associated with this behavior. For instance, students reported that course materials become less boring, more interesting, and more engaging when they procrastinate and cram. Crammers' grades in the course are as good as or better than students who use other strategies, and the longer students are in college, the more likely they will cram. Crammers' GPAs are also relatively high, and they put in a substantial amount of study time. Other benefits of procrastination and cramming include freeing up time for other activities, greater amount of flow-like experiences, and privately rebelling or protesting against the demands of the professors (Schraw et al., 2007; Vacha & McBride, 1993).

In a large measure, student learning is a self-regulated process. Students determine mostly when and how to engage in the learning process by making a variety of decisions on establishing academic goals, assessing academic competences, using study strategies, and assessing learning outcomes. In college, students adopt different approaches to complete the required course work. Some of them are called self-regulated learners. This group of students engages in learning that results from self generated thoughts and behaviors that are systematically oriented toward the attainment of their learning goals. Research shows that self-regulated learners are knowledgeable about the thinking and learning process and have the strategies to monitor and control important aspects of their learning behavior (Pressley et al., 1987; Winne 1995). This research suggests that self-regulated learning (SRL) includes motivation and metacognition.

This study adopts the two-factor model of SRL and focused on two motivational beliefs often used to describe self-regulated learners: academic goal orientations and self-efficacy. Achievement goal orientations typically refer to

cognitive representations of the different purposes students may adopt for their learning in achievement situations (Pintrich et al., 1993; Urdan & Maehr, 1998). These purposes would guide and direct students' cognition and behavior as they engage in academic tasks (Ryan & Deci, 2001). Students with mastery approach goals focus on improving ability, becoming proficient with the material or skills, or trying to thoroughly understand new information. Students with mastery avoidance goals have a perfectionist mentality and strive to avoid misunderstanding or failing to learn course material. Students with performance goals focus on doing better than others, getting good grades or extrinsic rewards, or more generally in proving their self-worth to other people (Ames & Archer, 1988; Deweck, 1992). Students with performance avoidance goals focus on avoiding the demonstration of a lack of ability or preventing the perception that they are not competent with a particular topic or skill. Students with work-avoidance goals strive to minimize the effort they must provide for academic tasks. They prefer not to work too hard or the tasks that can be completed quickly and easily (Middleton & Midgley, 1997; Wolters, 2003).

In addition to the goal orientations, students' abilities to engage in the self-regulated learning depend on self-efficacy beliefs—judgment of their capability to accomplish tasks and succeed in activities (Bandura, 1997; Pajares & Valiante, 2002). Self-efficacy beliefs influence students' motivation to engage and sustain self-regulatory efforts and predict academic performance. As students' self-efficacy increases, they become more confident in setting academic goals and more accurate in self-evaluation and self-monitoring (Schunk & Zimmerman, 2003).

The second important dimension of SRL pertains to metacognition which consists of planning, monitoring, and evaluating the learning process through the use of different study strategies (Boekaerts, et al., 2000; Butler & Winne, 1995). Research shows that learning strategies are associated with academic achievement (McKeachie, Pintrich, & Lin, 1985). Higher achieving students use more learning strategies than do lower achieving students (Zimmerman & Martinez-Pons, 1988). It is important to help students master specific study strategies and know when and how to use different strategies to deal with challenges of learning (Everson, Weinstein, & Laitusis, 2000). Helping students develop self-regulatory abilities has been a focus of recent research on learning. This research shows that students' approaches to learning are an important predictor of academic achievement.

Despite the abundant research evidence in favor of effective strategy use and the avid advices of teachers against the procrastination and cramming, the majority of students still engage in procrastination and cramming with school work (Sommer, 1990; Wolters, 2003). The present study took a multivariate approach to examine the relationships of procrastination vs. cramming with achievement goals, motivation, study strategy, and test performance in college students. Obtaining a better understanding of the relationships of these variables will advance our understanding of the learning process and pave the ways to develop interventions to promote SRL in students. Specifically, this study addressed two questions: (1) Are there differences in achievement goal orientation, motivation, study strategy, and test performance among students with different study approaches? (2) How do study approaches correlate with achievement goal orientation, motivation, study strategy, and test performance?

METHOD

One hundred ninety-four undergraduate students enrolled in four sections of a survey course of educational psychology voluntarily participated in the study. Their age ranged from 19 to 62 ($M = 25$, $SD = 8.53$); there were 168 female (87%) and 25 male (13%). They were 79% of White, 17% of Black, and 4% of Hispanic, Asia-American, and other ethnic backgrounds. The majority of them majored in early childhood (64%), middle grades (9%), secondary (3%), and special education (3%).

Participants were invited to respond to a survey packet during the last class of the semester. The packet included the following measurement instrument. An *Educational Psychology Self-Efficacy* inventory consisted of eight items answered on a 5-point Likert scale (Cronbach alpha = .89).

Based on Vacha and McBride's (1993) framework, *Study Approach* survey questionnaire was used to group the participants. The procrastinator group was the students who put off studying due to confidence, but do not engage in intensive study before an exam or assignment is due. The crammer group included those who do not put off studying but do engage in intensive effort shortly before the deadline. The procrastinator-crammer group included those who put off studying and also engage in intensive study shortly before the deadline. The control group was the ideal students who neither procrastinate nor cram before the deadline.

Achievement Goal Orientations Questionnaire consisted of 16 items (Cronbach alpha = .77). For each item, the participants read a short statement and then circle a number from 1 to 7 to indicate how strongly they agreed (7) or disagreed (1) with the statement. The questionnaire included 12 items (Elliot & McGregor, 2001) that measure mastery and performance approach vs. mastery and performance avoidance goal orientations, plus four items measuring work avoidance goal orientation (Walters, 2003).

The Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1993) assesses college students' motivation and learning strategies on a 7-point Likert-scale. The motivation section includes 31 items that assess student goals and value beliefs for a course, beliefs about skill to succeed in the course, and anxiety about tests in a course (Cronbach alpha = .87). The learning strategies section has 31 items regarding students' use of different cognitive and metacognitive strategies and 19 items concerning student management of different resources (Cronbach alpha = .90).

RESULTS

Multivariate Analysis of Variance (MANOVA) procedures were used to examine differences in achievement goal orientation, motivation, learning strategy, and test performance among the students. First, the study approaches (procrastinator, crammer, procrastinator-crammer, and ideal) were used as the independent variable. Measures of students' achievement goal (subscales used), MSLQ motivation, MSLQ learning strategy, and test performance were the dependent variables. The MANOVA results showed a significant difference among the four study approaches in achievement goals, MSLQ motivation, MSLQ Learning Strategy, and test performance (Wilks's $\lambda = .635$; multivariate $F_{(27, 532)} = 3.316, p < .001; \eta^2 = .140$). A significant difference was found in mastery approach goal orientation ($F_{(3, 190)} = 3.048, p = .030; \eta^2 = .046$), performance avoidance goal orientation ($F_{(3, 190)} = 3.502, p = .017; \eta^2 = .052$), work avoidance goal orientation ($F_{(3, 190)} = 7.813, p < .001; \eta^2 = .110$), MSLQ motivation scale ($F_{(3, 190)} = 3.525, p = .016; \eta^2 = .053$), and MSLQ strategy scale ($F_{(3, 190)} = 8.502, p < .001; \eta^2 = .118$).

The Tukey HSD was used to determine pair wise differences within each dependent variable among study approaches. A significant difference was found in the mastery approach orientation between the ideal students ($M = 5.63$) and the procrastination-crammer group ($M = 4.74, p = .035$). In addition, significant differences were found in the performance avoidance orientation between the ideal students ($M = 4.28$) with the crammer group ($M = 5.34, p = .026$) and the procrastination-crammer group ($M = 5.43, p = .015$). Similarly, significant differences were found in the work avoidance orientation between the ideal students ($M = 2.88$) and the crammer group ($M = 3.66, p = .043$), as well as the procrastination-crammer group ($M = 4.26, p < .001$), and between the crammer group and the procrastination-crammer group ($p = .022$). The Tukey analyses also yielded significant differences in the MSLQ motivation between the crammer group ($M = 5.13$) and the procrastination-crammer group ($M = 4.80, p = .020$) and in the MSLQ learning strategy between the ideal students ($M = 4.69$) and the procrastinator group ($M = 3.96, p = .014$) as well as the procrastination-crammer group ($M = 4.19, p = .009$). No significant difference was found in test performance among the four different student groups.

Then, MANOVA was used to examine differences in the subscales of MSLQ motivation and MSLQ learning strategy among the study approaches. A significant difference was found among the four student groups in the MSLQ motivation subscales (Wilks's $\lambda = .807$; multivariate $F_{(18, 533)} = 2.297, p = .002; \eta^2 = .069$) and in the MSLQ learning strategy subscales (Wilks's $\lambda = .641$; multivariate $F_{(27, 532)} = 3.239, p < .001; \eta^2 = .138$). More specifically, there was a significant difference in intrinsic goal ($F_{(3, 190)} = 3.048, p = .030; \eta^2 = .046$), performance avoidance goal orientation ($F_{(3, 190)} = 3.502, p = .017; \eta^2 = .052$), work avoidance goal orientation ($F_{(3, 190)} = 7.813, p < .001; \eta^2 = .110$), MSLQ motivation scale ($F_{(3, 190)} = 5.431, p < .001; \eta^2 = .078$), self-efficacy for learning and performance ($F_{(3, 190)} = 3.358, p = .020; \eta^2 = .050$), and test anxiety ($F_{(3, 190)} = 6.298, p = .001; \eta^2 = .090$). Similarly, the MANOVA analyses revealed a significant difference among the four student groups in the MSLQ learning strategy subscales (Wilks's $\lambda = .641$; multivariate $F_{(27, 532)} = 3.239, p < .001; \eta^2 = .138$). There were significant differences in all the nine learning strategies except critical thinking, effort regulation, and peer learning.

In the MSLQ motivation dimension, the Tukey analyses show a significant difference in the intrinsic goal between the ideal students ($M = 5.19$) and the procrastination-crammer group ($M = 4.26, p = .002$) and between the crammer group ($M = 4.77$) and the procrastination-crammer group ($p = .024$). In addition, a significant difference was found in the self-efficacy for learning and performance between the ideal students ($M = 5.47$) with the procrastination-crammer group ($M = 4.74, p = .025$). Similarly, significant differences were found in test anxiety between the ideal students ($M = 2.32$) and the crammer group ($M = 2.95, p = .005$) as well as the procrastinator-crammer group ($M = 2.81, p = .049$), and between the crammer group and the procrastinator-crammer group ($p = .022$). Also, the procrastinator group ($M = 2.14$) had significant less test anxiety than both the crammer group ($p = .009$) and the procrastinator-crammer group ($p = .045$).

In the MSLQ learning strategy dimension, the Tukey revealed significant differences between the ideal group and the procrastinator group in the rehearsal strategy ($p < .001$), elaboration ($p = .024$), and organization ($p < .001$), and between the ideal group and the procrastination-crammer group in elaboration ($p < .001$) and organization ($p < .001$). The procrastinator group was significantly different from the crammer group in the rehearsal strategy ($p < .001$), elaboration ($p = .014$), organization ($p < .001$), and metacognitive self-regulation ($p = .035$), and from the procrastinator-crammer group in the rehearsal strategy ($p = .006$). Furthermore, the crammer group was significantly

different from the procrastinator-crammer group in the rehearsal strategy ($p < .001$), elaboration ($p < .001$), organization ($p = .008$), and metacognitive self-regulation ($p < .001$).

Pearson correlation was used to examine the relationships of study approaches with GPA, test score, educational psychology self-efficacy, and MSLQ motivation variables. Study approaches were correlated negatively with students' test performance ($r = -.17$), educational psychology self-efficacy ($r = -.15$), intrinsic goal ($r = -.25$), and self-efficacy for learning and performance ($r = -.21$), but positively with test anxiety ($r = .21$). However, test score was found correlated positively with educational psychology self-efficacy ($r = .49$), MSLQ motivation overall ($r = .34$), intrinsic goal ($r = .30$), task value ($r = .27$), control of learning beliefs ($r = .45$), self-efficacy for learning and performance ($r = .59$), but negatively with extrinsic goal ($r = -.17$) and test anxiety ($r = .32$). Finally, Pearson correlation was conducted to examine the relationships of study approaches with MSLQ learning strategy variables. Significant negative correlations were found between study approaches and the MSLQ strategy total score ($r = -.19$), the learning strategy of elaboration ($r = -.24$), and organization ($r = -.20$), metacognitive self-regulation ($r = -.15$), and help-seeking ($r = -.16$). However, test score was found positively correlated with the strategy of elaboration ($r = .22$) and critical thinking ($r = .15$), but negatively correlated with peer learning ($r = -.22$).

DISCUSSION

The primary purpose of the study is to better understand the influence of procrastination vs. cramming on student motivation, study strategies, and test performance. This understanding helps clarify the debate about the effects of procrastination and cramming on student learning and paves the ways to develop interventions to promote students' motivation and self-regulatory abilities for learning.

The MANOVA results show that study approaches had a significant omnibus effect on achievement goal orientation, motivation, learning strategy and test performance. Specifically, the ideal students were oriented significantly more towards mastery of the material and learning, use more learning strategies, but less oriented toward performance and work avoidance than the procrastinator-crammers who delay the work and cram the last minute. These findings are consistent with the achievement goal literature in that students' attitude and ways to engage in studying can be accounted by achievement goals (Ames & Archer, 1988; Elliot & McGregor, 2001; Ryan & Deci, 2001). The significant differences found in all the pair-wise comparisons on MSLQ strategy, except between the ideal and the crammer group, support the contention that students with different study approaches use learning strategies differently.

Another purpose of the study is to identify differences between procrastination and cramming. Compared to the procrastinators, the crammers had a significantly higher level of test anxiety, but they used more of the strategy of rehearsal, elaboration, organization, and metacognitive self-regulation. Furthermore, the significant differences found between the crammer and the procrastinator-crammer groups suggest that the students who both delay work and cram in studying used less of the strategy of rehearsal, elaboration, organization, and metacognitive self-regulation. These findings suggest that the use of learning strategies increases when students engage in intensive study shortly before the deadline. However, when the students procrastinate and cram, facing a heightened pressure of the deadline, they use less learning strategies. These findings help delineate characteristics of students with different study approaches and provide evidence in support the distinction of procrastination and cramming as different concepts.

The correlations between the study approaches and the MSLQ motivation variables suggest that when students delay work, engage in intensive study shortly before the deadline, or both delay work and cram, their intrinsic motivation, self-efficacy for the subject and the general learning process, and test performance tend to decrease, but their test anxiety increase. These findings are consistent with the existing literature in that motivation factor, particularly different facets of self-efficacy, needs to be addressed in helping students regulate the learning process and improve test performance. Furthermore, the negative correlations between the study approaches and the MSLQ learning strategy variables suggest that when students procrastinate, cram, or both procrastinate and cram at the same time, their use of these effective higher-order strategies tend to decrease. These findings support the observation that students vary learning strategies under different circumstances (Everson, Weinstein, & Laitusis, 2000; Winne, 1995). However, they also show when students face more pressure of the deadline when they delay school work and cram, they tend to use less higher-order strategies such as elaboration and organization. They are less likely to monitor and regulate their learning process, and ask for help from others, suggesting the maladaptive effects of procrastination and cramming in the learning process.

The present study is limited in the several aspects. First, the participants were recruited from one undergraduate education program and in one subject area. Future research needs to examine the influence of study approaches on student motivation, strategy use, and academic performance across the subject areas and education

levels. Secondly, this study focused on examining the relationships between study approaches with motivation, learning strategy, and test performance for the purpose to understand the relationships between these variables from the self-regulation learning perspective. This study presents limited evidence in regard to the differences between procrastination from cramming. Measurement studies involving large samples are needed to further delineate procrastination and cramming at the conceptual level. Finally, this study used the class tests as the measure of students' test performance. No significant difference was found among students with different study approaches. This result shows that students' test performance was less prone to the influence of the way students engage in studying than their motivation and use of learning strategies. Does this suggest that procrastination and cramming are actually a time-tested "effective way" to beat the system? Or complex relationships exist between motivation, learning strategy, and test performance. Clarifying the complexity of the relationships between these variables will contribute to a better understanding of student learning and pave the ways for interventions to promote self-regulated learning.

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THE ATTITUDE OF TEACHERS ON INCLUSION

Gregory Cipkin

Babylon High School

Frank T. Rizza

The College of New Rochelle

ABSTRACT

The focus of this paper will be on the attitudes that educators have on the idea of inclusion. This paper will discuss studies and surveys that are representative of educators who have worked in or have been in an inclusion setting. It will also illustrate the attitude of new teachers that are starting in the teaching profession. With inclusion being the big push within the past ten years, the attitudes of teachers have been varied throughout school districts and levels of teachers. It appears the senior educators are not too keen on the idea, where as the new teachers, just beginning their careers only know what they have learned through their schooling. It should be noted that the underlying problem of inclusion is that there is no formal or state mandated way to carry it out. Many districts learn as they go, and create a plan of action. It is these authors' beliefs and experiences, that the attitude of educators will be negative towards the inclusion model of a class, due to the poor application of the plan.

INTRODUCTION

Children now more than ever are being mainstreamed and placed into inclusion classrooms. As more children with disabilities are being mainstreamed into general education settings, there is a need for teachers to be more educated in the field of special education. By law, children are required to be in the least restrictive environment to reach their academic potential. Inclusion means that all students are included into a classroom, general education students and children with special needs. There are advocates on both sides of the issue. Kauffman of the University of Virginia views inclusion as a policy driven by an unrealistic expectation that money will be saved. Furthermore, he argues that trying to force all students into the inclusion mold is just as coercive and discriminatory as trying to force all students into the mold of a special education class or a residential institution (as cited in Ford, 2001). At the other end of the spectrum are those who believe that all students belong in the regular education classroom, and that "good" teachers are those who can meet the needs of all the students, regardless of what those needs may be. Between the two extremes are large groups of educators and parents who are confused by the concept itself. They question whether inclusion is legally required and wonder what is best for children. They also question what it is that schools and school personnel must do to meet the needs of children with disabilities. When teachers have little knowledge of inclusion, it could end with a detrimental effect on young children with disabilities. "Attitudes are essential in the success of educating students with disabilities in regular education classrooms, pre-service programs should emphasize and concentrate on enhancing teachers attitudes towards inclusion" (Kauffmann & Hallahan, 1981, p. 3). Teachers are often not including adaptations into the classroom that would better students with special needs. Instead they are teaching with antiquated strategies (Kara & Yoga, 2001).

Mainstreaming has been used to refer to the selective placement of special education students in one or more "regular" education classes. Proponents of mainstreaming generally assume that a student must "earn" his or her opportunity to be placed in regular classes by demonstrating an ability to "keep up" with the work assigned by the regular classroom teacher. This concept is closely linked to traditional forms of special education service delivery (Emad, Hamzah & Ibrahim, 2003). When inclusion and mainstreaming are in the classroom, special educators and general educators need to collaborate in order to devise a plan that will work with the child or children who has special needs. "As inclusion requires the collaboration between general and special education, researchers must analyze the phenomenon of classroom teachers' and building administrators' perceptions about including students with disabilities in general education settings" (Bernie-Smith & Latham, 2000, p. 424). For the purpose of this study the term inclusion needs to be defined. Inclusion is a term which expresses commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend if this student did not have special needs. It involves bringing the support services to the child, rather than moving the child to the services and requires only that the child will benefit from being in the class, rather than having to keep up with the other students. Proponents of inclusion generally favor newer forms of education service delivery. Full inclusion means that all students, regardless of handicapping condition or severity, will be in a regular classroom/program full time.

All services must be taken to the child in that setting. In addition to problems related to definition, it also should be understood that there often is a philosophical or conceptual distinction made between mainstreaming and inclusion. Those who support the idea of mainstreaming believe that a child with disabilities first belongs in the special education environment and that the child must earn his/her way into the regular education environment (Shade & Stewart, 2001). In contrast, those who support inclusion believe that the child always should begin in the regular environment and be removed only when appropriate services cannot be provided in the regular classroom. Many believe that inclusion is a good environment for a student because it will assist in his/her social skill development (Emad et al., 2003). The legal aspect of inclusion is as follows: two federal laws govern education of children with disabilities. Neither requires inclusion, but both require that a significant effort be made to find an inclusive placement. IDEA, The Individuals with Disabilities Education Act, as amended in 1997, does not require inclusion. In fact, the term "inclusion" does not appear in the text of the statute or the implementing regulations. Instead, the law requires that children with disabilities be educated "to the maximum extent appropriate" in the "least restrictive environment" (Emrad, et al., 2003, p. 520). The IDEA contemplates that the "least restrictive environment" is the regular education classroom. In developing the Individual Education Program (IEP) for a child with disabilities, the IDEA requires the IEP team to consider placement in the regular education classroom as the starting point in determining the appropriate placement for the child. If the regular education classroom is deemed to be inappropriate, the IEP team must include an explanation in the IEP as to why the regular education classroom is not appropriate. The purpose of these requirements is to carry out the intent of the IDEA, which is to educate as many students with disabilities as possible in the regular education classroom. Robert T. Stafford, the Republican Senator from Vermont and one of the bill's primary sponsors, has argued that the legislation is essential if we are to allow children with special needs to live ordinary lives (as cited in Arnold & Dodge, 1994). Section 504 requires that a recipient of Federal funds provide for the education of each qualified handicapped person in its jurisdiction with persons who are not handicapped to the maximum extent appropriate to the needs of the handicapped person. A recipient of Federal funds is required to place a handicapped child in the regular educational environment unless it is demonstrated by the recipient that the education in the regular environment with the use of supplementary aides and services cannot be achieved satisfactorily. The purpose of this study is to investigate inclusion and how it is viewed in the education community. Although many hold the belief that inclusion is beneficial in many ways for a student, this study will focus on the academic outcome of students who are placed in inclusion settings. This study will also look at the theories and other studies that have already been done. The purpose of this study is to investigate inclusion and the attitudes that teachers hold towards children with special needs. This study will be focused on the perceptions and attitudes of general and special education teachers.

RESEARCH QUESTIONS

These were the questions these researchers wanted to investigate:

Is inclusion the best academic setting for children with disabilities? Are general education teachers educating children with special needs without proper training? Do teachers hold a positive or negative attitude towards inclusion? Do teachers believe that all students will benefit from inclusion?

Hypothesis:

Based upon the research questions, the following hypotheses were formulated:

- H1: General education teachers and special education teachers will not support inclusion as the best setting for children with disabilities.
- H2: General education teachers are teaching children with disabilities without proper training.
- H3: The majority of the teachers will hold a negative attitude towards inclusion.
- H4: Teachers will not support that all students will benefit from inclusion.

The purpose of this study is to investigate teachers' attitudes and perceptions towards inclusion. The questions set forth by these researchers are:

1. Is inclusion the best academic setting for children with disabilities?
2. Are general education teachers are being trained appropriately?
3. Do teachers hold a positive or negative attitude towards inclusion?
4. Does the general education setting help benefit children with special needs?

Before conducting this study, research was needed in order to understand what previous studies have shown. Past research has shown that many teachers hold negative attitudes towards inclusion and do not believe that students benefit positively from inclusion (Hammond et al., 2003).

LITERATURE REVIEW

The purpose of this study was to investigate teachers' attitudes and perceptions toward inclusion. The questions that were to be answered and the hypothesis posed above are reflected in much of the literature about inclusion as an effective method of educating, both those with special needs and those without special needs. The articles used in preparation of this paper will be broken into two categories; attitudes and perceptions. The literature review is used to compare the articles to understand the thesis.

Attitudes

Attitudes of pre-service teachers toward persons with disabilities: predictions for the success of inclusion.

The purpose of a study by Emad et al., (2003) was to explore pre-service teachers' attitudes towards individuals with disabilities as a predictor for success in including disabled students in the regular classroom. Before any actual implementation of strategies for those with special needs are used in the classroom, it is important to determine the attitudes of educators and administrative workers. This study used the Attitudes Towards Disabled Persons (ATDP) scale in order to assess the attitudes of educators towards those persons with disabilities. Studies have shown that the most important predictors in having a successful inclusion class are to determine what the attitudes of the educators are (Emad et al., 2003). Positive attitudes of inclusion encourage children to strive, whereas negative attitudes limit children to meet their potential ability. "Teachers have been found to express positive attitudes towards inclusion and mainstreaming of general education settings" (Emad et al., 2003 p. 414). Attitudes of educators in an inclusion classroom are the most important aspect in creating an inclusive class. Since it is essential that educators have positive attitudes towards inclusion, pre-service programs should emphasize and enhance teachers' thoughts and perceptions toward inclusion. Attitudes and the ability to teach children with special needs is a learned process and it is an on-going process. In Emad et al.'s study, there were 597 participants in the pre-service education program and the students were from three different Universities in Jordan and one from the United Arab Emirates University. All students had a Bachelor's degree. There were two survey questionnaires to measure the attitudes towards persons with disabilities. The demographic instrument used was a researcher designed questionnaire. The researchers studied the subject's gender, number of times of contacts with persons with disabilities, educational backgrounds and culture. There were five different categories: no contact, one time per year, one time per month, one time per week, and one time per day. It was assumed that culture plays a role in the positive or negative effects of inclusion. The second instrument used was the Attitudes Toward Disabled Persons (ATDP) scale. This instrument consists of 20 items that can be measured on the 6-point Likert scale. Translators were necessary to make this study work because some of the participants did not speak English fluently.

The results for the pre-service teachers' attitudes towards persons with disabilities showed that 62.0% had a negative attitude towards inclusion. This study had 227 females and 370 males. The independent t-test procedure supported this result and the t-test value was not significant. Females had a 62.2% negative attitude on inclusion, while males had 61.1% negative attitude on inclusion. Cultures were compared by those from Jordan and UAE. There were 399 from Jordan and 198 from UAE. Jordanian participants had a 63.9% negative attitude towards inclusion while UAE participants were 58.0%. This study assumed that the more an educator knows about inclusion and children with disabilities the more positive their attitudes are towards mainstreaming and inclusion. Gender may also play a role in the attitudes of inclusion. Males were shown to have more negative attitudes toward inclusion than females.

The purpose of this study was to explore the attitudes of pre-service Arab educators towards persons with disabilities. The results indicated that pre-service teachers in general have more negative attitudes towards persons with disabilities. The assumption that those who have more knowledge in inclusion would have more positive attitudes did not prove to be the outcome in this study. It showed that the amount of contact did not matter when assessing the attitudes. There was no difference when based on gender either. Both males and females held a negative attitude on inclusion. The educational background of teachers did have an effect on attitudes towards persons with disabilities. Students from Jordan held more positive attitudes of inclusion than those from UAE (Emad et al., 2003). This might be because Jordan started services in the 1930s where UAE did not start until 1979.

Programs teaching educators should implement strategies and should enhance positive attitudes towards inclusion. Future teachers need to accept students with disabilities and provide them with adequate skills to be

effective in the classroom. Schools in Jordan and UAE now provide more training for pre-service teachers in order to enhance positive attitudes towards inclusion. The next article will discuss student teachers' attitudes toward inclusion.

Student teachers' attitudes towards the inclusion of children with special needs

Throughout the world, mainstreaming children into general education classrooms is becoming more popular. Hastings and Oakford (2003) researched student teachers' attitudes towards the inclusion of children with special needs. This research focused on factors such as those that facilitate or impede efforts to include special needs children into general classrooms. Over the decades, researchers have concluded that teacher's attitudes towards inclusion were the most essential key to making inclusion classrooms work (Hastings & Oakford, 2003). There are multiple factors that can affect teachers' attitudes towards inclusion. Such factors include child, teacher, and school variables. The child variable needs to be clear as to the child's disability and its impact on functioning. The main purpose of this study was to explore two issues that the researchers felt were not addressed adequately in previous research. Teachers view those with severe special needs as more needy, which results in teachers feeling less negative. Hastings and Oakford explored the subgroups of children with emotional and behavioral disorders. Next they explored the mixed results relating to the effects of the school environment by age group. Teacher variables that could affect their attitudes were addressed in this research two ways. In order to control any potential effects of the amount of teaching experience they sampled student teachers. This sample was used because the authors did not want those who had experience and had been taught their specific school inclusion philosophies to be sampled. They wanted those who had their own ideas and were not teaching. It is important to see the attitudes they acquire during student teaching about inclusion. Secondly, the student teachers' previous experience of special needs was measured.

The participants in this study were 93 university students studying for professional teaching qualifications. Sixty of the participants were being trained to work with children of special needs from 4-11 years of age, and 33 participants were being trained to work with children and adolescents from 11-19 in age. In the sample, 79 of the participants were female and 14 were male. Their mean age was 26.47. Thirty-one of the participants had previous experience working with special needs children and 26 participants had social contact with those of special needs.

The data were located using a self-report questionnaire containing two different sections. The first section required participants to give their demographic information and their experience of working with those who had special needs. The second section contained a rating scale designed for the study: the Impact of Inclusion Questionnaire (IIQ). The IIQ had sections that separated the different disabilities. There were 24 items developed in total with 6 items in each domain: the child with special needs, adults and other children in the classroom, the teacher and the school environment. They ranged from "very strongly agree" to "very strongly disagree." The IIQ summed scores for each of the domains described above. Scores that were negatively phrased items are reversed so that higher totals on each of the four IIQ domain scores indicated more positive attitudes. Scores on the IIQ ranged from 6 to 42 and total IIQ scores ranged from 23 to 161. All the domains were found to have a good level of consistency. Children with less severe disabilities, who are less demanding, were generally viewed as more positive. Children with behavioral disorders are viewed as the least positive in the child factor. Teacher variables that influenced their attitudes toward inclusion include the amount of contact and training that they had received. Those who had more teaching experience frowned upon inclusion settings. The last variable, which is school factors, include the age group of the children and the classroom environment. Children in primary grades were viewed to have more positive experiences than those in intermediate grades.

Student teachers were invited to be a participant in this study by their tutors. There were 150 questionnaires given to tutors training students to work with younger or older students. The tutors approached the student teachers in lectures and then on an individual basis. In order to gain some information about how valid the IIQ data was, they used one sample: Kolmogorov-Smirnov tests were used to compare the IIQ scores to a normal distribution. Relationships between demographic variables and IIQ scores were explored. Gender and experience is typically related to experience with children with special needs and previous social experience of children with special needs. There were no significant effects on the IIQ. The results show that participants rating children with intellectual disabilities reported more positive attitudes than ratings children with emotional/behavioral problems. The IIQ showed that 89% of teachers' attitudes toward special needs children were based on the children and their disability. Only 5% was based on the teacher and 6% was based on the classroom environment. Those training to work with

older children reported more positive attitudes. There were no other main effects found to be significant at the 0.05 level. Teachers working with younger children who had emotional and behavioral disorders had the least positive attitudes.

The results of the study revealed that the major factors on student teachers' attitudes towards those with special needs were based on the child and their disability. Children who had emotional disturbances and behavioral problems were less likely to have student teachers who expressed positive feelings. Those working with older children had more positive feelings towards those with special needs. The IIQ found good reliability and the differing pattern of results across domains of potential impact reinforced the value of a measure that can be scored to take into account attitude dimensions rather than simply a total attitude score. Focusing on the issue of teacher attitudes, previous research has suggested that teacher training courses have little impact upon student teachers' attitudes towards children with special needs (Hastings & Oakford, 2003).

The next article looks at whether the attitudes of teachers are changing about mainstreaming in rural areas.

Are attitudes and practices regarding mainstreaming changing? A case of teachers in two rural school districts

Yoga and Kara (2001) explored the practices regarding mainstreaming and if they are changing. This research explored the attitudes and practices regarding mainstreaming of 91 regular and special educators in two small rural school districts. The participants were given two questionnaires and were asked to respond to them. There were several demographic variables that were found to relate to the teacher and if they included adaptations into their classrooms. These variables are special education versus regular education, grade level, gender, and training in mainstreaming. Implications for teacher training and practice are discussed. Public Law 94-142, the Education for All Handicapped Children Act (U.S. Congress, 1975), and its subsequent amendments, PL 105-17 (U.S. Congress, 1997), the Individuals with Disabilities Education Act, ensures that all children with disabilities have access to free, appropriate public education in the least restrictive environment. How successful mainstreaming and inclusion is depends on several variables, which includes the attitudes held by teachers and the quality of instruction they offer to their students. Female teachers were more supportive of mainstreaming than male teachers.

The participants were 91 regular and special education teachers from two small school districts in a rural county in a Midwestern state with 15,000 people in the county. One district was composed of 5 elementary schools and 1 junior high with an enrollment of 1,263 students and the second district was composed of one high school with an enrollment of 1,027 students. The majority of the teachers were Caucasian; 91% in the first district and 96% in the second district. There were 27 males and 63 females. Of the teachers, 36 were elementary teachers, 12 were junior high teachers and 43 were high school teachers. Sixty-eight of the teachers were general educators and 17 were special educators. Twenty-eight of the teachers had up to 5 years experience, 12 between 6-13 years experience, and 50 had over 13 years of experience. Twenty-seven of the teachers did not indicate whether or not they had training in mainstreaming, 34 had no training, 23 had 1-2 courses and 7 had 3 courses or more (Leyser & Tappendorf, 2001, p. 753).

One instrument used was the Options Relative to Mainstreaming scale (ORM). This scale was composed of 12 items selected and revised from the ORM scale by Antonak and Larrivee (1995). An analysis yielded three main factors. The first factor addressed the impact of mainstreaming on students with a disability and on their peers. The second factor addressed the social aspects of mainstreaming and was named "The Social Growth." The last factor was composed of one item and was dropped from the statistical analysis. The next instrument used was the Instructional Strategies Scale (ISS). This scale was composed of 14 items assessing teacher curricular and instructional strategies and adaptations for students with diverse needs. Teachers were asked to rate each item on a six point scale ranging from 1 "never" to 6 "always." The Chronbach alpha reliability of this 14 item scale was .85. The ISS had four main factors. Factor one contained items that focused on the teacher behavior. Factor two addressed classroom adaptations and was labeled "The Instructional Adaptation" factor. Factor three focused on student active participation in learning and was named "The Student Involvement." Factor four was composed only of one item and was not used in the analyses. The researchers handed out 140 surveys and 91 forms, or 65%, were returned.

The results on the ORM showed a mean score of 41.82. This score represents a score above the midpoint of the scale that had a range from 12 to 72. Females attained a significantly higher score than male teachers, females 13%, males 11%, on the "Social Growth" scale. There were no variables from the teacher certification grade and training in mainstreaming that related to attitudes. Regarding the relationships between teacher background, variables and choices of instruction strategies show significant relationships that were found between factor two and the instructional factor. High school teachers had lower scores on factor two and on the total scores. Females had significantly higher scores on the ISS than males on factor two and total score. No significant attitudes were found between junior high and high school teachers. Teachers with much more training had higher scores on the factor two than those who did not. There was no significant difference in gender and attitudes. Teachers report more often not

that they use adaptations to better the students who have special needs. Special education teachers compared to general education teachers felt that they were better able to accommodate those with special needs. Elementary teachers also were more likely to implement instructional strategies that would better the students with special needs.

Findings suggest that these teachers do not hold unfavorable attitudes towards mainstreaming as reported by several investigators (Leyser & Tappendorf, 2001). The studied teachers did not express a liking for inclusion. Teachers rely more on procedures which are typically geared toward large groups of students. Teachers did not frequently use individual adaptations to help those with special needs. The demographic variables showed that gender showed significant differences in mainstreaming attitudes. Females were more likely to accept it and have positive attitudes than males. Special education teachers reported using more diversity and adaptations when teaching those with special needs than general education teachers. Teachers in high school reported using less differentiated strategies than elementary student teachers in bettering the needs of special children. Teachers with more training used more strategies in the classroom than those who did not have training. Female teachers reported using more strategies in the classroom than males.

Research on teachers and their attitudes towards inclusion is needed with larger samples representing other urban, suburban and rural communities. The next article will continue to discuss how teachers' attitudes are important in an inclusion classroom.

General education and special education pre-service teachers' attitudes towards inclusion

Shade and Stewart (2001), wanted to investigate general education and special education pre-service teachers' attitudes towards inclusion classrooms. The philosophy of inclusion for children with disabilities has been reinforced into classrooms over the last 30 years. Federal law does not mandate inclusion, but its practices are influenced by state commissioners of education. Inclusion was brought to forefront when the Regular Education Initiative (REI) was first introduced. REI first had only general education teachers teaching children with special needs. Special educators put a stop to that when it was realized general education teachers do not have enough training.

Teachers may feel challenged but it is important to continue to learn about children with special needs and have a positive attitude to keep children feeling successful. Preparing both pre-service and in service teachers for the task of helping children with special needs has become very challenging. Dedication is needed. Teachers' attitudes become very critical in building a successful inclusion classroom. General and special educators may differ in opinion but both need to collaborate to create a successful inclusion room. The most direct step is to have training courses for general education teachers. They should be taught how to work with children of special needs. Probably the simplest and most direct step that can be taken is to add to these prospective teachers' training programs a course or courses, in which they are taught about the different areas of exceptionality and about children's learning problems, how to identify them, how to teach the children despite their deficits and how to remediate their learning problems while teaching them academics through their strong learning modalities.

The participants in this study were general education teachers, elementary and secondary majors (N=122) enrolled in a course entitled Survey of Special Education and undergraduate special education majors (N=72). The course was a 15 week, 30 hour required course. All attended a teacher preparation institution. On the first day of each course, participants were administered a 48-item inclusion inventory. They reacted to statements designed to assess their overall attitudes towards the education of students with disabilities and inclusion. The inventory employed a 5-point Likert scale: 1-5 (strongly disagree to strongly agree). There were eight subscales made up the total survey: class placements (5 items), behavior (7 items), self-concept (7 items), and parents (2 items). High total scores represented more positive attitudes towards inclusion. One sample question is "A student with disabilities will be disruptive in your classroom." The teacher had to write how they felt.

The data was analyzed by a dependent measures t tests with $\alpha < .05$. The t-tests were used to measure whether mean gain scores by group were statistically significant from zero to total test scores and subtest scores. Overall, the majority of the teachers had positive attitudes towards inclusion. The results of this study support the assertion that one individual course can significantly change pre-service teachers' attitudes towards inclusion. Results also indicated a course of this nature is beneficial to both general educators and special educators.

Pre-service teachers need to be prepared to teach special needs children before entering the classroom. It is essential for teachers to have training. Teacher training will help teachers enhance positive attitudes so that children feel more successful and positive in the classrooms. A study completed 10 years after the passage of the Education for All Handicapped Children Act of 1975 revealed that 33 state education agencies had no specific certification

requirements or required only one course on exceptionalities. Many teachers do not believe that they are capable of being trained and prepared enough to teach special children.

The next article will look at the perceptions that teachers have toward inclusion.

Perceptions

Administrators' and teachers' perceptions of the collaborative efforts of inclusion in the elementary grades

Danne, Beirne-Smith, Latham and Dianne (2000) wanted to investigate administrators' and teachers' perceptions of the collaborative efforts of inclusion in the elementary grades. Recent efforts have been made to try and reform education and help those children who have special needs. Educators have been moving away from segregation of students who are general education students and special needs children. This is called inclusion, where general and special children are integrated into one classroom setting. The movement of inclusion gave rise to questions about the roles of the teacher, principals and administrators in inclusion settings. Everyone wants to know what they are going to be responsible for in helping children with special needs. Inclusion requires collaboration between general and special education teachers. Researchers must analyze teachers' and building administrators' perceptions about inclusion. General education teachers do not always feel prepared to teach a special needs child. It is important to consider teachers' and building administrators' perceptions as these may have a great impact on the inclusion of students with disabilities. Many schools do not continue to offer pre-service classes to help teachers work with children with disabilities.

In many districts administrators have required teachers to implement inclusion into their classroom and collaborate with other teachers. The purpose of this study was to investigate perceptions toward inclusive education of administrators, and the elementary general education teachers and the elementary special education teachers who worked in their schools. This study was conducted in a school district of 8,000 students in the southeast United States. The setting was mostly rural but included some suburban areas. The survey was designed by the researchers after an extensive review of literature concerning the regular education initiative inclusion, and teacher collaboration. The survey was administered to 324 elementary general education teachers, 42 special education teachers, and 15 administrators. The survey used a Likert-type scale ranging from 1 to 5 (agree to strongly disagree), and consisted of 24 items. The items were grouped into 4 categories (1) teacher collaborative efforts, (2) instruction of students with disabilities, (3) teacher preparedness for meeting the needs of students with disabilities, and (4) perceived achievement outcomes of students with disabilities. There was also a semi-structured interview with 12 of the participants: 4 elementary general education teachers, 4 special education teachers and 4 administrators. They were all randomly selected.

The results show that collaboration appeared to be taking place between special and general education teachers. However, when asked if they were comfortable with collaboration, they all responded negatively. Reasons given were: conflict of personality differences, lack of planning and limited time in the classroom by special education teachers. They saw the need for the students to have more one-to-one help. The results show that inclusion was deemed the most helpful for students with disabilities. All the principals felt that the pull out programs were still essential to helping children. Teachers and administrators both agreed that special education resources were protected under IDEA. All students should be able to work in the least restrictive environment. Special education teachers did not believe that general education teachers should have primary responsibility over those children who have disabilities. The general educators and administrators believed differently. All three groups felt that students were not going to receive effective instruction in a general education classroom. All three groups felt that general education teachers were not prepared enough to teach children with disabilities. Administrators expressed concern for children's academics. They are not reaching their maximum potential. Contrasting teachers, administrators believed that students grew socially when inclusive models of education were employed in their schools.

In this study teachers and administrators realized that there appeared to be social benefits of including students with disabilities in general education classrooms but they had some serious concerns about the academic success of students who had disabilities. Administrators, general education teachers and special education teachers need to work together to make the most supportive learning environment that will promote success for all students. This means they need to collaborate, as much as they do not want to.

The above articles used in this study help to understand our research better as they give some insight on teachers' attitudes and perceptions. Chapter III will discuss the methods used in the current authors' research.

METHODS

The participants in this study were general educators and special educators from a suburban school district in the northeast region of the United States. The teachers and students are primarily from middle to upper-class socioeconomic status communities where a majority of the population comes from a Caucasian background. The

preferred language of the children and families is English. Permission was obtained from the school principal to conduct the study in the school. The principal and researchers discussed what the study was about and how it was going to be conducted. Each teacher in the building was given a survey to be filled out anonymously and to be placed in an envelope inside the main office mailroom for privacy.

In total, 29 teachers participated with approximately 50 teachers receiving surveys. A total of 29 (58%) surveys were completed and returned for analysis. There were 5 male teachers and 24 female teachers who responded. The average age range of teachers was 31 to 40. The grade levels ranged from K-5 in a public elementary school with general education and special education settings.

The instruments that were used were a questionnaire developed to obtain information on teachers' perspectives and attitudes towards inclusion and inclusionary plans in their schools. The questionnaire surveyed teachers' attitudes on inclusion and also asked them their basic demographic information, such as gender and teaching experience. The questionnaire was developed using a 5 point Likert-type scale (Borg & Gall, 1989).

Once the results come back from the teachers, the information was prepared for input in order to be tabulated and analyzed. In order to determine the results, they were added up and then turned into percentages. The researchers used this method of data analysis to determine if the results were meaningful or whether they were likely due to chance. The participants answered questions about inclusion which ranged from 1-5 (strongly disagree to strongly agree). This was done in order to have no ambiguity. The next section will explain the participants and their responses on the inclusion questionnaire. The next chapter will have the results tabulated and displayed in percentages and graphs for better understanding. The results will be broken down into how teachers feel and think about inclusion.

RESULTS

The questions that these researchers wanted to investigate were if inclusion would benefit all students, if teachers have special education training in order to teach an inclusion class, and the attitudes that teachers hold about inclusion. The results will be displayed in tables and charts to show the results.

Twenty-nine teachers volunteered and answered the survey on their feelings toward inclusion. Names were not given so each participant is identified by number. Percentages were tabulated as the method of data analysis to express the results. The first question that was investigated was if teachers thought that inclusion would benefit all children. This means children in general education classes and those in special classes would gain something out of being in an inclusion class. Sixty five percent (19 teachers) strongly disagreed that inclusion would not benefit all children. This is not to say that it would not benefit those children who are in special education, but teachers felt, as a whole, inclusion does not give benefits to everyone. Those who did agree that inclusion would be beneficial were a group of 17%. No teachers strongly agreed that inclusion benefits all children. The remaining 17% were uncertain if inclusion would benefit all students. All males (100%) felt that inclusion would not be beneficial to all children, whereas, females had a mix of agreeing, disagreeing, and uncertain. The researchers' hypothesis was that teachers would disagree with that notion that all children would benefit from inclusion. Therefore, the hypothesis was confirmed. Table 1 shows the respondents' answers.

Table 1: *Concerning the Benefits for All Students*

Benefits Gender	SD	D	NS	A	SA
Male	0	5	0	0	0
Female	0	0	5	0	5
Total	5	19	0	5	0

The next question the researchers wanted answered was if teachers thought that children with severe disabilities would benefit academically in an inclusion class. The disabilities ranged in severity, from mild disability up to being in a wheelchair with tubes attached to the student, who was unable to perform any type of movement. Sixty-two percent (18) of teachers strongly agreed that students who are severely disabled would not benefit academically from an inclusion class. Six teachers (20%) agreed that children with disabilities would not benefit from being in an inclusion class. Those teachers that were uncertain (6%) were not sure if children would benefit from inclusion or not. Three percent agreed that children with severe disabilities would benefit from inclusion. The last six percent

strongly agreed that it would be beneficial to those who are severely disabled to be included into an inclusion class. The researchers hypothesized that teachers would disagree with children with severe disabilities being placed in an inclusion class. The results showing the majority of teachers do not agree that children with severe disabilities would benefit from being in an inclusion class. Thus, the researchers' next hypothesis was confirmed. Table 2 shows the results.

Table 2: *Do children with severe disabilities benefit from inclusion*

Benefits					
Gender	SD	D	NS	A	SA
Male	0	0	0	1	4
Female	2	1	2	5	12
Total	2	1	2	6	18

The next question the researchers wanted to investigate was if teachers believe that they were trained enough to teach children with disabilities. This question asks if teachers feel college level training is sufficient for them to teach in an inclusion class. There are college courses and outside in-service and pre-service training courses to help teachers with special education; such Life Space Crisis Intervention training for those children who have behavioral and emotional problems. Life Space Crisis Intervention is a training program for new teachers who teach those with emotional disturbances. The program introduces teachers and counselors to the conflict cycle and red flag warnings. These courses can be used as college courses or new teacher credits. Most teachers agree that college level training is not sufficient to teach in an inclusion setting, especially those with children with severe disabilities and emotional and behavioral problems. Seventy-two percent of teachers disagree with the fact that college level courses prepared them sufficiently to teach in an inclusion setting. Teachers that disagreed (13%) with the fact that college level courses are not sufficient enough, have a slight agreement that college level courses can be sufficient. Three percent of teachers are uncertain if college level courses are sufficient enough for them to teach in an inclusion room. The last 10% of teachers feel that college level courses are sufficient enough to be placed into a classroom. The researchers hypothesized that teachers are teaching in inclusion settings without proper training and that college level courses are seen as insufficient in order to teach children with disabilities. Part of the third hypothesis was confirmed, most teachers do not think that they have enough training to teach those with disabilities.

The last question the researchers wanted to investigate was if teachers had a negative attitude toward inclusion. This was done by a series of question regarding inclusion and its possible benefits. The researcher asked if a teacher would accept an inclusion job if offered one. The majority of the teachers (55%) disagreed with the job opportunity of teaching an inclusion class which indicated that they would not accept the job. The ones that agreed and strongly agreed had a special education degree. The results in table 3 show the percentages. The researchers' last hypothesis was that teachers would have a negative attitude toward inclusion. The majority of teachers would not accept an inclusion teaching job which confirms the researchers' last hypothesis that teachers have more negative attitudes toward inclusion then positive.

Table 3: *Agreeability to teach in an inclusion classroom*

Agreeability					
Gender	SD	D	NS	A	SA
Elem.	16	3	2	2	0
El/Spec	0	0	1	1	
Total	16	3	0	5	5

The other questions gave back more negative feedback than positive about inclusion. Teachers in general and special education settings in this school district seem to have preferred to work in a general education setting rather than inclusion. The problem might be that 90% of teachers surveyed to not believe that they have a good network communication with different departments such as inclusion teachers talking to general education teachers or special education teachers talking to general education teachers. Teachers did not have a sense of strong communication between that special educators and general educators who are involved in the inclusive practices. There is not enough communication to discuss the pros and cons and how to better the teaching experience of inclusion classes.

Teachers disagree with the fact that all students should have the same academic standards. Those with learning disabilities will have a harder time keeping up with those who have average or higher potential.

The researchers wanted to investigate the attitudes and perspectives of teachers' attitudes of inclusion. The researchers thought that teachers would have a more negative attitude toward inclusion, which was confirmed. The next chapter will be comparing the results of the study to the results found in previous sections.

DISCUSSION AND CONCLUSIONS

The purpose of this investigation was to determine if teachers' had a positive or negative attitude toward inclusion. The questions that were investigated are: if teachers believed all children would benefit from inclusion; if children who are severely disabled would be academically placed in an inclusion setting; if teachers feel that they have had enough training to teach in an inclusion class; and if they would accept an inclusion class.

Various studies, as noted earlier also found that education background played a part in the attitudes toward inclusion. Those that had more training or certification were more acceptable to teach an inclusion class, as the current study concluded. The researchers' hypothesis was that teachers would have a negative attitude, which was confirmed by the study. Teachers' attitudes will continue to play a part in inclusion and the success implementing inclusion into schools. Teachers who see inclusion as negative will continue to discourage children who have disabilities because those teachers are not positive towards students with disabilities.

There are a number of reasons why inclusion is not always supported. There is inadequate training of general education teachers to work with students who have special needs, professional's inability to problem-solve and work in a collaborative fashion, and lack of support. There is also a negative impact on the teachers' time utilization when children with special needs are in their classrooms. Schools in high risk areas might also have teachers concerned with other things such as crime, violence, drugs and drop-out rates, for example. Even with all the help and services, implementing inclusion services remains to be a challenging task. Teachers' attitudes are the most important aspect in having a successful classroom with inclusion (Hammond et al., 2003). There is a need to gain more information on teachers' attitudes towards inclusion in order to implement the new types of practices into the classroom. All students should simply be included, by right, in the opportunities and responsibilities of public schooling.

In conclusion, the data from these surveys indicate clearly that educators need opportunities to collaborate on inclusive programs in their schools. Teachers need adequate training for working with those who have special needs and how to plan for the children. All educators need to be involved in planning and implementing adequate strategies to help children who are special needs children.

LIMITATIONS

There were some limitations to this study. The first limitation was the sample size. The sample size was a small group from a middle to upper class area which is not generalizable urban and rural areas. Another limitation that these researchers believe might have helped the study is to do further comparisons between general and special education teachers. Even though a few questions showed a segregation of special and general education, it was probably not enough to determine the true attitudes of both types of teachers. One can wonder if these researchers had questioned if the participants were from a more diverse area, would the results would have been different.

References are available upon request.

Appendix A1

Survey

Age
22-30 ____ 31-40 ____ 41-50 ____ 50+ ____

Gender
Male ____ Female ____

Highest degree obtained
BA ____ MA ____ MA+ ____ PHD ____

Do you have a special education certification?
Yes ____ No ____

How many years have you been teaching? (Please check one)
0-5 ____ 6-10 ____ 11-15 ____ 16-20 ____ 21+ ____

Have you taught in an inclusion class?
Yes ____ No ____

Would you ever teach an inclusion class?
Yes ____ No ____

ANSWER QUESTIONS BELOW BY PUTTING A CIRCLE AROUND ONE (1) CHOICE

On a scale of 1 to 5

1= Strongly Disagree 2=Disagree 3= Not Sure 4=Agree 5=Strongly Agree

1. Do you believe all teachers should be able to teach in any type of classroom setting?
1 2 3 4 5
2. Does your district have a clear definition and guidelines for the implementation of inclusion?
1 2 3 4 5
3. If given the opportunity to have an inclusion class would you accept it?
1 2 3 4 5
4. Do you believe that there is a certain teaching style that would be most effective in an inclusion classroom?
1 2 3 4 5
5. Academically, do you believe that severely disabled students can succeed in an inclusion classroom?
1 2 3 4 5
6. Do you believe the academic expectations should be the same for all students?
1 2 3 4 5
7. Do you believe a school should be able to place a student, solely upon the recommendation of the students' teachers?
1 2 3 4 5
8. Do you believe that college level training for Special Education is sufficient enough for a classroom teacher?
1 2 3 4 5
9. Do you believe your school has a collaborative inclusion network between all teachers?
1 2 3 4 5
10. Do you believe that inclusion will be beneficial for all students?
1 2 3 4 5



BUSINESS TRACK

ALTERATIONS OF RECRUITING PRACTICES IN THE FACE OF CHANGING PHYSICIAN VALUES AND THE FEDERAL SELF-REFERRAL AND ANTI-KICKBACK LAWS

Jeremy Phelps

University of New Mexico

Ali Soylu

Cameron University

ABSTRACT

The current disparity between the need for and number of physicians has made the practice of physician recruiting very difficult. A transition between the *Baby Boomer* generation and *Generation X* has significantly altered physician desires in their search for employment. Concurrently, legal restrictions have developed which strictly govern certain forms of compensation for these physicians. Human resource managers are challenged with the task of understanding both the changing generational profile and desires of physicians, as well as ensuring that those needs are met while remaining within current legal and regulatory realms. This paper seeks to elucidate the changing desires of physicians, the key legal constraints imposed by the Self-Referral and Anti-kickback laws, and the means whereby human resource managers have reconciled potential conflicts.

INTRODUCTION

The population of the United States is approximately 300 million and this number is expected to increase to approximately 340 million by the year 2020 (United States Census Bureau, 2008). A larger portion of this growth is expected to arise from the elderly population which is increasing in size due to declining death rates, increasing life expectancy, and the aging of the *Baby Boomer* generation (Rice and Fineman, 2004). The expansion of this demographic segment has also resulted in an increase of people with chronic diseases (Barondess, 2008; Boscoe, 2008; Larson, 2008; Rice and Fineman, 2004) such as diabetes, hypertension, coronary artery disease, and chronic pain.

The number of U.S. medical school graduates per 100,000 population dropped by 16 percent from 1981-1999 and this number is expected to decrease by an additional 16 percent by 2020 (Bahrami et al., 2002). Strategies to address anticipated workforce shortages in the early 21st century have included expanding medical school enrollment and graduate medical education positions, as well as increasing the number of medical schools and residency programs, especially in underserved areas (Norris et al., 2006). Although some of these measures have been implemented, the goal of significantly increasing the number of physicians has yet to be realized. Bahrami et al. (2002) state that if not for an influx of nearly six thousand international medical graduates per year the anticipated physician shortage would be a current reality. Additionally, approximately one third of all practicing physicians are age 55 or older and many of these physicians are considering retiring within the next few years (Brown and Freidman, 2007; Barlow and McCarthy, 2003; Bahrami et al., 2002). The decline in new physicians and the early (either impending or realized) retirement of practicing physicians has served to widen the gap between the need for medical services and the resources available to provide them.

Hospitals and, by extension, human resource (HR) managers must continually recruit physicians to fill this void in medical coverage (Shay, 2005). Additionally, hospitals many recruit physicians to increase their market share, expand their complement of services, satisfy health maintenance organization (HMO) contract terms (e.g. the hospital must provide orthopedic surgery services in order to maintain the contract), or fill current or anticipated job vacancies (McInerney 1998). Recruiting physicians is a strategic issue at the center of a healthcare organization's growth (Barlow and McCarthy, 2003). Care delivery organizations who are unable to attract and retain high-quality physicians suffer the long-term risk of losing clients and revenue as the physicians refer patients to these organizations for care (Adkisson and Bjelich, 2004). Bringing new physicians into a hospital or group also has the ability to bring up-to-date information and techniques, an increase in energy, and fresh ideas into a practice (Giovino, 2002). Barlow and McCarthy (2003) feel that physician recruiting is the central challenge in modern healthcare and that it affects strategy and marketing opportunities across the board.

While physician recruitment has consistently been integral part of the hospital HR manager's job, several factors have made this process increasingly difficult (Weymier, 2003). The previously mentioned discrepancy between physician supply and demand has made the competition for physician services fierce (Barlow and

McCarthy, 2003). This is especially true for rural areas (Fannin and Barnes, 2007; Rosenblatt et al., 2006) where the resources such as money (Weymier, 2003), culture, spousal employment opportunities (Rosenblatt et al., 2006), and technology necessary to recruit physicians are not readily available. Additionally, the arrival of the *Generation X* physicians (with their unique generation profile) into the marketplace has altered the traditional measures utilized in physician recruiting. Key legal and regulatory statutes including, but not limited to, the Federal Self-Referral and Anti-Kickback laws, have been enacted to prevent inappropriate interactions and referrals between physicians and health care entities. If HR managers, the recruiters whom they supervise, or both fail to abide by these regulations, serious consequences including fines and prison sentences may arise (Hallam, 1998). To date, little has been written examining the effects of the laws on physician recruiting and subsequent alterations in recruiting practices. This paper will seek to describe the forces driving the changing desires of contemporary physicians and their impact on recruitment. Additionally, the paper seeks to delineate the alterations in recruiting practices following the implementation of the self-referral prohibition laws.

DUTIES OF THE HUMAN RESOURCE MANAGER

HR managers have diverse and often complex duties (Hauff, 2007). As previously mentioned, recruitment is an essential and ongoing process (McInerney, 1998). HR managers must become strategic in their approach to recruiting and plan beyond the immediate need and develop programs that will support future staffing needs and the needs of the hospital (Hauff, 2007). Recruitment programs should be designed in conjunction with chief executive officers, chief financial officers, and other top executives (Adkisson and Bjelich, 2004; Manecke and Wild, 1994). The recruitment plan should identify community and physician needs, validate these needs with the existing medical staff, and develop a profile of the ideal candidate for each physician opportunity (Adkisson and Bjelich, 2004). Adkisson and Bjelich (2004) suggest developing an in-house recruitment model because hired recruiters may find qualified candidates but, ultimately, the hospital is still responsible for performing the actual recruiting. Additionally, the plan should include the proposed physician compensation model (Fannin and Barnes, 2007). Once the recruiting team has been established, HR managers must remember that competition is a major component of recruiting physicians (Hauff, 2007) and that in order to recruit high quality physicians they must be aware of the current market and legal realities as well as fully understand the array of factors that physicians consider when making decisions concerning employment opportunities (Hankins et al., 2002).

ALTERATIONS IN RECRUITING PATTERNS

Any alteration in a responsive recruiting practice must necessarily be driven by external influences. HR managers must balance the demands of the physician and the demands of the hospital while protecting all parties from either ethical or legal predicaments. The next section will examine several key factors in physician recruitment including generational differences, personal, professional, and socio-economic drivers. While this list is by no means exhaustive, it will assist in illuminating the reasons behind several common physician demands.

Generational Differences

Social science studies have revealed distinct motivations and values among different generations (Shangraw and Whitten 2007). The majority of physicians in current practice are from the *Baby Boomer* generation. Members of *Generation X* were born between 1961 and 1980 (dates vary) and comprise approximately 30% of the current physician workforce (Shangraw and Whitten, 2007) and much greater portion of the newly-trained workforce.

The profile of each generation is based, in large part, on its formative events occurring between the ages of 10-25 years (Shangraw and Whitten, 2007). *Generation X* members are often described as “latch key kids” and frequently dealt with parents who were absent secondary to work commitments. These same children then saw their parents involved in massive layoffs following lifetime dedication to individual companies. These events created a generation of self-sufficient, cynical individuals who value freedom and time more than money and recognition (Brown and Freidman, 2007; Shangraw and Whitten, 2007; Kennedy, 2003). *Generation X* members view a job as a portion of their identity, but often not the most important part (Kennedy, 2003). They desire an accommodation of work and life balance (Brown and Freidman, 2007) and will typically place family and friends above the workplace (Kennedy, 2003). *Generation X* is more concerned with career security than job security and are not particularly interested in either career progression or workplace relationships (Brown and Freidman, 2007; Shangraw and Whitten, 2007; Kennedy, 2003). Consequently, *Generation X* will change jobs much more quickly and frequently than preceding generations (Brown and Freidman, 2007).

Personal

Personal goals of newly trained physicians are often different from those of their predecessors (Weymier, 2003). Two career couples are increasingly common and the male partner is frequently taking a more active role in the care of children (Brown and Freidman, 2007). Female physicians may require special allowances for child care (Cejka, 1993). Mayo and Matthews (2006) found that the female spouses of family practice physicians played a key role in determining the ultimate employment location of the husband's practice. In fact, Hankins et al. (2002) found that the inability to find the physician's spouse appropriate employment was a key consideration in selecting employment opportunities. Geographical preferences also play an important role in employment decisions (Barlow and McCarthy, 2003; Hankins et al., 2002). Younger physicians are more likely to experience depression, anxiety, work strain, and job dissatisfaction than their older colleagues (Schindler et al., 2006). Younger physicians are much less tolerant of financial uncertainty (Giovino, 2002) than their older counterparts. Newly-trained physicians typically have large debt burdens from medical school loans (Giovino, 2002) and, consequently, are looking employment opportunities with greater financial stability.

Professional

Physicians typically seek opportunities with sound business practices and positions (Barlow and McCarthy, 2003) which will permit them to participate in administrative and policy-making duties (Mirsa-Herbert et al., 2004; Hankins et al., 2002). Barlow and McCarthy (2003) believe that strong organizational support must be offered to recruit new physicians. The opportunity to become a partner in a group practice is an additional inducement for physicians (Hankins et al., 2002). Younger physicians are also more comfortable with technology (Brown and Freidman, 2007) and are more likely to seek positions with electronic medical record and imaging capabilities. Hankins et al. (2002) surveyed 280 physicians who had completed their post-graduate training between 1990 and 2000 in an effort to understand the most common factors in practice location. They found that the technology of the practice, the ability to make partner, the ability to make decisions, and the ability to practice in an established group ranked third, fifth, sixth, and eighth, respectively, while total salary ranked seventh. Incoming physicians may also seek opportunities for research and teaching (Mirsa-Herbert et al, 2004).

Socio-economic Factors

Younger physicians typically feel comfortable in and often seek a diverse workplace (Shangraw and Whitten, 2007) and a culturally diverse workplace may increase job satisfaction and performance (Nunez-Smith et al., 2007; Price et al., 2005). Mirsa-Herbert et al. (2004) report factors such as age, race, and gender each contribute to job satisfaction and are sought in practice opportunities. Weymier (2003) feels that physicians must have an appropriate fit in terms of culture and gender to be successful.

While the aforementioned study by Hankins et al. (2002) lists compensation as one of only several important factors in physician employment decisions, it cannot be rejected as a powerful driver for physicians. They desire high income but are unwilling to sacrifice personal time (Weymier, 2003). Physicians may ask for sign on bonuses, loan repayment, and paid relocation (Barlow and McCarthy, 2003; Weymier, 2003) as part of the recruitment package.

Legal and Regulatory Issues

Several laws have been enacted to prohibit healthcare providers from monetarily benefiting from referrals for healthcare services and prevent overpayment for healthcare services that may be reimbursed by Medicare, Medicaid, or any other federal healthcare program. The most significant are the Federal Ethics in Patient Referral Act (Stark laws) and the Anti-kickback statute. While a full review of their history and tenets is beyond the scope of this paper, the review article by Morrison (2000) is an excellent primer on both the anti-kickback and self-referral laws.

Stark Laws

In the Omnibus Budget Reconciliation Act of 1989, Congress passed the The Ethics in Patient Referral Act of 1989. The statute was put in place to prohibit self-referrals for clinical laboratory services under the Medicare programs (Satiani, 2006; Morrison, 2000; McDowell, 1989). The provision, the so-called "Stark Law" or "Stark I",

was named after its chief legislative sponsor United States Representative Peter Stark from California. It prohibited a physician from referring a patient to any entity for the performance of designated health services (DHS, for a full list of Designated Health Services, please see Morrison, 2000) covered by a federal healthcare program if the physician or the immediate family member of the physician has a financial relationship with the entity performing the DHS. A financial relationship was defined as ownership of or investment in a DHS entity or a compensation agreement with a DHS entity (English et al., 2007; Morrison, 2000). The Stark Laws have undergone several iterations with the most recent, Stark III promulgated in September of 2007 and becoming effective in December of 2007 (Tayon, 2008). Several exceptions or “safe harbors” have been included in the Stark laws to protect physicians, ensure adequate or improved care, and encourage changes in the health care system. For a complete list and thorough discussion of these exceptions, please see Morrison (2000) and Tayon (2008). Several notable examples of exceptions affecting physician recruitment include the physician and host practice recruitment exceptions, bona fide employment exception, non-monetary compensation exception, professional courtesy discount exception, rental of office space and equipment exceptions, incidental benefits exception, the obstetrical malpractice insurance exception, and the electronic prescribing items and services and electronic health records items and service exceptions.

Difficulties with the Stark Laws

Despite its long history and frequent attempts at refinement and clarification, the Stark laws are often misunderstood and deemed relatively harsh. English et al. (2007) feel that there are three principal topics that make Stark laws difficult to manage. First, the Stark laws are strict liability laws. If either the physician or the hospital is outside of the rules, they are guilty of a violation (Scheutzw, 2001; Morrison, 2000). Second, the penalties for violations of the Stark laws are numerous. The Stark laws establish three primary civil monetary penalties violations based upon the type of violation that has occurred (Rabecs, 2002; Morrison, 2000). Finally, the most frequently cited difficulty with the Stark laws is a lack of guidance (English et al., 2007; Weinreich and Baim, 2003; Scheutzw, 2001; Morrison, 2000). The health care industry and the practice of medicine continue to evolve at a stunning pace. Despite its myriad of revisions and numerous exceptions or safe harbors, the laws have difficulty remaining current. Additionally, the alterations in the laws are vague and guidance and interpretation concerning them unclear (Weinreich and Baim, 2003). The laws have become so expansive that hospital legal departments have increasingly turned to consulting firms to ensure that they are in compliance with the regulations (Kusserow, 2007).

Federal Anti-kickback statute

The federal Anti-kickback statute was introduced in the 1972 Social Security Act (Morrison, 2000; McDowell, 1999) to prevent inappropriate remuneration of any kind for referrals or services billed under any federal or state health care program. Violators of the statute may be excluded from participation in the Medicare program (Scheutzw, 2001; Morrison, 2000). The Anti-Kickback law differs from the Stark laws in two key respects. First, it is a criminal statute and requires a demonstration of intent to violate the law, while the Stark law is a liability statute and does not require intent in order to find liability (Scheutzw, 2001; Morrison, 2000). Second, the Anti-Kickback law includes arrangements involving referrals between among and any type of person or entity, while the Stark Law only applies to physician referrals (Morrison, 2000). The Anti-kickback statute has exceptions or “safe harbors” similar to the Stark laws. The most applicable exceptions to physician recruiting are the practitioner recruitment, bona fide employment, space and equipment rental, and obstetrical malpractice insurance for underserved areas exceptions. These exceptions have similar effects upon physician recruiting as the corresponding exceptions in the Stark laws.

ALTERATIONS OF RECRUITMENT PRACTICE PATTERNS

Managers must not only appreciate the values of the newer generations, but must also reconcile their attitudes in regards to the values which they may not fully understand (Brown and Freidman, 2007; Shangraw and Whitten, 2007). Recruiters are increasingly utilizing technology such as the internet (Huxsaw, 2008), and networking sites to market their positions to a tech-savvy potential physician employees. Additionally, they are beginning to emphasize those items, such as quality of life, culture, location, and technology (Brown and Friedman, 2007; Mayo and Matthews, 2006; Barlow and McCarthy, 2003; Hankins et al., 2002; Giovino, 2002), that the newer generations of physicians value. The current legal and regulatory climate has forced many HR managers to apply a much more

rigorous review of potential contracts and many hospitals and their legal departments have begun to employ consultants to assist them in remaining within the bounds of the law (Kusserow, 2007).

Current employment offers typically contain items such as sign-on bonuses, paid relocation, and increased salary for less desirable locations, paid health and malpractice insurance, and, when applicable, retirement plans (Barlow and McCarthy, 2003). Income guarantees of two to three years instead of one year are becoming more popular (Weymier, 2003). Many hospitals supplement physician incomes by compensating them for administrative duties at an agreed upon fair market value price (Kusserow, 2007). In accordance with the desires of potential physician employees, many recruitment packages are increasingly offering atypical incentives. Flexible schedules with allowance for family or personal needs (Huxsaw, 2008, Weymeir, 2003) are becoming more common. These family-friendly policies are directed specifically at the younger generations (Brown and Freidman, 2007). Many hospitals and practices are assigning mentors to new physicians (Kennedy, 2003) to assist them in their transition from one location to another or from training to practice. As many newly recruited physicians lack experience in establishing a practice, are attempting to build a practice in a new area, or both, it is now common for the recruiting package to include items related to business development. These may include offering practice buy-ins (Giovino, 2002) the rental of office space or equipment, assisting with advertising (English et al., 2007), providing business or legal consultants (Kusserow, 2007; Stewart, 1996), either providing or supplementing the establishment of electronic prescribing or an electronic medical record, updating hospital or practice resources and technologies (Brown and Friedman, 2007), educational funds, computer allowances, incidental benefits such as free parking and discounted meals, and paid vacation and meeting times (Kapur, 2007).

CONCLUSION

There is clear evidence of a widening gap between the need for and supply of physicians (Rice and Fineman, 2004). Physicians understand the current healthcare situation and the dominant position in which this places them as they seek employment. As *Generation X* replaces the *Baby Boomers* in the workforce, their generational profile greatly influences the compensation, both monetary and non-monetary, that they seek (Brown and Friedman, 2007; Kennedy, 2003; Giovino, 2002). Concurrently, both the federal and state governments have enacted a series of legal measures preventing inappropriate interaction concerning and payment for medical services (Scheutzwow, 2001; Morrison, 2000). Marsh and Pursell (2005) "...do not believe that Congress intended [the Stark Laws] to regulate physician compensation practices, except as necessary to minimize financial incentives to refer [designated health services] to entities with which the physicians have financial relationships." These laws and regulations, however, have had a dramatic effect on the compensation for and subsequent recruitment of physicians. The compensation requests of the physicians are not always in accord with what is allowed by the law. HR managers typically have the responsibility of developing strategies for the process of recruiting for their institutions (Hauff, 2007; Adkisson and Bjelich, 2004; Manecke and Wild, 1994). The question remains: How do they accomplish this intimidating undertaking? Some might argue that the most appropriate way to attract physicians is simply to offer more in the way of salary and benefits (Hauff, 2007; Nolan, 2000). Nolan (2000) feels that there are two major problems with this approach: First, decreased reimbursements from Medicare and third-party payers decrease the ability of hospitals to continually escalate their compensation packages. Second, given the relatively high salaries physicians receive and the consequent high taxes, the increased level of compensation necessary to produce meaningful salary increases is prohibitive. The answer for HR managers, then, lies in an ability to understand the desires of physicians and use more non-traditional recruitment strategies and compensation offerings. For example, while newer physicians tend to desire financial stability (Giovino, 2002) this does not necessarily mean that they require larger salaries.

HR managers must simultaneously confront several tasks when recruiting physicians. These tasks include forming a recruitment plan and a recruiting team, marketing to and interviewing physicians, and constructing appropriate contracts to hire those physicians. They must understand not only physician desires, but also the legal and regulatory framework within which they must structure their compensation packages in order to protect both themselves and the physician. The difficulty lies in the fact that the Stark and Anti-kickback laws are complex and exceptions may change relatively rapidly. Marsh and Pursell (2005) define six questions which must be addressed to analyze whether or not a payment is permissible under the Stark laws: 1. Does the compensation involve a physician? 2. Does a financial relationship exist? 3. Does it involve a referral? 4. Is it for a designated health service? 5. Is the claim for Medicare or Medicaid? 6. Does the payment meet an exception? Using these questions, HR managers are able to quickly discern whether or not a particular compensation is appropriate. HR managers must recognize the limits of their understanding and turn to others for assistance. As previously stated, many hospitals are frequently turning to consulting firms (Kusserow, 2007) for aid. Successful HR managers realize that

an understanding of physician and hospital desires as well as the legal constraints affecting physician recruitment is absolutely necessary and have been able to restructure recruiting tactics and compensation packages to satisfy the demands of each party.

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INTRODUCING MANDATORY HEALTH INSURANCE: WHAT THE USA CAN LEARN FROM SWITZERLAND

Christina G. Zenker
Salem College, NC

ABSTRACT

As the United States is evaluating different forms of health care systems, it is helpful to look at the experiences of other countries. Switzerland introduced its system of mandatory health insurance in 1996. About 99% of the population is covered by a health system. In the Swiss system, every person has to purchase a basic insurance plan. The system subsidizes premiums for low-income households, which amounts to about 40% of all households. Despite this, Switzerland still spends less on health care per capita (\$4,300) than the USA (\$6,700). In addition, the effectiveness measured by life expectancy is higher in Switzerland than in the USA. In 2005, a Swiss could expect to live till 81.4 years, whereas the average American died at the age of 77.8. In the first section, the paper discusses the reasons for mandating health insurance. In the second section, it looks at the Swiss health insurance system and analyzes the system's advantages and disadvantages. In the third section, it discusses the feasibility of introducing mandatory health insurance in the USA.

INTRODUCTION

Health insurance suffers from the same problem that any insurance has. On the one hand, consumers are inclined to buy it the moment they need it. On the other hand, suppliers of insurance want to sell it to consumers who will hopefully never need and use it. The most profitable buyers of insurance—those who are more risk averse, lead healthy lifestyles, or don't have a history of disease in their families, are the least likely to buy it. This is the problem of adverse selection—the sickest (and hence least profitable) patients are the most likely to want insurance. The problem of adverse selection can be avoided by getting the entire population—healthy and unhealthy, risk averse and risk seeking—into one insurance pool and spreading the risk over all the people. This concept is already being used in car insurance in the United States. When it comes to health insurance, 46 million Americans are not insured. The new administration under President Obama is discussing reforms in the health care system. One of the reform ideas is to make health insurance mandatory.

The following paper looks at the health sector in Switzerland—a country that has turned to a mandatory health insurance system in 1996. It discusses the reasons that lead to the mandate of the program and analyzes the effectiveness of it. Lastly, it concludes that this system would be a good idea for the United States as well.

LACK OF HEALTH INSURANCE AS A MARKET FAILURE

Many economists view the market for health insurance as one where the risk of adverse selection is especially high. Adverse selection happens when there is asymmetry of information between buyers and sellers. In the insurance sector, it means that the patients (the buyers) can hide information from the insurance companies (the sellers). The patient can keep information about his or her health from the insurer.

Furthermore, people who would be considered “bad risks” from the point of view of the insurance company are more prone to buying health insurance. People with healthier lifestyles who don't get sick as often have less of an incentive to buy health insurance. As a result, the health insurance companies insure mainly bad risks with a higher probability of actually using the health insurance. This increases the cost of the premium of the health insurance.

An interesting example of a group with a higher risk profile is smokers. Non-smokers, on average, are more likely to live longer, while smokers, on average, are more likely to die younger. If insurers do not vary prices for health insurance according to smoking status, health insurance will be a more attractive deal for smokers than for non-smokers. So smokers may be more likely to buy insurance than non-smokers. The average mortality of the combined policyholder group will be higher than the average mortality of the general population. From the insurer's viewpoint, the higher mortality of the group which decides to buy insurance is “adverse”. The insurer raises the price of insurance accordingly. As a consequence, non-smokers may be less likely to buy insurance (or may buy smaller amounts) than if they could buy at a lower price to reflect their lower risk. The reduction in insurance

purchase by non-smokers is also “adverse” from the insurer's viewpoint, and perhaps also from a public policy viewpoint.

What also has to be taken into account is that most developed countries have the law or sometimes implicit rule that no one can be denied access to health care through the emergency room. In the United States, about a third or more of adults with chronic conditions who were uninsured or underinsured went to an emergency room for their condition, compared with 19 percent of adequately insured adults (Collins 2008). According to the Agency for Healthcare Research and Quality (AHRQ), hospital admissions for the uninsured increased by a third between 1997 and 2006, rising from 1.7 million to 2.2 million stays. The 34 percent increase is more than double the 14 percent rise in overall hospital admissions during the same period. AHRQ also found that the bill for treating uninsured patients has increased by 76 percent from \$11,000 to \$19,400 per stay over the same period (after adjusting for inflation) compared to a 69 percent increase in hospital charges overall (AHRQ 2009).

To mitigate this problem, some countries mandate health insurance. The idea is to insure the greatest possible amount of persons and to keep costs low by achieving a balanced mix of good and bad risks. The US mandates car insurance for these very reasons. Furthermore, Massachusetts, alone among the states, made health insurance mandatory in 2006. On a national level, the Netherlands and Switzerland mandate health insurance. The next chapter takes a closer look at the Swiss system.

THE SWISS EXPERIENCE

To pool health risks more evenly and to increase solidarity between the citizens, Switzerland decided to make health insurance mandatory in a popular vote in 1994. The new law came into use in 1996. The goal of the law was to improve the access and the affordability of health insurance as well as to contain costs for the insured. Beside the mandate, subsidies for people with lower income were introduced. If the premium is higher than 8% of the disposable income, citizens can ask for financial support from the government. Depending on the level of income, people get reimbursed from 20% to 100% of the health insurance premiums. About 40% of all Swiss households and a third of the population receive premium subsidies. In some cantons (a canton is equivalent to a US state) this share exceeds 50% (Leu et al. 2009). Immigrants must prove that they are covered by a health insurance when they register at the community. Once an individual is enrolled with an insurance company, the insurance company must continue enrollment until the individual can prove that he or she has changed insurance.

Swiss residents are required to enroll with a private insurance provider in a basic plan offering a regulated package of benefits. They can also opt for an improved coverage (private care etc.) at a higher cost. The Swiss insurance system is relatively decentralized, with plans operating and competing at the canton level.

Compared to other systems, the Swiss system demands a significant payment by the insured to keep public costs lower and to give the insured an incentive to keep people from taking less necessary health services. According to the law, the health insurance companies can't turn down anyone for the basic part of the health insurance. In order to divide the risks evenly between the health insurance and to discourage risk selection, those insurances with “better risks” have to put money aside in a fund that helps out the insurance companies with “worse risks”. For this fund, only the categories age and gender are taken into account: insurances with a higher fraction of male and young customers have to pay more into the fund than insurances who mainly cover women and older people.

The effectiveness of the Swiss system has been high: it covers more than 99% of the population. Furthermore Swiss life expectancy is significantly higher than life expectancy of the average OECD country as well as that of the US. Even though life expectancy has increased since the mandate of the health insurance, it is not possible to determine whether there is a correlation between the two. Furthermore, the self assessed health is also relatively higher than that of its neighboring countries. After a decade of existence, the system of mandatory health insurance is popular and accepted throughout the population (Crivelli, Domenighetti, and Filippini, 2006).

It has however also to be noted that the costs of the system are much higher than that of most countries. Compared to all OECD countries with the exception of the United States, Switzerland spends the most per capita on health care. The costs have gone up by a third since the introduction of the mandate of health insurance in 1996 and 2002 (OECD Health Data 2004). In comparison the United States still spent a third more than Switzerland per capita despite the much lower percent of people insured.

MAKING HEALTH INSURANCE MANDATORY IN THE USA?

Among the suggestions of health sector reforms, the Obama administration is examining mandatory health insurance. Reforms are certainly needed: As mentioned, the United States has the highest health care costs of all countries. The effectiveness of this spending is however not very high: in 2007 15.3% of all Americans don't have

any health insurance (Center on Budget and Policy Priorities, 2008). Furthermore, life expectancy at birth lies below that of the average OECD country.

What consequences would a mandate of the health insurance have? In general, one can assume that the number of people covered by health insurance will increase. Yet, there is no guarantee that this will occur as is shown by the example of mandatory car insurance. Despite the fact that car insurance is mandatory in all but three states, 14.6% of American citizens don't have insurance. In comparison, health insurance is not mandated (with the exception of Massachusetts) yet approximately the same percentage (15.3%) of all American citizens don't have health insurance coverage. It has to be asked whether a mandate would increase the amount of people covered since the mandate of car insurance didn't lead to a better coverage. Since the coverage went up to 99% in Switzerland after the mandate of health insurance was introduced, one has to wonder whether the difference in coverage comes from differences in the law enforcement systems. Switzerland's way of enforcing health insurance coverage is by providing the premium subsidies through the income tax system. The tax data is compared to enrollment information from insurance companies to identify individuals without coverage (Leu et al. 2009).

Another consequence from mandating health insurance is costs: Since the majority of people who don't have a health insurance are people with low incomes, it is to be expected that the amount of subsidies will increase to give those people a chance to be insured, thereby increasing the cost of the insurance. These potential future costs have however to be weighed against the benefits of not having to pay the costs of uninsured getting treated at emergency rooms anymore. The per capita health care costs in the US are already very high due to the fact that consumers of health are not the ones who are paying for it: There is no incentive for people to keep costs down. The rise in cost for the payers (the insurance companies) will only get passed on to consumers with a long time lag, thereby distorting the incentives to keep costs low. This problem of the "third party payer" cannot be solved by introducing a health insurance mandate. For a true reform of the health system, additional measures would have to be taken, for instance enforcing higher co payments to increase incentives to keep costs low.

CONCLUSION

The problem of low health insurance coverage in the United States remains. In particular young people and people with low economic means avoid getting insurance because they do not see the benefits. Health problems however, are unpredictable. When people without insurance get sick or injured, they will turn to an emergency room where he or she will receive treatment. Under this system, there is an incentive not to get insurance since one knows that one will get provided for anyway. The costs of this is carried by the insurance companies and ultimately by those persons who have health insurance coverage. For fairness reasons, making health insurance mandatory seems like a good solution so risks are spread more evenly. Furthermore, the mandate of health insurance solves the problem of adverse selection.

The problem of disincentives can not be completely avoided. When mandating health insurance, people who don't have the means to pay for the premiums have to get subsidies. This in turn will also distort incentives to keep health expenditures low. It seems however to be the lesser evil if in turn health insurance coverage can be extended to everybody in a relatively cost efficient way.

Despite the downsides that came from making health insurance mandatory in Switzerland, the overall outcome of this policy was successful. The health insurance coverage increased and the health outcomes are positive.

To improve the health care system in the United States, making health insurance mandatory would hopefully lead to the same positive results as it did in Switzerland. A mandate should however go along with other reform steps that address the problem of the third party payer.

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MAKING THE BUSINESS CASE FOR CHILDHOOD OBESITY INTERVENTIONS: IMPROVING RETURN ON INVESTMENT AND COST-EFFECTIVENESS ANALYSIS

Bryce S. Sutton

University of Alabama at Birmingham

ABSTRACT

The prevalence of obesity in the United States has increased dramatically among children and young adults. This increase has focused attention on the potential increase in medical expenditure that results from increased weight. The potential impact on US federal medical programs has led to an increased interest in the accurate economic evaluation of programs which may effectively reduce overweight. The accurate economic evaluation of overweight is complicated by the fact that there is a lack of evidence concerning the rates at which children transition into and out of healthy weight states. This uncertainty leads to disparate estimates in the potential cost-effectiveness and return on investment of child overweight interventions. In 1979, National Longitudinal Surveys (NLSY79), sponsored by the Bureau of Labor Statistics, began a multi-purpose panel survey which included a nationally representative sample of men and women aged 14-21 years of age as of December 31st, 1978. Starting in 1986, children of female respondents of NLSY79 have been surveyed biennially covering a wide range of measures. While the initial focus of the NLSY79 was on labor market behavior, the surveys, both NLSY79 and child surveys, now contain an expansive set of detailed questions including but not limited to information on height and weight necessary to calculate a body mass index. This extensive database provides an opportunity to examine longitudinal data critical to understanding patterns of obesity, permanency of obesity over time, and to obtaining precise estimates of the budgetary impact of child obesity interventions.

INTRODUCTION

The well documented rise in US obesity is not limited to adults. The prevalence of US childhood and adolescent obesity has increased substantially (Hedley, Ogden et al. 2004). Children and adolescents who are overweight or obese are at a higher risk to be overweight or obese as adults (Serdula, Ivery et al. 1993; Guo, Roche et al. 1994; Whitaker, Wright et al. 1997). Once overweight or obesity is attained in childhood there is a low probability of achieving a healthy body weight through voluntary weight loss in adulthood (Stunkard and Penick 1979). Morbidity associated with obese adults is well documented with an increased risk of coronary heart disease, hypertension, and diabetes. The adverse health outcomes in adults are now observed among obese children with a 10 fold increases in the prevalence of Type 2 (adult onset) diabetes among children in the past 20 years (Pi-Sunyer 1993). These co-morbidities impose a heavy burden on U.S. health care resources. Recent research has focused attention on quantifying the excess healthcare utilization due to childhood and adult obesity.

Excess healthcare utilization among adults has been estimated to increase medical expenditures by approximately 9%, imposing a large burden on Medicare and Medicaid (Finkelstein, French et al. 2004). Because of the documented permanence obesity there has been an increased interest in the longitudinal course of overweight and obesity from childhood to adulthood. A better understanding of the longitudinal course of obesity is essential to improving economic evaluations of interventions to reduce obesity and the subsequent impact on federal and state government expenditures. Return on investment, cost-effectiveness analysis, and economic evaluation in general is now recognized as an important tool in medical and health care decision making. Likewise the use of economic evaluation as a tool to guide the allocation of scarce health care research dollars has led to increased inclusion of cost-effectiveness analyses in National Institute of Health (NIH) and Centers for Disease Control and Prevention (CDC) grant applications. This increased emphasis on economic evaluations also reflects pressure by government and non-governmental organizations (NGOs) to provide evidence not only of effectiveness but of the budgetary impact of achieving any particular health outcome.

Despite the increasing importance of economic evaluation of health care interventions, few studies have examined the cost-effectiveness of childhood obesity interventions. Several school based interventions have successfully reduced BMI in children and adolescents (Gortmaker, Cheung et al. 1999) but only two studies have examined the cost-effectiveness of school-based interventions in reducing BMI (Goldfield, Epstein et al. 2001; Wang, Yang et al. 2003). Only one of these two studies incorporated data on rates of transition from childhood obesity to adult obesity (Wang, Yang et al. 2003). Obstacles to return on investment and cost-effectiveness evaluations of child interventions to reduce obesity stem from the time period between the initial onset of

overweight, the manifestation of obesity related morbidity later in life, and the associated productivity losses from this morbidity and early mortality. To overcome these difficulties mathematical modeling has been employed to estimate transition probabilities of advancing from an overweight child to an overweight adolescent to an overweight adult, and overall medical costs averted from being an overweight(Whitaker, Wright et al. 1997). However, no cost-effectiveness study currently exists that has incorporated longitudinal data critical to understanding patterns of obesity, permanency of obesity over time, and to more precisely obtaining estimates of the budgetary impact of child obesity interventions.

DATA

In 1979, National Longitudinal Surveys, sponsored by the Bureau of Labor Statistics, began a multi-purpose panel survey which included a nationally representative sample of 12,686 men and women aged 14-21 years of age as of December 31st, 1978. This extensive database, called the National Longitudinal Survey of Youth (NLSY79), included substantial over-samples of African-Americans and Hispanics. Starting in 1986, children of female respondents of NLSY79 have been surveyed biennially in various ways covering a wide range of measures. While the initial focus of the NLSY79 was on labor market behavior, the surveys, both NLSY79 and child surveys, now contain an expansive set of detailed questions including but not limited to information on socio-economic status (SES), health conditions, insurance coverage, alcohol and substance abuse, and sexual activity. Prior to the 1994 survey, the majority of children in the sample were less than 10 years of age. Samples sizes of children less than 10 years of age in this survey range from 4676 in 1986, to 1621 in 2002. Sample sizes of children and adolescents aged 10-14 years range from 294 in 1986 to 1608 in 2002. Therefore this sample provides an excellent opportunity to examine trends in childhood Body Mass Index (BMI) over time and among ethnically diverse groups.

Traditional approaches to examining trends in obesity have focused on the analysis of large cross-sectional data sets like the National Health and Nutritional Examination Survey (NHANES)(Flegal, Carroll et al. 2002; Hedley, Ogden et al. 2004). The use of cross-sectional datasets, while informative, is not as instructive in showing patterns of obesity development over time. This information is critical to development and implementation of interventions at the optimal time, both in terms of effectiveness and cost-effectiveness. US classifications of “overweight” and “at risk for overweight” in children were developed by the CDC based on several nationally representative surveys of the US population(Flegal, Carroll et al. 2002). These classifications use BMI calculated as kilograms per meter squared. The term “overweight” in children is applied to those individuals whose BMI exceed the 95th percentile for children of the same age and sex. The classification “at risk for overweight” in children is applied to those children whose BMI fall between the 85th and 95th percentiles for children of the same age and sex.

METHODS

To examine weight classification among children and adolescents, BMI was calculated for all children in each year of the biennial NLSY79 child survey through 2002. Based upon the age, gender, and BMI of the child, an age and gender specific percentile ranking will be assigned for each individual. Using the CDC percentiles, each child was be classified as either “overweight”, “at risk for overweight”, or “not at risk for overweight”. The age and gender specific cumulative incidence for “overweight” was calculated as the probability that a person with no prior “overweight” will become “overweight” in the biennial survey time period. This incidence was calculated based on age and gender.. Calculation of incidence on subsets of the sample can be used to identify at risk-groups and the ages in which cases of overweight accelerate. Because children who are overweight are at greater risk to become overweight or obese as adults, interventions need to target at risk groups before this acceleration of overweight incidence occurs.

The cost-effectiveness of a child obesity intervention depends critically on the groups being targeted and the timing of the intervention. Economic justification for obesity interventions on children is strong compared to that of adults(Finkelstein, French et al. 2004). In evaluating specific the rates of transition from not being overweight to becoming overweight across age and gender, health researchers can more effectively target groups who may be contributing most to the overall prevalence of obesity. Better identification and targeting of interventions, improves the return on investment and cost-effectiveness of these interventions.

Incorporation of these data can greatly improve upon existing return on investment cost-effectiveness models of obesity. The only cost-effectiveness model of obesity targeted at children and adolescents identified, used cross sectional data from the 1999 NHANES dataset(Wang, Yang et al. 2003). This analysis models the progression from childhood overweight to adult overweight across three age categories: post intervention age 14 years, age 21-29 years, and age 40-65 years. In the evaluation of this data I calculate incidence and prevalence of at risk for

overweight and overweight individuals to expand our understanding of the potential return on investment and the cost-effectiveness of childhood interventions at an early age by examining biennial transitions among young children from ages 2-13. By incorporating observed incidence among these groups we may improve the targeting of effective childhood interventions and maximize the weight reduction among these children for the health care dollars expended.

RESULTS

For the NLSY79 Children and Young Adults Survey height and weight data were used to calculate the Body Mass Index (BMI). US classifications of “overweight” and “at risk for overweight” in children were developed by the Centers for Disease Control based on several nationally representative surveys of the US population (Ogden, Kuczmarski et al. 2002). These classifications use BMI calculated as kilograms per meter squared (kg/m^2). The term “overweight” in children is applied to those individuals whose BMI exceed the 95th percentile for children of the same age and sex. The classification “at risk for overweight” in children is applied to those children whose BMI fall between the 85th and 95th percentiles for children of the same age and sex. Percentile rankings for each classification are specific for age and gender.

The age of the sampled cohort in 1986 is largest for both genders in 1986 among 2-6 year old children, when the age of the mothers ranged from 14-21 years of age. Due to the distribution of children across age groups, there are a small number of young adults in 1986 and a small number of children by 2002. This distribution leads to a small number of individuals by age and gender across weight classification in 1986 and 2002. While incident cases of at risk for overweight and overweight were calculated for all ages from 2 to 15 years from 1986 to 2004, results are presented only from years in which there were at least 1000 individuals for each gender and ages from 1986 to 2002. For example in 1986 to 2002, the number of males 2 years of age in each yearly sample ranged from 54 to 262. The total number of males of 2 years of age in the sample at anytime during the years 1986 to 2002 was 1442. Incident case by gender are presented here only when the total number of individuals by gender for any particular age is above 1000.

Incident cases in the sample represent an individual who transitions from a normal (or underweight) BMI classification to an at risk for overweight or an overweight BMI classification. Incident cases are an integral part of any return on investment or cost-effectiveness evaluation as the return or cost-effectiveness of the interventions depends on the proportion of individuals who do not transition into unhealthy weight states among the intervention group relative to the observed incidence of unhealthy weight states among a control group for the age and gender groups under consideration. For the biennial NLSY79 Children Survey, biennial incident cases for each gender and year were calculated for 3-5 year olds to 11-13 years of age during the survey years 1986-2002.

For individuals aged 3 years of age at anytime during the survey period, the proportion of individuals who were at healthy weight state at age 3 years and became at risk for overweight at age 5 years was 9.6%. Likewise the proportion of individuals at age 3 who are at a healthy weight and will become overweight in two years is 11.5%. The combined incidence of unhealthy weight states for the period from 3-5 years of age is 21.5%. This indicates that within this sample there is a greater than 1 in 5 chance that a child 3 years of age will become at risk or overweight by 5 years of age. While the incidence of overweight declines steadily from age 3-13 years, the incidence of at risk for overweight peaks by 9 years of age at 12.4% and remains above 10% through 13 years of age.

While the declining incidence for combined unhealthy weight states is encouraging the overall percentage of any age group within a particular weight state, or prevalence, depends also on the permanence of obesity, rates of relapse from healthy to unhealthy weights, and also from successful weight reduction. For prevalence of at risk for overweight or overweight to decline, the rate at which individuals transition from unhealthy to healthy weights must be greater than the rate at which individuals transition from health to unhealthy weights. To examine the overall prevalence of weight states over time during the survey period 1986-2002, the proportion of individuals in either healthy or unhealthy weight states regardless of the amount of time an individual has experienced that weight state was examined.

The data indicate an overall increase in at risk for overweight or overweight in the sample for every year except 1994. Over the 6 year period the combined prevalence of unhealthy weight states increased by over 100% from 19.5% in 1986 to 40.2% for all individuals in the sample. The weight state with the largest growth was the overweight group representing those individuals who are at the 95th percentile or greater BMI. The growth of the proportion of individuals who are overweight was approximately 175% over 6 years. The percentage decrease in the proportion of individuals falling into a healthy weight state was over 25%, with only 60% of the individuals in 2002 having a healthy weight.

The overall prevalence of statistics of the sample indicate that overall, individuals are transitioning into unhealthy weights states faster than individuals are transitioning from unhealthy to healthy weight states. While the combined incidence of unhealthy weight states declines through childhood, there is still over a 40% chance that an individual within the sample, regardless of age, would be overweight or at risk for overweight by 2002.

CONCLUSION

While childhood incidence of overweight at risk for overweight appears to be declining it is still high leading to an increase in the overall combined prevalence of unhealthy weight. The length of time in which these events occur also indicate that the time periods in which a third-party payer might be willing to recover their investment in a child and or young adult intervention may be too short to achieve a positive return. As the health costs of obesity related morbidity accrue later in life large reductions in obesity would likely be required in a short time period. However the potential savings could be substantial later in life when age-specific medical costs can grow rapidly. Economic evaluation is required with a longer time horizon to accurately determine cost-effectiveness of childhood obesity interventions. The quality of these economic evaluations depends critically on the longitudinal course of obesity by age and gender for the general population. Additional data is also required for the follow-up period for any current or proposed intervention to carefully assess relapse rate or rates of maintenance of healthy weight states.

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TECHNOLOGY SPILLOVER AND PRODUCT QUALITY: THE CASE OF PRODUCTION COST ASYMMETRY

Yuying Xie

Shepherd University

ABSTRACT

This paper introduces production cost asymmetry to the examination of spillover effects on product quality. Using a popular setting of duopolistic competition in a quality-price two-stage game, and assuming that the market has a R&D-oriented foreign firm that is relatively more efficient in R&D but relatively inefficient in production and a production-oriented local firm that is relatively inefficient in R&D but efficient in production, we find that the production cost differential between the firms is critical to the spillover effect on the foreign firm's product quality, although the spillover recipient always gets a free upgrade in its product quality. When the production differential is insignificant, the foreign firm's strategic quality is increasing in the level of spillover, and it is decreasing otherwise. The reason is that, in the first case, the gain from achieving a sufficient level of differentiation outweighs the cost of R&D, but in the later case a high enough production cost undercuts the gain from differentiation and instead makes the reduction in R&D cost worthwhile.

INTRODUCTION

Tradition wisdom holds that technology spillovers decrease the spillover supplier's incentive to advance (Spence, 1984; Lahiri & Ono, 2004). It is not until recently that a paper by (Oladi, Beladi, & Chau, 2008) argues that, when firms compete in a differentiated-product market, technology spillovers forces the spillover supplier to pursue higher product quality. This paper studies the technology spillover effects on firms' choices of product quality in the case of production cost asymmetry. Using a popular setting of duopolistic competition in a quality-price two-stage game (Champsaur & Rochet, 1989; Motta, 1993; Lehmann-Grube, 1997), and assuming that the market has a Research & Development (R&D)-oriented foreign firm that is relatively more efficient in R&D but relatively inefficient in production and a production-oriented local firm that is relatively inefficient in R&D but efficient in production, we find that the production cost differential between the firms is critical to the spillover effect on the foreign firm's product quality, although the spillover recipient always gets a free upgrade in its product quality. When the production differential is insignificant, the foreign firm's strategic quality increases in the level of spillover, and it decreases when otherwise. The reason is that, in the first case, the gain from achieving a sufficient level of differentiation outweighs the cost of R&D, but in the later case a high enough production cost undercuts the gain from differentiation and instead makes the reduction in R&D cost worthwhile.

THE MODEL

We assume that a spillover supplier (firm f), with better R&D capability, and a spillover recipient (firm h), with significantly poor R&D capability, produce a quality-differentiated product in a market with a fixed population. The two firms engage in a two-stage game with complete and perfect information. In stage 1, firms develop their own product quality, $q_i \in (0, \infty)$, ($i=d, f$), R&D that requires a deterministic level of investment for desirable results. We define the R&D cost function as $F(q_i) = c_i q_i^2$, ($i = d, f$). In stage 2, both firms follow Bertrand competition and simultaneously set their optimal prices, p_i . Production cost Asymmetry is realized in this stage, and, for simplicity, we assume firm f has a unit production cost β_f and firm h has zero production cost.

Consumers have a heterogeneous preference to quality, denoted τ , which is uniformly distributed on interval $[0, 1]$. Each consumer purchases at most one unit of the differentiated good and obtains a utility, τq . The price consumers pay is p , so consumer surplus for preference τ is $CS = \tau q - p$. Among all consumers, there exists a consumer with preference $\tau^* \in [0, 1]$ who is indifferent between consuming either quality, $\tau^* q_f - p_f = \tau^* q_h - p_h$. τ^* then has the value of $\tau^* = (p_f - p_h) / (q_f - q_h)$. Consumers with $\tau \in [\tau^*, 1]$ prefer the high-quality good q_f . In the remaining consumers, there exists another consumer with $\underline{\tau}$ who is indifferent between consuming the low quality and consuming nothing, $\underline{\tau} q_h - p_h = 0$. So $\underline{\tau}$ has the value $\underline{\tau} = p_h / q_h$. Consumers with $\tau \in [\underline{\tau}, \tau^*)$ prefer the low-quality good q_h at the price of p_h , and the rest consumers with $\tau \in [0, \underline{\tau}]$ prefer not to consume anything. Thus, the demand for each firm's goods is respectively:

$$x_f = 1 - (p_f - p_h) / (q_f - q_h) \quad (1)$$

and,

$$x_h = (p_f - p_h) / (q_f - q_h) - p_h / q_h. \quad (2)$$

where $x_f(x_h)$ is the market share for firm f (firm h).

Technology Spillover

We assume that spillovers transmitting the technology of know-how from firm f to firm h in stage 1 reduce firm h 's R&D cost to an extent that it does not flip the relationship between the R&D cost coefficients. The reduction can be reflected in the recipient's R&D cost function as follows:

$$F^h(q_h; \theta) = (c_h - \theta q_f) q_h^2 \quad (3)$$

where $\theta \geq 0$ is the degree of spillover and $c_h - \theta q_f > c_f$. A higher θ means a greater degree of technology spillovers, which results in a greater reduction in firm h 's R&D cost. A greater differentiation in quality also enhances the spillover effect. Hence, the profit functions can be written as:

$$\pi^f = [1 - (p_f - p_h) / (q_f - q_h)] (p_f - \beta_f) - c_f q_f^2 \quad (4)$$

and,

$$\pi^h = [(p_f - p_h) / (q_f - q_h) - p_h / q_h] p_h - (c_h - \theta q_f) q_h^2 \quad (5)$$

where p_f , p_h , q_f and q_h are endogenous variables and c_f , c_h , β_f and θ are exogenous variables. The technology spillover effects refer to the reactions of the endogenous variables to an exogenous change of θ . Firms play a simultaneous quality-then-price game to maximize noncooperative profits. Using backwards induction, we will firstly examine Bertrand Competition in stage 2 and lastly quality competition in stage 1.

Bertrand Competition

Taking first-order conditions of the profit functions with respect to prices, we can solve for equilibrium prices as follows:

$$p_f = 2q_f(q_f - q_h + \beta_f) / (4q_f - q_h) \quad (6)$$

and,

$$p_h = q_h(q_f - q_h + \beta_f) / (4q_f - q_h). \quad (7)$$

We see that the equilibrium price of firm f is always twice the quality-adjusted price of firm h , $p_f / q_f = 2p_h / q_h$. Compared with the case of no production cost, the presence of firm f 's unit production cost, β_f , increases both firms' prices, but p_f is increased by twice the quality-adjusted increase in p_h . The net price firm f receives, $p_f - \beta_f$, must be positive in order to yield positive revenues for firm f . If we let $\underline{\beta}$ be the upper limit, this condition thus requires:

$$\beta_f < \underline{\beta} = 2q_f(q_f - q_h) / (2q_f - q_h). \quad (8)$$

Substituting prices into the demand functions, we have:

$$x_f = [2q_f(q_f - q_h) - \beta_f(2q_f - q_h)] / [(4q_f - q_h)(q_f - q_h)] \quad (9)$$

and,

$$x_h = q_h(q_f - q_h + \beta_f) / [(4q_f - q_h)(q_f - q_h)]. \quad (10)$$

x_f and x_h are strictly positive because $\beta_f < 2q_f(q_f - q_h) / (2q_f - q_h)$ and $q_f > q_h$. Substituting equilibrium prices into the profit functions, we have:

$$\pi^f(q_h, q_h; \theta) = [2q_f(q_f - q_h) - \beta_f(2q_f - q_h)]^2 / [(4q_f - q_h)^2(q_f - q_h)] - c_f q_f^2 \quad (11)$$

and,

$$\pi^h(q_h, q_h; \theta) = \{q_f q_h [q_f - q_h - \beta_f]^2\} / [(4q_f - q_h)^2 (q_f - q_h)] - (c_h - \theta q_f) q_h^2 \quad (12)$$

In stage 1, firms anticipate the interaction of the Bertrand competition, so the profits only depend on endogenous variables q_f and q_h . Both firms set their own quality to maximize noncooperative profits in stage 1.

Quality Competition

Deriving the first-order conditions from eq. (11) and (12), we have:

$$\pi_f^f(q_h, q_h; \theta) = 4q_f(4q_f^2 - 3q_f q_h + 2q_h^2) / (4q_f - q_h)^3 - 4\beta_f q_h^2 / (4q_f - q_h)^3 - \beta_f^2(2q_f - q_h)(8q_f^2 - 10q_f q_h + 5q_h^2) / (4q_f - q_h)^3(2q_f - q_h)^2 - 2c_f q_f = 0 \quad (13)$$

and,

$$\pi_f^h(q_h, q_h; \theta) = [q_f^2(4q_f - 7q_h) + 2\beta_f q_f(4q_f + q_h)] / (4q_f - q_h)^3 + \beta_f^2 q_f(4q_f^2 + q_f q_h - 2q_h^2) / (4q_f - q_h)^3(2q_f - q_h)^2 - 2(c_h - \theta q_f) q_h = 0 \quad (14)$$

Implicit solutions cannot be obtained due to the complexity of the equations, but we can examine technology spillover effects through the analysis of comparative statics.

Comparative Statics

Taking total differentiation of both reaction function (13) and (14) gives us the system:

$$\begin{aligned} \pi_{11}^f dq_f + \pi_{11}^h dq_h &= 0 \\ \text{and,} \\ \pi_{21}^h dq_f + \pi_{22}^h dq_h &= -2q_f q_h d\theta \end{aligned} \quad (15)$$

where

$$\pi_{11}^f = [-8q_h^2(5q_f + q_h) + 48\beta_f q_h^2] / (4q_f - q_h)^4 + [2\beta_f^2(64q_f^4 - 160q_f^3 q_h + 192q_f^2 q_h^2 - 112q_f q_h^3 + 25q_h^4)] / [(4q_f - q_h)^4(q_f - q_h)^3] - 2c_f \quad (17)$$

$$\pi_{12}^f = [8q_f q_h(5q_f + q_h) - 4\beta_f(8q_f + q_h)] / (4q_f - q_h)^4 - [2\beta_f^2(32q_f^4 - 44q_f^3 q_h + 36q_f^2 q_h^2 - 20q_f q_h^3 + 5q_h^4)] / [(4q_f - q_h)^4(q_f - q_h)^3], \quad (18)$$

$$\pi_{21}^h = [2q_f q_h(8q_f + 7q_h) - 2\beta_f(16q_f^2 + 16q_f q_h + q_h^2)] / (4q_f - q_h)^4 - [2\beta_f^2(16q_f^4 + 8q_f^3 q_h - 24q_f^2 q_h^2 + 8q_f q_h^3 + q_h^4)] / [(4q_f - q_h)^4(q_f - q_h)^3] + 2\theta q_h, \quad (19)$$

and,

$$\pi_{22}^h = [-2q_f^2(8q_f + 7q_h) + 4\beta_f q_f(8q_f + q_h)] / (4q_f - q_h)^4 + [6\beta_f^2 q_f(8q_f^3 - 5q_f^2 q_h - q_f q_h^2 + q_h^3)] / [(4q_f - q_h)^4(q_f - q_h)^3] - 2(c_h - \theta q_f). \quad (20)$$

Before analyzing the comparative statics, we must examine the second-order conditions and the stability condition. We show in the next section that the conditions can be locally satisfied by imposing a tighter restriction to upper bound of β_f . Considering the conditions now satisfied, we can derive the comparative statics by applying Cramer's rule. The spillover effect on q_h is:

$$dq_h / d\theta = -2q_f q_h \pi_{11}^f / |D| \quad (21)$$

For a stable system, we know $\pi_{11}^f < 0$ and $|D| > 0$, so the sign of the term is strictly positive, $dq_h / d\theta > 0$. We therefore reach our first proposition:

Proposition 1: Assume a stable system and Bertrand competition in the second stage. Regardless of whether firm f has a production cost or not in its production process, the presence of technology spillovers always raises the quality of the low-end firm h .

Likewise, the spillover effect on q_f is:

$$dq_f / d\theta = 2q_f q_h \pi_{12}^f / |D|. \quad (22)$$

The sign of the effect depends on the sign of π_{12}^f , which is in turn determined by β_f . Setting $\pi_{12}^f = 0$ and solving for β_f , we can obtain one and only one critical value for β_f :

$$\beta_f^* = \{ - (8q_f + q_h)(q_f - q_h)^2 + (4q_f - q_h)(q_f - q_h)^{3/2} q_h (40q_f^4 - 23q_f^3 q_h + 9q_f^2 q_h^2 - q_f q_h^3 - q_h^4) \}^{1/2} / [32q_f^4 - 44q_f^3 q_h + 36q_f^2 q_h^2 - 20q_f q_h^3 + 5q_h^4]. \quad (23)$$

For $\beta_f < \beta_f^*$, $\pi_{12}^f > 0$. For $\beta_f = \beta_f^*$, $\pi_{12}^f = 0$. And for $\beta_f > \beta_f^*$, $\pi_{12}^f < 0$ where $\beta_f^U < \beta_f^*$. In the next section, we will show that β_f^* is a value within the boundary of β_f . Hence, we reach the following proposition.

Proposition 2: Assume a stable system and Bertrand competition in the second stage. For a relatively small difference in production cost, $\beta_f < \beta_f^*$, q_h are strategic complements to q_f and the presence of technology spillovers raises the product quality of the high-end firm f ; for a relatively large difference in production cost, $\beta_f > \beta_f^*$, q_h are strategic substitute to q_f and the spillovers lower the product quality of the high-end firm f ; and for $\beta_f = \beta_f^*$, the spillovers have no effect on q_f .

Stability Conditions

The second-order conditions and stability condition require $\pi_{11}^f < 0$, $\pi_{22}^f < 0$ and $|D| = \pi_{11}^f \pi_{22}^f - \pi_{12}^f \pi_{21}^f > 0$. From reaction functions (13) and (14), we solve for c_f and c_h and substitute them into (15) and (16). After simplification, we can rewrite the second-order derivatives as:

$$\pi_{11}^f = -4q_f(16q_f^2 - 16q_f q_h + 21q_h^2) / (4q_f - q_h)^4 + 4\beta_f q_h^2(16q_f - q_h) / [q_f(4q_f - q_h)^4] + \beta_f^2(192q_f^5 - 512q_f^4 q_h + 620q_f^3 q_h^2 - 372q_f^2 q_h^3 + 95q_f q_h^4 - 5q_h^5) / [q_f(4q_f - q_h)^4(q_f - q_h)^3] \quad (24)$$

and.

$$\pi_{22}^f = -q_f^2(16q_f^2 - 16q_f q_h + 21q_h^2) / (4q_f - q_h)^4 - 2\beta_f q_f(16q_f^2 - 16q_f q_h - 3q_h^2) / [q_h(4q_f - q_h)^4] - \beta_f^2 q_f(16q_f^4 - 64q_f^3 q_h + 21q_f^2 q_h^2 + 17q_f q_h^3 - 8q_h^4) / [q_h(4q_f - q_h)^4(q_f - q_h)^3]. \quad (25)$$

From (24) solving $\pi_{11}^f = 0$, we obtain the upper bound of β_f satisfying $\pi_{11}^f < 0$. We denote the value as β_f^{**} :

$$\beta_f^{**} = \{ 2(q_f - q_h) \{ -q_h^2(16q_f - q_h)(q_f - q_h)^2 + (4q_f - q_h)[(q_f - q_h)(192q_f^5 - 608q_f^4 q_h + 1068q_f^3 q_h^2 - 1092q_f^2 q_h^3 + 684q_f q_h^4 - 228q_f^2 q_h^5 + 27q_f q_h^6 - q_h^7)]^{1/2} \} \} / (192q_f^5 - 512q_f^4 q_h + 620q_f^3 q_h^2 - 372q_f^2 q_h^3 + 95q_f q_h^4 - 5q_h^5) \quad (26)$$

and, for any pair of (q_f, q_h) at equilibrium, we have the relation of $\beta_f^* < \beta_f^{**} < \beta$.

To prevent firm f from leaving the market, we require its profit to be positive, $\pi^f > 0$. Particularly, when $\beta_f = \beta_f^*$, we require $q_f > (3 + \sqrt{7})q_h$ for a positive π^f . The required variance in qualities is increasing in β_f . The key is that π_{22}^f is strictly negative for any combination of (q_f, q_h) satisfying $q_f > (3 + \sqrt{7})q_h$. Hence, both second-order conditions can be locally satisfied while allowing for a significant β_f flipping the sign of π_{12}^f to be negative.

To analyze the stability condition, let us first consider zero spillover, $\theta = 0$. For any $\beta_f < \beta_f^*$, the stability condition is strictly satisfied. At $\beta_f = \beta_f^*$, the system is also stable, $|D| = \pi_{11}^f \pi_{22}^f > 0$. But if $\beta_f = \beta_f^{**}$, we find $|D| < 0$. So the stability condition imposes a tighter limit to the upper bound of β_f . If we denote the final upper bound as β_f^U , it clear is a value within the interval of β_f^* and β_f^{**} due to that $|D|$ is a concave function of β_f . When $\theta > 0$, it does not change β_f^* but shifts the upper bound of the stability condition higher. Therefore, there exists a range of value of $\beta_f \in [\beta_f^*, \beta_f^U]$ that flips the sign of π_{12}^f , and eventually flip the direction of the spillover effect on q_f .

CONCLUSION

This paper studies the interaction between two heterogeneous duopolies in response to R&D spillovers in a vertically differentiated market. The analysis involves a two-stage quality-price game in which the firm with better R&D capability produces a high-quality good and the other firm with relatively poor R&D capability produces at the low end and is the spillover recipient. We also impose production cost asymmetry by assuming the high-end producer incurs a unit production cost.

The result shows that, disregard the production cost asymmetry, the low-end product quality is strictly increasing in technology spillovers due to the cost reduction in R&D made possible by the spillovers. However, the production cost asymmetry is critical to the nature of the relation of both qualities, and hence controls the signs of spillover effect on the high-end product. Specifically, when the production cost differential is not significant, the qualities are strategic complements, and the high-end product quality is increasing in technology spillovers due to the need for a significant level of differentiation. But when the production cost differential is significant, the qualities are strategic substitutes, and the high-end product quality is decreasing in technology spillovers due to the relation that the marginal cost of R&D outweighs the marginal benefit of differentiation.

The conventional thoughts that spillovers discourage investments and the result of a recent study by (Oladi, Beladi, & Chau, 2008) that spillovers drive up investments due to the need for sufficient product differentiation are two streams of the literature. We show that the joint of both streams may well lies on the matter of production cost asymmetry. If the level of investment and the quality of product are two objectives for policy makers, a closer look at production cost asymmetry would be a necessary step before drafting any policies.

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CREDIT RATING AND IPO LONG-TERM PERFORMANCE

Kam C. Chan

Western Kentucky University

Yung Ling Lo

Western Kentucky University

ABSTRACT

We examine the impact of credit ratings on long-term IPO pricing. The information asymmetry hypothesis predicts that the provision of credit ratings prior to IPO can reduce information asymmetry and improve market efficiency. Consistent with the information asymmetry hypothesis, we find that IPOs with (without) credit ratings are less (more) underpriced and more positively (negatively) perceived by outside investors. The market reactions for IPOs with credit ratings are more immediate and more complete (as the results of improved transparency), while long-term performance is insignificant when information asymmetry is reduced.

INTRODUCTION

We examine the impact of credit ratings on IPO long-term pricing. According to An and Chan (2008), rated IPO firms have significantly less IPO underpricing in the first trading day than the unrated IPO firms. Consistent with information asymmetry theory and the finding in An and Chan, we find that providing the market with a credit rating prior to IPO issuance can significantly reduce information asymmetry problems and improve market efficiency. We extend the An and Chan study to examine the long-term IPO performance. More specifically, we argue that the information asymmetry hypothesis predicts IPOs with credit ratings should have less underpricing, more immediate and more complete market reactions, and insignificant long-term performance. The reduced underpricing is the result of information risk reduction, since investors will demand higher risk premium when perceiving higher risk. Therefore reduced information asymmetry will lead to lower required returns and higher security prices (Beatty and Ritter, 1986). In addition, IPOs with good credit ratings should have less underpricing and receive more positive market reactions than those with poor credit ratings. Most importantly, the information asymmetry hypothesis predicts that the provision of a credit rating prior to the IPO issuance can speed up price correction and improve market efficiency. Therefore, the complete price correction should (not) occur in the short run for the IPO sample with (without) credit ratings, leaving zero (abnormal) long-term performance.

METHODOLOGY AND RESULTS

IPO information during 1986~2004 is obtained from the Securities Data Corporation (SDC). Credit rating information follows An and Chan (2008). Return information is obtained from CRSP, while accounting information is supplied by Compustat. Risk-free rates and factors for the factor models are downloaded from Kenneth French's web site (http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html). Our final sample contains 3,941 IPO firms, while 130 firms have credit ratings.

In Table 1, we examine the underpricing and initial price performance of IPO firms. CRSP value-weighted (VW) and equal-weighted (EW) returns are both used as benchmarks, while only value-weighted results are provided to conserve space. Cumulative abnormal return (CAR) is calculated based on Brown and Warner (1985) methodology. Results are winsorized at 1 and 99 percentiles.

Table 1. *Market Reaction of IPO Firms*

Panel A: Market Reaction based on whether the Firm Has Prior Credit Rating

	Underpricing	VW CAR [-1,1]	VW CAR [-1,3]	VW CAR [-1, End-of-Month]
Overall Sample	20.56% ($<.0001$)***	0.19% (0.0047)***	0.29% ($<.0001$)***	0.32% (0.0150)**

IPO with CR	7.67% ($<.0001$)***	1.36% ($<.0001$)***	1.57% ($<.0001$)***	0.89% (0.0002)***
IPO without CR	20.99% ($<.0001$)***	-0.37% ($<.0001$)***	-0.33% ($<.0001$)***	0.04% (0.7795)
CR – No CR	-13.32% ($<.0001$)***	1.73% ($<.0001$)***	1.90% ($<.0001$)***	0.85% (0.0049)***

Panel B: Market Reaction based on the Quality of Credit Rating

	Underpricing	VW CAR [-1,1]	VW CAR [-1,3]	VW CAR [-1, End-of-Month]
Overall Sample	7.67% ($<.0001$)***	1.36% ($<.0001$)***	1.57% ($<.0001$)***	0.89% (0.0002)***
BBB or + CR	3.97% (0.5429)	1.47% (0.0443)**	1.69% (0.0002)***	0.88% (0.0600)*
Below BBB CR	8.19% ($<.0001$)***	0.00% (0.9963)	0.00% (0.9321)	1.01% (0.1796)
BBB – Below BBB	-4.22% (0.4465)	1.47% (0.1812)	1.69% (0.0241)**	-0.13% (0.9090)

In Table 1 Panel A, all IPO firms are assigned into either the “with” or “without” credit rating prior to IPO portfolio. Our results in Panel A are consistent with the underpricing literature and that IPO firms in general receive positive price reactions. Also consistent with our information asymmetry hypothesis, IPOs with credit ratings prior to IPOs have less underpricing when the provision of credit ratings can reduce information asymmetry risk and required returns (Beatty and Ritter, 1983). Across all of the three event windows used, we find that the market persistently reacts positively to IPOs with credit ratings. On the other hand, IPOs without credit ratings initially experience negative market reactions; however, the longer event window shows a reversal of price reaction from negative CARs to positive CARs, indicating firms with more information asymmetry problems tend to experience slower price adjustment. The difference between the two portfolios is always statistically significant, while IPOs with credit ratings receive more positive market reactions than those without credit ratings. Our results in Table 1 indicate IPO firms can use credit ratings to reduce the information asymmetry problems and trigger more immediate and more positive market reactions than those without credit ratings.

In Table 1 Panel B, only IPOs with credit ratings are included. We now classify IPOs into two portfolios based on the quality of the credit ratings. IPOs with credit ratings of BBB or higher are assigned into the investment grade portfolio; otherwise they are assigned into the poor quality portfolio. Our results show that majority of the positive market reactions found in Panel A are contributed to IPOs with good credit ratings. More specifically, IPOs with good (poor) credit ratings experience positive (no) market reactions.

To determine whether the positive price reactions found in Table 1 are the results of reduced information asymmetry problems, we also examine the long-term performance in Tables 2 and 3. We use calendar-time approach factor models for our long-term studies since CARs and buy-and-hold abnormal returns (BHARs) are both problematic (Lyon, Barber, and Tsai, 1999), while the bootstrapping BHAR procedure assumes event-firm abnormal returns are independent (Mitchell and Stafford, 2000). Since both the three-factor model (Fama and French, 1993) and the four-factor model (Carhart, 1997) provide similar results, only results based on four-factor models are provided in the table. The calendar-time approach four-factor model is: $r_{it} = \alpha_i + b_i \text{MKT}_t + s_i \text{SMB}_t + h_i \text{HML}_t + p_i \text{PR1YR}_t + e_{it}$ where i represents the credit and no credit portfolio, while r_{it} represents the monthly return of the portfolios in excess of T-bill rate at month t , starting at $t = 1$, the month following the IPO date. MKT represents the excess monthly return on the value-weighted market proxy at time t . SMB and HML are calculated as the small portfolio return minus the large portfolio return and the high book-to-market return minus low book-to-market return, respectively. PR1YR is the one-year price momentum return, and it is calculated as the equal-

weighted return average of firms with the highest 30 percent return in the past eleven months minus firms with the lowest 30 percent return during the same time period. The intercept reflects the average monthly abnormal return. In addition, a zero-investment portfolio of taking a long position in no credit rating portfolio and a short position in credit rating portfolio is constructed to examine abnormal profits. Again, the intercept will represent the monthly abnormal return obtained from the zero-investment portfolio. We follow Ang and Zhang (2004) to use a weighted least square (WLS) method in the estimation because WLS provides more reliable results than the ordinary least square does. In addition, a zero-investment portfolio of taking a long position in no credit rating portfolio and a short position in credit rating portfolio is constructed to examine zero-investment abnormal profits.

Consistent with Brav, Geczy, and Gompers (2000), we find that factor models can eliminate the long-term underperformance found in IPO firms. In fact, our results in Panel A Table 2 indicate that, overall, IPO firms outperform non-IPO firms in the long run, while the majority of positive long-term abnormal returns is contributed to the IPOs without credit ratings. The results indicate that IPOs without credit ratings are more underpriced. More importantly, IPOs with credit ratings prior to issuance do not have abnormal long-term performance. Consistent with the information asymmetry hypothesis, by providing credit ratings to outside investors prior to IPO issuance, IPO firms are able to reduce information asymmetry problems and allow the market to accurately estimate the fair market value of the firm. Therefore, complete price correction occurs in the short run, leaving the long-term performance to be statistically insignificant. On the other hand, IPOs without credit ratings have more information asymmetry problems. With information asymmetry problems, complete price correction is less immediate. Such incomplete and less immediate price correction will result in long-term abnormal performance.

Table 2. *Calendar-Time Approach Four-Factor Analysis on Provision of Credit Ratings*

Panel A: One-Year Performance based on Four-Factor Model

	A	B	s	h	p
Overall Sample	-0.06 (0.7891)	1.20 (<.0001)***	1.01 (<.0001)***	-0.59 (<.0001)***	-0.09 (0.0811)*
Credit Rating	0.35 (0.4398)	1.00 (<.0001)***	0.80 (<.0001)***	0.19 (0.2186)	-0.27 (0.0027)***
No Credit Rating	-0.07 (0.7723)	1.20 (<.0001)***	1.02 (<.0001)***	-0.62 (<.0001)***	-0.08 (0.1137)
Zero Investment Portfolio(No-Yes)	-0.98 (0.0827)*	0.32 (0.0230)**	0.19 (0.2509)	-0.69 (0.0008)***	0.29 (0.0177)**

Panel B: Three-Year Performance based on Four-Factor Model

	α	B	s	h	p
Overall Sample	0.29 (0.0981)*	1.17 (<.0001)***	1.01 (<.0001)***	-0.45 (<.0001)***	-0.42 (<.0001)***
Credit Rating	-0.03 (0.9162)	1.10 (<.0001)***	0.74 (<.0001)***	0.33 (0.0009)***	-0.33 (<.0001)***
No Credit Rating	0.30 (0.0919)*	1.17 (<.0001)***	1.02 (<.0001)***	-0.48 (<.0001)***	-0.42 (<.0001)***
Zero Investment Portfolio	0.16 (0.6398)	0.13 (0.1451)	0.2822 (0.0041)***	-0.76 (<.0001)***	-0.09 (0.2401)

Panel C: Five-Year Performance based on Four-Factor Model

	α	B	s	h	p
Overall Sample	0.44 (0.0069)***	1.14 (<.0001)***	1.03 (<.0001)***	-0.29 (<.0001)***	-0.38 (<.0001)***

Credit Rating	-0.10 (0.6908)	1.14 ($<.0001$)***	0.74 ($<.0001$)***	0.44 ($<.0001$)***	-0.35 ($<.0001$)***
No Credit Rating	0.46 (0.0057)***	1.14 ($<.0001$)***	1.04 ($<.0001$)***	-0.32 ($<.0001$)***	-0.38 ($<.0001$)***
Zero Investment Portfolio	0.45 (0.1360)	0.06 (0.4674)	0.32 (0.0002)***	-0.70 ($<.0001$)***	-0.04 (0.5660)

Table 3. Calendar-Time Approach Four-Factor Analysis on IPOs with different Credit Ratings

Panel A: One-Year Performance based on Four-Factor Model

	α	b	s	h	p
BBB or + CR	-1.17 (0.1381)	0.92 ($<.0001$)***	0.07 (0.7110)	0.92 (0.0006)***	0.34 (0.0129)**
Below BBB CR	0.55 (0.2615)	1.03 ($<.0001$)***	0.94 ($<.0001$)***	0.06 (0.7459)	-0.38 (0.0002)***
BBB – Below BBB	-2.11 (0.0636)*	-0.15 (0.5876)	-1.13 ($<.0001$)***	0.76 (0.0425)**	0.73 ($<.0001$)***

Panel B: Three-Year Performance based on Four-Factor Model

	α	B	s	h	p
BBB or + CR	-0.17 (0.7489)	1.02 ($<.0001$)***	0.22 (0.1211)	0.30 (0.0934)*	-0.32 (0.0009)***
Below BBB CR	-0.03 (0.9152)	1.13 ($<.0001$)***	0.85 ($<.0001$)***	0.35 (0.0010)***	-0.34 ($<.0001$)***
BBB – Below BBB	-0.54 (0.3459)	-0.25 (0.0921)*	-0.71 ($<.0001$)***	-0.05 (0.8045)	0.06 (0.5589)

Panel C: Five-Year Performance based on Four-Factor Model

	α	B	s	h	p
BBB or + CR	0.19 (0.6454)	0.95 ($<.0001$)***	0.31 (0.0041)***	0.32 (0.0170)**	-0.42 ($<.0001$)***
Below BBB CR	-0.16 (0.5519)	1.18 ($<.0001$)***	0.82 ($<.0001$)***	0.47 ($<.0001$)***	-0.33 ($<.0001$)***
BBB – Below BBB	0.19 (0.6586)	-0.29 (0.0119)**	-0.56 ($<.0001$)***	-0.18 (0.2299)	-0.03 (0.7011)

In Table 3, we examine the difference in long-term performance between those with good credit ratings and those with poor credit ratings to make sure our factor model results are completely consistent with the information asymmetry hypothesis. The results in Table 3 are consistent with the information asymmetry hypothesis. Whether the IPOs have good or poor credit ratings prior to IPOs, no abnormal long-term performance is observed. Therefore, whether the IPOs have good or poor credit ratings, IPO firms can provide credit ratings to outside investors prior to stock issuance to reduce information asymmetry problems, to allow more immediate and more complete price adjustment, and to improve market efficiency. More importantly, managers of high quality IPO firms should

increase disclosure through credit ratings or other means to signal their high quality. By doing so, the increased disclosure can reduce underpricing prior to stock issuance and cause the market to react more positively in the short run.

CONCLUSIONS

Consistent with the information asymmetry reduction hypothesis, we find IPOs with credit ratings prior to stock issuance have significantly less initial underpricings relative to companies without credit ratings (An and Chan, 2008). The less initial underpricing is consistent with the information asymmetry theory which predicts that investors will demand higher risk premium when perceiving higher information risk. Therefore, higher information risk can cause lower security prices (Beatty and Ritter, 1986). Next, we find IPOs with favorable credit ratings to experience the most positive market reactions, while IPOs without credit ratings receive the worst market reactions. Most importantly, IPOs with (without) credit ratings prior to IPO issuance do not (do) have (positive) abnormal long-term performance. The insignificant long-term performance of the sample with credit ratings indicates complete price adjustment in the short run as the result of increased disclosure. Therefore, all of our results are consistent with the information asymmetry hypothesis. Reducing information asymmetry can reduce risk premium and price discount. Most importantly, improving disclosure can speed up price discovery and improve market efficiency.

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RATIONALITY OF EXCHANGE RATE EXPECTATIONS IN DOLLAR / EURO EXCHANGE MARKET**Fazlul Miah***Fayetteville State University***ABSTRACT**

This research investigates Rational Expectation Hypothesis (REH) in the context of Dollar / Euro exchange rate using consensus survey data published by FX4casts.com. The data covers December 2001 to January 2009 period. We use five different unit root tests, and two co-integration tests, and compare the results from these tests to reinforce our conclusion. Results show that one and six month-ahead forecasts are rational. There are conflicting results for the twelve month-ahead expectations. There is also clear evidence that forecast errors get larger as the forecast horizon increases.

HOW DO MARKETS REACT TO CHANGES IN FEDERAL FUNDS RATES? AN EMPIRICAL STUDY

E. M. Ekanayake

Bethune-Cookman University

Sunando Sengupta

Bowie State University

ABSTRACT

Using the event-study methodology provided by the *EVENTUS* software, this paper examines the stock price reaction of thirty different companies listed in the Dow Jones Industrial Average (DJIA) to Federal Funds target rate (FFTR) change announcements using *CRSP* daily stock returns over the period from January 3, 1994 to October 26, 2007. We test for the presence of abnormal returns using three different event windows. The results show that the mean abnormal return is higher for the event dates when the Fed kept the FFTR rates unchanged compared to the event dates when the Fed either increased or decreased the FFTR rate. We also found a positive significant abnormal return on the event dates when the FFTR rate was decreased. The results seem to indicate that markets tend to react more positively when the status quo is maintained in the FFTR market rather than when there is a change.

INTRODUCTION

This study investigates the effects of Federal Funds target rate changes on the stock performance of 30 companies listed in the Dow Jones Industrial Average (DJIA) over the period from January 3, 1994 to October 26, 2007. Using an event-study framework, this study examines how the stock market responds to the expected financial performance of the firm at the announcement of Federal Funds target rate changes. The findings of this study suggest that the changes in the Federal Funds target rate are found to have a significant effect on stock prices around the event days. The results indicate that the mean cumulative abnormal returns are mostly positive and significant on the days the Federal Funds target rate was reduced. They are mostly negative and significant on the days the Federal Funds target rate was increased. However, there is also evidence that the market reacted positively even if the funds target rate remained unchanged. These findings are consistent with the findings of previous studies on the relationship between the stock prices and the Federal Funds target rate.

METHODOLOGY

This study employs a standard event study methodology and we fit a standard market model to measure normal performance:

$$R_{it} = \alpha + \beta R_{mt} + \varepsilon_{it} \quad \text{where } E(\varepsilon_{it}) = 0 \quad \text{and} \quad \text{var}(\varepsilon_{it}) = \sigma_{\varepsilon_{it}}^2 \quad (1)$$

Each sample calendar date is converted to event time by defining the date of the bell ringing event date as event date 0. So for a morning bell ringing event, event date 0 is the same trading day. For a FFTR event, event date 0 is the following trading day. The regression coefficients α and β are estimated in an ordinary least squares (OLS) regression during the estimation period one year (255 trading days) prior to the event period (event days -300 through -46). The event period consists of 61 trading days centered on the FFTR event (-30 through +30). We define four event windows based on the event date, [-30, -2], [-1, 0], [+1, +2] and [+3, +30]. As proxy for the return for the market portfolio R_{mt} , both the *CRSP* value weighted index and the *CRSP* equal weighted index is used.

Under standard assumptions, OLS is a consistent estimation procedure for the market model parameters. Under the assumption that asset returns are jointly multivariate normal and independently and identically distributed (*iid*), OLS is also efficient. The prediction errors, PE_{it} , which represent abnormal returns, are simply the OLS residuals, ε_{it} .

$$PE_{it} \equiv \dots = \dots - \dots + \dots \quad (1)$$

with

$$\sigma_{it}^2 = \frac{1}{255} \sum_{\tau=-1}^1 \dots \quad (3)$$

The prediction error, PE_{it} , is used as an estimator of the abnormal return. In other words, the abnormal return is the residual term of the market model calculated on an out of sample basis. Let $AR_{it} \tau = \dots - \dots + \dots + \dots$ be the sample of 61 abnormal returns for firm i in the event window. Under the null hypothesis, conditional on the event window market returns, the abnormal returns will be jointly normally distributed with a zero conditional mean and conditional variance:

$$AR_{it} \sim N(0, \sigma^2 (AR_{it})) \quad (4)$$

The conditional variance σ^2 has two components. The first component is the disturbance σ_{it}^2 from (3), and the second component is additional variance due to sampling error in estimating the market model parameters α and β :

$$\sigma^2 = \sigma_{it}^2 + \frac{1}{255} + \frac{1}{255} \sigma^2 = \frac{1}{255} \sum_{\tau=-1}^1 \dots \quad (5)$$

Since the estimation window is large (255 trading days), I assume that the contribution of the second component to σ^2 is zero.

To draw inferences about the average price impact of an event, abnormal return observations have to be aggregated across securities and through time. Average abnormal returns AAR_t are formed by aggregating abnormal returns AR_{it} for each event period $\tau = \dots - \dots + \dots + \dots$. Given N events (for our sample, $N = \dots$),

$$AAR_t = \frac{1}{N} \sum_{i=1}^N \dots \quad (6)$$

Under the assumption that average abnormal returns are independent across securities, the asymptotic variance equals to

$$Var(AAR_t) = \frac{1}{N} \sum_{i=1}^N \dots \quad (7)$$

The average abnormal returns are aggregated through time to give the cumulative average abnormal return,

$$CAAR_i(\tau_1, \tau_2) = \sum_{\tau=\tau_1}^{\tau_2} \dots \quad (8)$$

Setting the covariance terms to be zero,

$$var(CAAR_i(\tau_1, \tau_2)) = \sum_{i=1}^N \dots \quad (9)$$

$$\text{Hence, } CAAR_i(\tau_1, \tau_2) \sim N(0, var(CAAR_i(\tau_1, \tau_2))) \quad (10)$$

This can be used to test the null hypothesis that the abnormal returns are zero.

Because σ_{it}^2 is unknown, it has to be estimated. Since on a single day there are two FFTR ringing events involving two firms, it is quite likely that abnormal returns are cross-sectionally correlated across securities. Hence using σ_{it}^2 in (7) to construct test statistics could cause a potential problem. Brown and Werner (1985) suggest a 'crude dependence adjustment' which uses the variance of portfolio residuals from the estimation period rather than the sum of variances of residuals for individual securities. Therefore the estimated variance of AAR_t is

$$\sigma_{\tau} = \frac{\sum_{i=1}^N (r_{i\tau} - \bar{r}_{\tau})^2}{N-1} = \frac{\sum_{i=1}^N r_{i\tau}^2 - N\bar{r}_{\tau}^2}{N-1} \quad (11)$$

The portfolio test statistic for day τ in event time is

$$t = \frac{\bar{r}_{\tau}}{\sigma_{\tau}} \quad (12)$$

Assuming time series independence, the test statistic for $CAAR_i(\tau_1, \tau_2)$ is

$$t = \frac{\bar{CAAR}_i(\tau_1, \tau_2)}{\sqrt{(\tau_2 - \tau_1 + 1) \sigma_{\tau}^2}} \quad (13)$$

If clustering is present, this portfolio approach will impound any residual cross-sectional correlation in its estimate of portfolio residual's standard deviation. Nevertheless, besides being cross-sectionally correlated, the abnormal return estimators often have different variances across firms. A common way of addressing this problem is the standardized residual method (Patell, 1976). Define the *standardized abnormal return*, SAR_{it} as

$$SAR_{it} = \frac{r_{it}}{\sigma_{\tau}} \quad (14)$$

Where

$$\sigma_{\tau}^2 = \frac{1}{N} \left(\sum_{i=1}^N r_{it}^2 + \sum_{i=1}^N r_{it} \bar{r}_{\tau} + N \bar{r}_{\tau}^2 \right) \quad (15)$$

is the maximum likelihood estimate of the variance. Under the null hypothesis each SAR_{it} follows a Student's t distribution with $T-2$ degrees of freedom. Summing the SAR_{it} across the sample yields

$$ASAR_{it} = \sum_{i=1}^N SAR_{it} \quad \text{where} \quad ASAR_{it} \sim N(0, Q_{\tau}) \quad (16)$$

The Z-test statistic for the null hypothesis that $CAAR_i(\tau_1, \tau_2) = 0$ is

$$Z(\tau_1, \tau_2) = \frac{1}{\sqrt{N}} \sum_{i=1}^N \frac{ASAR_{it}}{\sqrt{Q_{\tau}}} \quad (17)$$

The two test statistics so far discussed use the variance estimate from the market model during the estimation period to estimate the variance of the abnormal return estimator. But frequently, events increase the variance of returns, so that the event period variance is greater than the estimation period variance. Two common proposals for coping with event-induced variance are the cross-sectional standard deviation method proposed by Brown and Warner (1985) and the standardized cross-sectional test developed by Boehmer, Musumeci and Poulson (1991). The cross-sectional standard deviation method substitutes a daily cross-sectional standard deviation for the portfolio time-series standard deviation. The portfolio test statistic for day t in event time is

$$t = \frac{\bar{r}_t}{\sigma_t} = \frac{1}{N-1} \sum_{i=1}^N \frac{r_{it}}{\sigma_t} \quad (18)$$

We use the above equation to calculate *Adjusted-t*.

The *standardized cross-sectional method* is a hybrid of the standardized-residual and the cross-sectional approach:

$$Z_t = \frac{\bar{r}_t}{\sigma_t} = \frac{1}{N-1} \sum_{i=1}^N \frac{r_{it}}{\sigma_t} \quad (19)$$

We use the above equation to calculate *Adjusted-Z*

DATA

The data sets to be analyzed are the daily stock prices of all 30 companies listed in the Dow Jones Industrial Average (DJIA) and the data on Federal Funds target rates. The data cover a period of eleven years from January 3, 1994 to October 26, 2007. We used the CRSP daily returns data from EVENTUS software in Wharton Research Database Service. These 30 companies encompass large capitalized stocks and are representative of all stocks traded on the American stock exchanges. The data on Federal Funds target rates are from the Federal Reserve Bank.

We define the event as a Federal Open Market Committee (FOMC) meeting day. We collected the data on changes to FFTR from the minutes of the FOMC meetings in the period between January 3, 1994 and October 26, 2007. During this period, there were 114 FOMC meetings. Of these 114 events, Federal Funds target rate was reduced 21 times, increased 30 times, and no rate change took place in 63 times.

RESULTS

We used a sample of the thirty companies in the Dow Jones Industrial Index (DJIA) and we fitted a standard market model and calculated the abnormal returns using the following three event windows: [-30, 2], [-1, 0] and [+1, +30]. We define the event date as the date zero.

Using CRSP data and the market model, we estimated the mean abnormal returns for three event windows utilizing the EVENTUS software. The estimated results for the event windows when FFTR decreased are presented in Table 1. We estimated the mean abnormal returns in two ways: (a) using the market model with equally weighted index; and (b) using the market adjusted returns with equally weighted index. The results indicate that, when FFTR was reduced, there is a statistically significant 0.21 percent mean abnormal return for the window [-1, 0], using equal weighted index as proxy for market portfolio return. However, the return drops to 0.08 percent when market adjusted returns with equally weighted index was used. The results suggest that markets on average tend to react positively when FFTR was reduced.

The estimated mean abnormal returns for the event windows when FFTR was increased are presented in Table 2. For the event dates when FFTR increased, surprisingly, we found a significant 0.08 percent mean abnormal return for the window [-1, 0]. However, the estimated mean abnormal returns post a -0.03 percent change when market adjusted returns with equally weighted index was used. Thus, the results suggest that markets on average tend to show a mixed reaction when FFTR was increased.

The most interesting result shows up for the event dates when FFTR was unchanged. The estimated mean abnormal returns for the event windows when FFTR was unchanged are presented in Table 3. We find a significant 0.44% mean cumulative abnormal return for the event window [-1, 0]. The results indicate that the markets react most positively when the FFTR rates are kept unchanged as versus the case when FFTR is decreased. It seems that the markets do not like uncertainty.

Table 1. *Event Dates When FFTR Decreased*
(a) Market Model, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30,-2)	580	- 0.75%	- 0.59%	257:322<	-1.292§	-0.715	-2.003*
(-1, 0)	580	0.21%	0.20%	296:284	1.646*	0.769	1.237
(+1,+30)	580	- 2.12%	- 2.37%	232:348<<<	- 5.148***	- 1.969*	- 4.080***

Note: The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a 1-tail test. The symbols (< or >) etc. correspond to \$, * and show the significance and direction of the generalized sign test.

(b) Market Adjusted Returns, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30,-2)	580	- 0.61%	- 0.34%	271:309<	-0.658	-0.524	-0.568
(-1, 0)	580	0.08%	0.17%	289:291	1.288§	0.268	0.928
(+1,+30)	580	- 2.88%	- 3.28%	214:366<<<	- 6.246***	- 2.419**	- 5.306***

Note: The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a 1-tail test. The symbols (< or >) etc. correspond to §, * and show the significance and direction of the generalized sign test.

Table 2. Event Dates When FFTR Increased

(a) Market Model, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30,-2)	723	- 0.32%	- 0.29%	359:364	-1.149	-0.531	0.777
(-1, 0)	723	0.08%	- 0.09%	322:401<	-1.423\$	0.512	-1.977*
(+1,+30)	723	0.92%	0.86%	407:316>>>	3.384***	1.481§	4.350***

Note: The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a 1-tail test. The symbols (< or >) etc. correspond to §, * and show the significance and direction of the generalized sign test.

(b) Market Adjusted Returns, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30,-2)	723	- 1.87%	- 2.01%	305:418<	- 7.113***	- 3.034**	-2.308*
(-1, 0)	723	- 0.03%	- 0.23%	303:420<<	-3.056**	-0.196	- 2.457**
(+1,+30)	723	- 0.53%	- 0.46%	358:365)	-1.612§	-0.845	1.644§

Note: The symbols \$, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a 1-tail test. The symbols (< or >) etc. correspond to §, * and show the significance and direction of the generalized sign test.

A COLLEGE'S DECADE LONG ASSAULT ON FINANCIAL ILLITERACY IN AN URBAN ENVIRONMENT

Katherine W. Causey
LeMoyne-Owen College

Michael O. Minor
University of Memphis

ABSTRACT

This research in progress will assess a college's efforts to ameliorate financial illiteracy over a decade period 2000-2010. Urban colleges have a vested interest in the viability of their surrounding communities. Financial illiteracy is of importance to urban colleges as both a community outreach effort and an internal student and staff internal initiative. Four questions will guide this research: 1) What are the knowledge and experiences of respondents relating to financial illiteracy in an urban environment, 2) What are the communal changes in knowledge and experiences relating to financial illiteracy over time, 3) What is the efficacy of financial training programs in an urban environment, and 4) What are effective financial illiteracy assessment tools? Two bodies of literature will support this study: financial literacy and management and adult learning theory.

INTRODUCTION

Do adults have a good command of personal finance and investments? Results of several studies suggest they do not (Chen & Volpe, 1998). Princeton Survey Research Associates (1997) surveyed 1,770 households nationwide on their financial knowledge and find an average correct score of 42 percent (Chen & Volpe, 1998). In another study of 522 adult women, 56 percent were found not very knowledgeable about investing (Oppenheimer Funds/Girls Inc., 1997; Chen & Volpe, 1998). Although financial planning dates back for nearly 100 years (Godwin, 1990a; Muske & Winter, 2004), studies continue to show low usage of the recommended practices and concern continues about the financial preparedness of Americans (Braunstein & Welch, 2002; Bankruptcy Filings, 2003; Muske & Winter, 2004). Based on 1992 data, the research division of the Federal Reserve Bank Board of Governors concluded in 1997 that 151 percent of families in the United States do not have any type of bank transaction accounts.

LeMoyne-Owen College through its community outreach arm – LeMoyne-Owen College Community Development Corporation (LOCCDC) has been instrumental for the past decade in combating the deleterious consequences that lead to financial illiteracy. This “assault” began indirectly through efforts promoting homeownership in the community surrounding the college. LOCCDC implemented an aggressive homebuying counseling initiative involving academicians, economic development and financial service professionals and community residents. Soon it was clear that financial illiteracy and financial management were the major impediments to homeownership qualification for community residents.

To address these problems, the LOCCDC took a holistic approach in addressing the financial literacy needs of the community. Not only addressing the basic fundamental needs of financial literacy, LOCCDC developed strategies that would lead to economic empowerment to include financial literacy that would ultimately lead to wealth accumulation. The key components were home-buyer education, investment education and entrepreneurship. Financial literacy and financial management quickly rose to the forefront of outreach efforts.

Between 2000 and 2005, the homeownership promotion continued in various iterations. However, it was clear that more in-depth training was needed. The ultimate goal was homeownership, but not always long-term wealth building or even financial stability. The financial literacy and financial management components needed to be separated into a standalone effort. During 2005, there were discussions among the various stakeholders on how to achieve this goal. It was decided that the emphasis would now focus on wealth accumulation, which would have as a consequence the ability to afford and purchase a home. Financial Empowerment Training (FET) was implemented with a funding grant from the U.S. Department of Health and Human Services. FET offered asset formation and financial literacy training in four focal areas: checking, savings, credit and taxes.

METHODOLOGY

For purposes of this study, both qualitative and quantitative methodologies will be used. First, quantitative descriptive statistical analysis will be undertaken of data obtained from the study community and study participants. Secondly, qualitative analysis will be undertaken to assess respondents' knowledge and experiences relating to financial illiteracy through phenomenological methodology. Third, quantitative statistical analysis will be undertaken to ascertain relationships among financial literacy assessment and demographic data and access to financial literacy training and/or information. This study will focus on both individual and communal assessments.

DATA COLLECTION AND ANALYSIS

The data will be collected over ten years through surveys, assessment tools, and community demographic research. By analyzing data over a decade long period, this study will contribute to the body of knowledge useful in identifying effective financial literacy assessment tools and developing effective financial assessment tools in urban environments. It also will allow for an assessment of several financial training models adapted to urban environments.

CONCLUSIONS

The lack of this knowledge will continue to erode the populous in urban communities and neighborhoods. Citizens are already falling prey to the economic recession we are now facing and as a result members of these communities are facing foreclosures and repossessions. The findings from this research are considered to be a work-in-progress in an on-going attempt to formulate and implement strategies that will allow opportunities for longer-term wealth creation.

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CPAS' MORAL REASONING AND SUPPORT FOR EXPANDING SARBANES-OXLEY TO NONPUBLIC ENTITIES**Paul W. Allen***Mississippi State University, Meridian***Kevin L. Ennis***Mississippi State University, Meridian***ABSTRACT**

This paper views the Sarbanes-Oxley Act of 2002 (SOX) as governmental intervention intended to strengthen the corporate governance of publicly traded companies. As such, SOX is seen as an intrusive government attempt at assisting the CPA profession in fulfilling its moral responsibility to protect the public interest from unscrupulous financial reporting by corporate management. Since CPAs are instructed via their professional code of conduct(s) to act in the public interest, this paper examined whether CPAs' moral reasoning relates to support for expanding SOX to nonpublic entities. The findings suggest that, from a moral perspective, CPAs do not support expanding SOX to nonpublic entities. That is, it appears that CPAs view an expansion of SOX to nonpublic entities as morally inappropriate, or, at least, unnecessary to helping the profession meet its moral responsibility to serve the public interest.

ACCRUALS AS A DETERMINANT OF DEBT COVENANT TIGHTNESS

Troy D. Janes

Rutgers School of Business-Camden

ABSTRACT

This paper examines the use of accounting accrual information by commercial lenders in setting debt covenants. Tests of the relation between accruals and debt covenant tightness indicate that lenders do not use the information in accruals in setting debt covenants. However, further tests show that lenders extract compensation for the risk of lending to firms with extreme accruals by charging higher initial interest rates.

INTRODUCTION

This study examines whether commercial lenders use the information contained in accounting accruals in debt contracting—specifically in setting the initial level of debt covenants. This study adds to the literature on the use of accrual information by sophisticated users of accounting data. Prior studies have shown that neither investors, analysts, nor auditors completely understand the relation between accruals and firm performance (Sloan, 1996; Bradshaw, Richardson, and Sloan, 2001; Ahmed, Nainar, and Zhou, 2005; Barth and Hutton, 2001). Commercial lenders, like investors, analysts, and auditors are knowledgeable and motivated users of financial accounting information. As a group of sophisticated users of accounting information, commercial lenders may provide even more insight into the understanding and use of accruals than groups previously studied. Like investors, lenders make decisions based on financial information that put assets at risk. Unlike investors, however, commercial lenders have access to firms' internal financial records. Given the risk of losses faced by lenders and their access to borrowers' financial records, lenders have the motivation and opportunity to acquire a greater understanding of the firms they examine than other groups of accounting information users that have been studied.

This study utilizes *Dealscan*, a database of private lending agreements, to obtain detailed information on debt covenants. The use of *Dealscan* gives this study two advantages over prior studies of debt covenants. First, it allows the study of private debt contracts. Most prior studies examine public debt contracts (i.e. bonds). Because of the large number of bondholders involved in a public debt issue, renegotiating a debt contract following a debt covenant violation can be costly and difficult. Therefore, private debt agreements generally contain a greater number of debt covenants that are more likely to be the product of careful analysis than those in public debt agreements (Smith & Warner, 1979; Gopalakrishnan and Parkash, 1995). Second, since *Dealscan* provides information on the actual debt covenants, actual debt covenant tightness can be calculated. As discussed in Dichev and Skinner (2002), most existing studies on debt covenants use a measure such as total debt or debt-to-equity ratio to proxy for covenant tightness. Because these measures are noisy, studies using them are difficult to interpret (e.g. Mohrman, 1993; Ball and Foster, 1982; Leftwich, 1983). Eliminating the need to use proxies for debt covenant tightness, the results of this study are less subject to alternative interpretations.

Debt covenants are used by commercial lenders as early warning systems to signal impending financial problems among borrowers. When a covenant is violated, lenders have the option to require immediate repayment of the loan. Most of the time, however, after assessing the borrower's situation, the lender waives the violation and resets the covenant below the current level. If the borrower's performance improves, there is no further problem. If the borrower's performance continues to deteriorate, the covenant is again violated, and the lender once again has the opportunity to evaluate the borrower's performance (Smith, 1993; Chen and Wei, 1993; Gopalakrishnan and Parkash, 1995; Dichev and Skinner, 2002).

Given the role of debt covenants in warning of declining performance (which may result in financial distress), the level of debt covenants should reflect the information in accruals about financial distress. However, tests of the relation between accruals and initial debt covenant tightness yield mixed results. Controlling for earnings, debt covenants are set more tightly for firms with low accruals, as expected. However, debt covenants for borrowing firms with high accruals are not set more tightly than firms with moderate accruals. Results of additional tests indicate that although borrowing firms with extreme accruals are not subject to increased monitoring through debt covenants, they are charged higher interest rates than firms with moderate accruals. This result can be interpreted as lenders foregoing more restrictive monitoring of high accrual firms in favor of compensation for the additional risk assumed by lending to these firms.

HYPOTHESIS DEVELOPMENT

As discussed in the previous section, debt covenants are used to monitor the performance of borrowers. Although enforcement of debt covenants can vary from situation to situation, there is strong evidence that debt covenants impact firms in several ways. Core and Schrand (1999) find that firms that are close to violating debt covenants experience a greater negative stock price reaction to bad news than do firms that are not close to violating covenants. El-Gazzar (1993) finds a negative stock price reaction to the announcement of new accounting policies that may push firms closer to violating debt covenants. Finally, Beneish and Press (1993) document costs associated with the violation of positive debt covenants, referred to as technical default. Frequently, these violations can be waived or the covenant can be renegotiated, but the borrower incurs costs in doing so, ranging from the actual costs of negotiation (attorney's fees, etc.) to the addition of new covenants (Chen and Wei, 1993)

Sweeney (1994) and Dichev and Skinner (2002) find evidence that managers take actions to avoid debt covenant violations, although they are unable to determine whether such actions are cases of earnings management or "real" actions such as accessing equity, selling assets, deferring purchases, etc. Dichev and Skinner also reaffirm earlier studies that debt covenants in private contracts are used in an active monitoring role, with lenders using the covenants as an early warning system to inform them of potential problems with the borrower.

Despite the importance of debt covenants in the lending process and the subsequent operation of borrowing firms, there have been few studies on the role of accounting in debt contracts (Sloan, 2001). Existing studies that examine characteristics of debt contracts and determinants of debt covenants primarily deal with public debt (i.e. bonds). These studies focus on factors such as the industry in which the borrower operates, the number of lenders involved in syndicating the loan, leverage, profitability, and probability of bankruptcy (Malitz, 1986; El-Gazaar and Pastena, 1991; Berlin and Mester, 1992). Additionally, Berlin and Mester (1992) show that the restrictiveness of debt covenants is inversely related to the credit worthiness of the borrower. Discussions with commercial lenders confirmed that the findings of prior research are consistent with actual lending practices (Chaika, 2001; Bacevich, 2002).

Evidence discussed above and in the Introduction shows that debt covenants play a significant role in debt contracting and that lenders have ample opportunity and motivation to use all available information in setting debt covenants. Additionally, extant literature includes several studies linking high accruals to weaker future performance or signals of weaker performance (Defond and Subramanyam, 1998; Dechow, Sloan and Sweeney, 1996; Xie, 2001; Dichev and Skinner, 2002; Defond and Jambalvo, 1994). Most notably for this study, Janes (2007) documents that firms with extreme high and low accruals are more likely to experience financial distress than firms with moderate accruals. Because of the link between extreme accruals and financial distress, one would expect that the initial level of debt covenants would reflect this information. Stated formally as a testable hypothesis:

The initial level of debt covenants for firms with extreme high or extreme low accruals is set more tightly than for firms with moderate accruals.

The benchmark contained in the covenant may change over time, generally requiring improving performance by the borrower. However, because factors unrelated to the lender's analysis of the borrower (e.g. economic downturns, etc.) may affect debt covenant tightness during the term of the loan, this study focuses only on the initial tightness of the debt covenant. The results of tests of the hypothesis developed in this section are presented in the next section.

TESTS OF RELATION BETWEEN ACCRUALS AND DEBT COVENANT TIGHTNESS

Sample

Tests of the hypothesis examine whether commercial lenders appear to understand the implications of accruals for financial distress by setting debt covenants more tightly. Data for these tests is collected for firms with loans originating from 1990 to 1999. The data on loans is taken from the *Dealscan* database provided by LPC Market Access. *Dealscan* provides a database of over 50,000 loans dating back to 1986. *Dealscan* consists of loan data gathered from SEC filings, supplemented by research by LPC. The database includes information on the terms of the loan (amount, interest rate, length, etc.) as well as the covenants contained in the debt contract.

Each debt contract in the database typically has two or more parts, called facilities. For example, the loan could include a revolving loan and a term loan. Each facility can have different terms, such as different interest rates, maturity, repayment schedule, etc., but the debt covenants written into the contract generally apply to all facilities in the contract. For this study, the facility with the longest maturity is assumed to represent the loan and is considered to be the primary part of the loan. If two facilities have equal maturities, the facility with the largest principal amount is selected for inclusion in the sample.

The *Dealscan* database organizes debt covenant information into 12 positive covenants and five negative covenants. Positive covenants generally involve meeting benchmark accounting ratios, such as a minimum current ratio level, and negative covenants restrict specific actions, such as selling assets or acquiring additional debt. As discussed in Dichev and Skinner (2002), there is a great deal of variation in the definitions of the ratios used in debt covenants. For example, in an examination of *Dealscan* loans they find over a dozen different ways that the debt-to-cash flow ratio is defined in debt contracts. They find similar problems with most other commonly used covenants. Dichev and Skinner (2002) use the current ratio covenant to examine debt covenant violations because they find that it is fairly consistently defined. This allows them to calculate covenant slack using covenant data from *Dealscan* and data from the borrower's financials available from Compustat. Since this study also uses Compustat data and *Dealscan* covenant data together, the current ratio covenant is the primary subject of tests.

A sample of 1,096 loans originating from 1990-1999 was collected from the *Dealscan* database. Loans included in the sample were required to have complete data on loan amount, maturity, initial pricing of the loan (i.e. interest rate), and the initial current ratio covenant. Observations in the sample were also required to have sufficient data available on Compustat to calculate the variables used in multivariate tests. The variables will be discussed below.

Variable Measurement

Accounting-based debt covenants usually take the form of accounting ratios and are set such that the borrower must maintain a certain level of performance that indicates financial health. In the case of the current ratio covenant tested in this section, the borrower must maintain their current ratio above the minimum benchmark level specified in the debt contract. According to loan officers contacted in conjunction with this study, when the lender evaluates a potential borrower's financial health, perceived deficiencies will prompt the lender to set the initial level of the covenant more tightly (Chaika, 2001; Bacevich, 2002). Tighter debt covenants give the lender more advance warning of deterioration in the borrower's financial health. A "tight" covenant is one in which the initial benchmark level in the covenant is close to the firm's actual level of the measure at the time of loan inception. For example, consider a debt contract which contained a current ratio covenant requiring the borrower to maintain a current ratio greater than 2.0. A firm with an actual current ratio of 2.2 would have a tighter debt covenant than a firm with a current ratio of 3.0. The difference between the actual measure and the covenant benchmark is referred to as "slack." Slack at loan inception is used as the measure of covenant tightness, with lower slack indicating a tighter covenant. Initial slack is calculated as:

$$\text{Slack} = (\text{Current Ratio} - \text{Current Ratio Covenant}) / \text{Current Ratio Covenant}$$

where *Current Ratio* is the borrower's current ratio from the annual report immediately preceding the loan, calculated as current assets divided by current liabilities, and *Current Ratio Covenant* is the initial minimum current ratio required in the debt contract

In multivariate tests, several variables shown by prior research to be determinants of debt covenant tightness are included as control variables. These variables include the Investment Opportunity Set of the borrower (Smith and Warner, 1978; Skinner, 1993), the Term (i.e. duration) of the loan (El-Gazaar and Pastena, 1991; Malitz, 1986; Berlin and Mester, 1992), the indebtedness of the borrower (Debt) prior to acquiring new debt (El-Gazaar and Pastena, 1991), the size of the borrower (Firm Size) as measured by the log of total assets, and the amount being borrowed (El-Gazaar and Pastena, 1991). Finally, to separate the effects of low and high accruals, I use indicator variables for low and high accruals, with High Accruals being set equal to one for borrowing firms in the highest quintile of total accruals, and Low Accruals being set equal to one for borrowing firms in the lowest quintile of total accruals. Since prior research has shown that firms with extreme high and low accruals are more likely to experience financial distress (Janes, 2007), the signs of the coefficients on High Accruals and Low Accruals are predicted to be positive.

Tests of the Relation between Accruals and Debt Covenant Tightness

Janes (2007) documents that the relation between the level of accruals and financial distress is non-linear, with high and low accruals being associated with a greater incidence of financial distress than moderate levels of accruals. To test whether this relation holds in the sample of firms with current ratio debt covenants, the debt covenant sample has been divided into quintile portfolios based on the level of total accruals reported in the annual report preceding the loan closing.

Evidence about the information provided by accruals can be gathered by examining the occurrence of financial distress among borrowing firms in the sample. Following Janes (2007), Dichev (1998) and Shumway (1996), financial distress is indicated by a CRSP delisting code showing delisting for financial reasons. The time period examined is the four years following loan inception—again, the intent is to look at what happens during the average loan term, which is slightly over three years.

Figure 1. Financially Distressed Firms by Portfolio Formed on Total Accruals

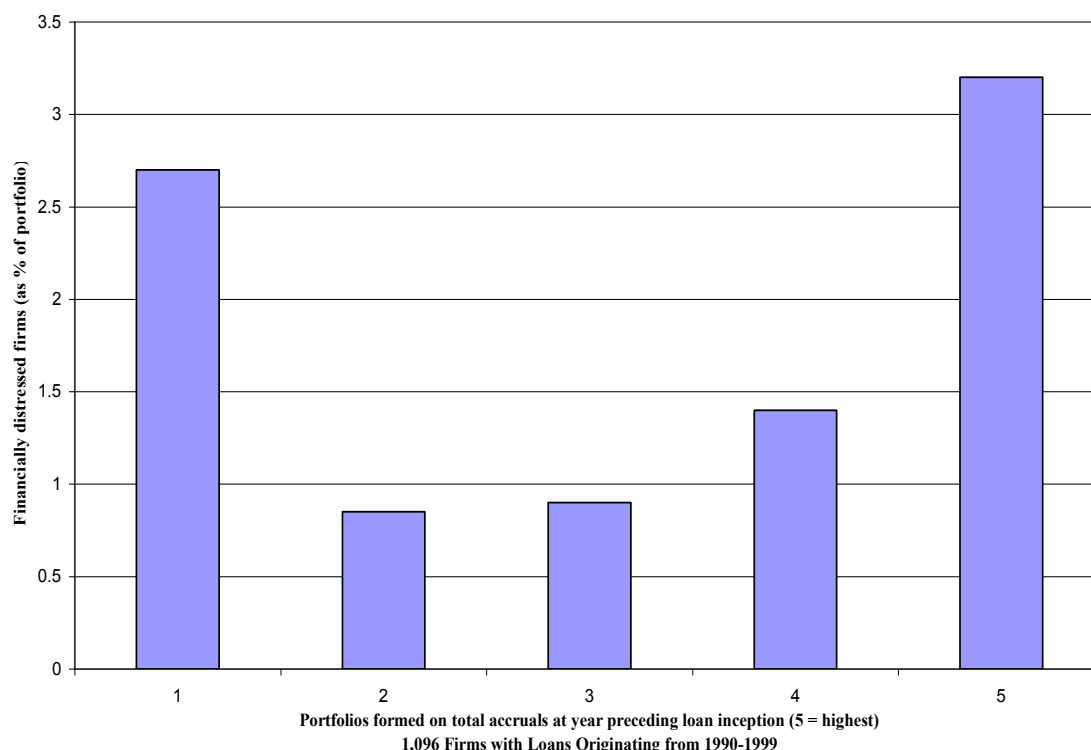


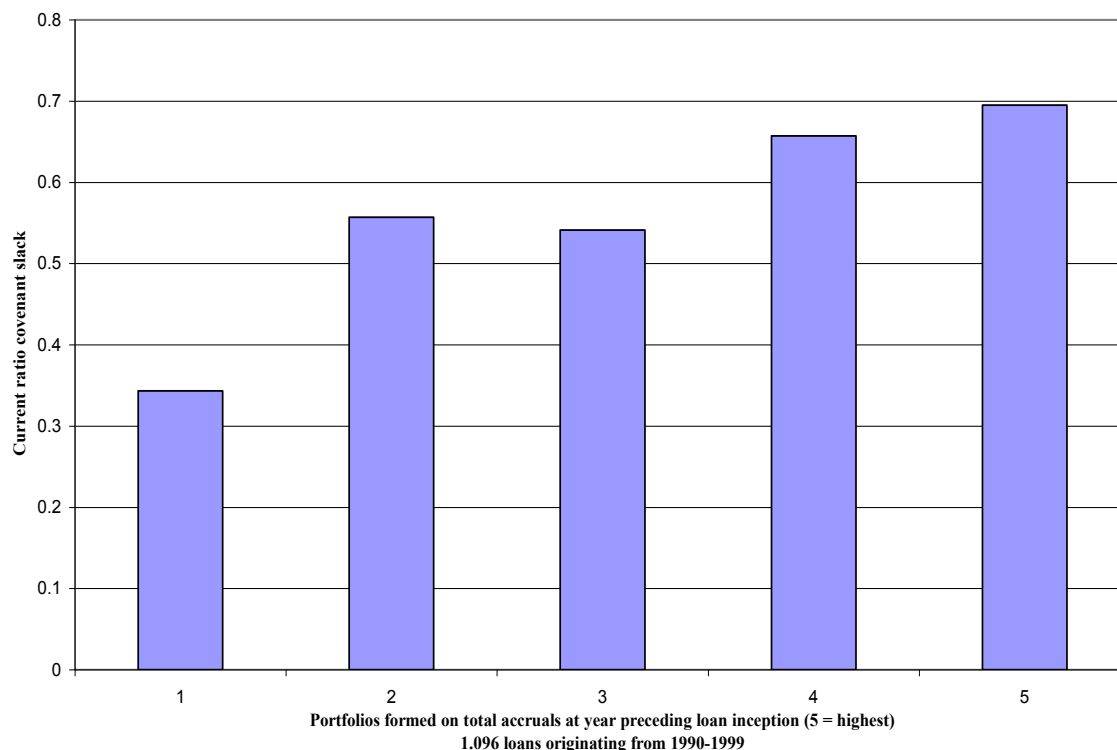
Figure 1 graphically depicts the occurrence of financial distress in portfolios formed on total accruals and shows that, consistent with prior research (Janes, 2007), the occurrence of financial distress is much greater in the high and low accrual portfolios (Portfolios 5 and 1, respectively), with over 3% of firms in Portfolio 5 and over 2.5% of firms in Portfolio 1 experiencing distress during the average loan period. Compare this with the incidence of distress in Portfolios 2 through 4, which is less than 1% in Portfolios 2 and 3 and a little over 1% in Portfolio 4. Untabulated t-statistics show that the difference between Portfolio 5 and Portfolios 2, 3, and 4 is statistically significant at the 1% level or better. The same holds for the difference between Portfolio 1 and Portfolios 2, 3, and 4.

As a robustness test, I also formed portfolios on total accruals while holding earnings constant. Following Dechow and Dichev (2002), the sample was sorted into decile portfolios based on the level of earnings. Then, each earnings decile was sorted into quintile portfolios based on the level of total accruals. Portfolios were then formed by pooling the subportfolios formed in each decile. The final result is five portfolios based on total accruals while controlling for earnings. Portfolio 5 is comprised of the highest quintile of total accruals in each earnings decile; Portfolio 1 is comprised of the lowest quintile of total accruals in each earnings decile, and so on. The result (not tabulated) is that the difference between extreme and moderate accrual portfolios is not as pronounced in Figure 1, but it is still statistically significant. The results presented in Figure 1 and the related robustness test indicate that high accrual firms underperform other firms during the years following loan inception, and firms with high accruals

and firms with low accruals at loan inception encounter financial trouble at greater rates than firms with moderate accruals. Taken together, these results lead one to expect that firms with extreme accruals would be subject to greater monitoring by lenders.

Figure 2 depicts data about the initial tightness of current ratio debt covenants in the sample. Firms in Portfolio 5 enjoy the highest initial level of current ratio covenant slack among the quintile portfolios. Figure 2 shows that slack increases monotonically from a low of 0.343 in Portfolio 1 to 0.695 in Portfolio 5. As done previously, portfolios were formed on total accruals, holding earnings constant as a robustness test. The results are not presented in a figure, but again, the firms in Portfolio 5 receive the highest initial level of current ratio covenant slack among the quintile portfolios, with slack levels ranging from 0.421 in Portfolio 1 to 0.730 in Portfolio 5.

Figure 2. Current Ratio Covenant Slack by Portfolio Formed on Total Accruals



Univariate tests of the debt covenant sample presented in Figure 2 indicate that, contrary to expectations, firms with high accruals have looser debt covenants. Table 1 presents the results of multivariate tests of the relation between accruals and covenant slack. Model 1 shows the results of including the High Accruals and Low Accruals indicator variables in a regression of debt covenant slack on earnings. The coefficient on Earnings is 0.567, which is significant at the 1% level, indicating a positive relation between earnings and slack. The coefficient on Low Accruals is -0.140 , which is statistically significant at the 5% level, which shows that low accruals are associated with lower initial slack in the current ratio covenant. The coefficient on High Accruals (0.102) indicates that high accruals are associated with higher levels of initial slack in the current ratio covenant. However, this coefficient is not statistically significant. The results of this test indicate that, while lenders correctly associate low accruals with greater risk of financial distress, they do not make the same association with high accruals.

Model 2 is the same regression model but includes the control variables--other factors that have been shown to affect debt covenant slack. In Model 2, the coefficient on earnings (0.303) is still positive, but no longer statistically significant. The coefficient on Low Accruals (-0.136) remains significantly negative, and the coefficient on High Accruals (0.013) remains statistically insignificant. Of the control variables, only Investment Opportunity Set and Debt have significant coefficients. The coefficient of 0.061 on Investment Opportunity Set indicates that greater investment opportunities are associated with higher slack. The sign on this variable was predicted to be negative using the reasoning that more investment opportunities were associated with greater opportunities to shift risk to the lender. However, it appears from this result that lenders may value the borrower's opportunities to invest in many projects more than they fear any additional risk the increase in investment opportunity may bring. The

Table 1. *Regression of Current Ratio Covenant Slack on Accrual Information*

coefficient on Debt is also significant. The coefficient of -0.857 indicates that borrowers with higher ex ante debt levels are subjected to a greater level of monitoring.

Tests of the Relation between Accruals and Initial Loan Pricing

Dichev, et al (2004) examines the use of performance pricing in recent debt contracts. Performance pricing allows the interest rate on a loan to fluctuate with changes in the borrower's financial health. Dichev, et al (2004) finds that performance pricing and covenants are complements rather than substitutes, particularly when measured over the same variable (e.g. a debt contract that includes performance pricing based on debt-to-EBITDA as well as a covenant requiring the firm to maintain the a minimum level of the same ratio). They conclude that performance pricing addresses improvements in firm health (or credit risk), whereas, debt covenants are used to monitor for declines in firm health. While it is beyond the scope of this paper to examine the relation between performance pricing and debt covenant slack, the existence of performance pricing suggests that lenders may use the pricing of the loan to compensate for increased riskiness of the borrowing firm. To examine this possibility, I look at the relation between the initial pricing of the loan and total accruals.

The dependent variable in each model is the level of initial slack in the current ratio debt covenant contained in the loan. Slack is calculated as $[(\text{Current Ratio} - \text{Current Ratio Covenant}) / \text{Current Ratio Covenant}]$. Independent variable definitions are as follows: Earnings is net income of the borrowing firm; Total Accruals is calculated as net income minus cash from operations; Low and High Accruals are indicator variables equal to one if the borrowing firm's total accruals are in the lowest or highest quintile portfolio, respectively; Investment Opp. Set is calculated as $[(\text{book value of equity} + \text{book value of debt} + \text{book value of preferred stock}) / \text{total assets}]$; Term is the length of the loan term in months; Debt is the total indebtedness of borrowing firm; Firm Size is equal to total assets of the borrowing firm; and Loan Size is the dollar amount of the loan scaled by total assets of borrowing firm. All financial statement variables are measured at the year end preceding loan inception and are scaled by total assets except for Firm Size, which is unscaled. Loan data was obtained from Dealscan. All other data was obtained from Compustat. Sample consists of 1,096 loans from the period 1990-1999.

Variable	Predicted Sign	Model 1			Model 2		
		Coef.	t stat		Coef.	t stat	
Intercept	+	0.604	17.49	***	0.867	8.01	***
Earnings	+	0.567	2.7	**	0.303	1.46	
Low Accruals	-	-0.14	-1.96	*	-0.136	-1.97	*
High Accruals	-	0.102	1.49		0.013	0.20	
Investment Opp. Set	-				0.061	4.81	***
Term	?				-0.001	-0.04	
Debt	-				-0.857	-6.42	***
Firm Size	+				-0.022	-1.07	
Loan Size	-				-0.019	1.00	
Adjusted R-squared		0.022			0.107		

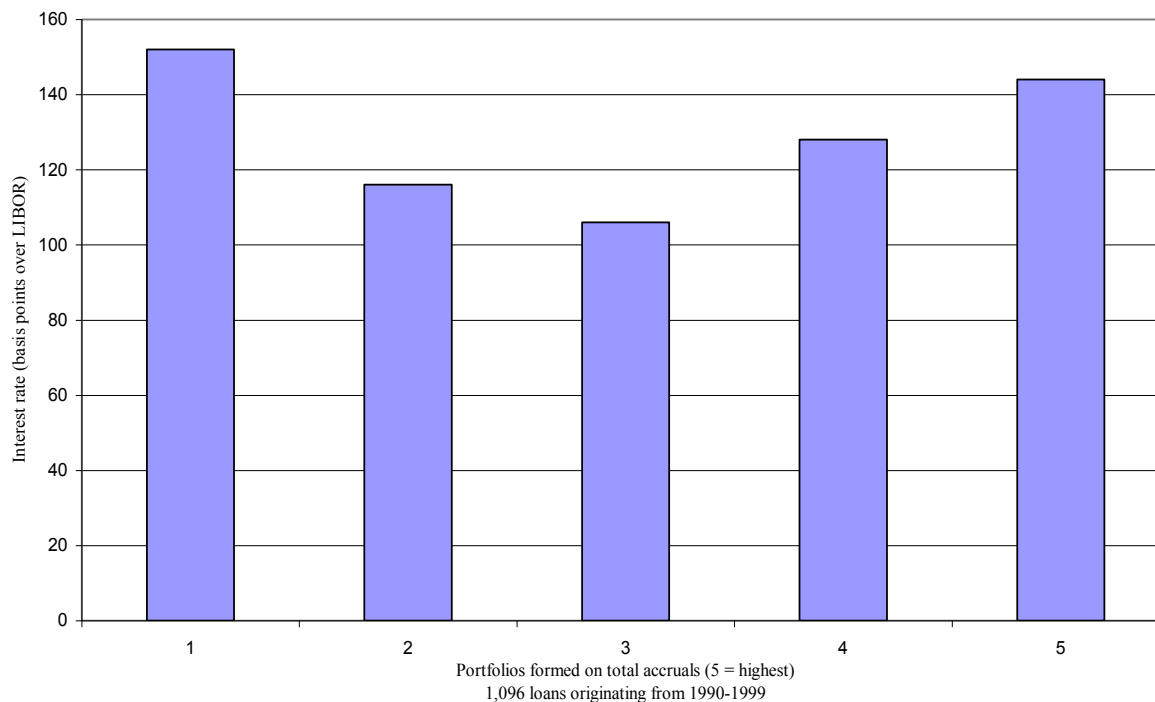
***, **, * Significant at <0.01, 0.01, 0.05 levels, respectively.

Initial interest rate data was collected from *Dealscan* for each loan in the sample, with interest rates stated in basis points over LIBOR. Figure 3 depicts the results of a univariate test of initial interest rates. Mean initial interest rates are depicted for portfolios formed on total accruals at loan inception. The U-shaped pattern observed in the relation between total accruals and financial distress is once again present in the relation between total accruals and the initial interest rate charged on loans, indicating that firms with extreme accruals are charged a higher initial rate on loans. Mean initial interest rates in Portfolio 5 are approximately 145 basis points over LIBOR, and mean rates in Portfolio 1 are approximately 152 basis points over LIBOR. Rates in the moderate accrual portfolios are 117, 110 and 128 basis points over LIBOR in Portfolios 2, 3, and 4, respectively. This result is consistent with Bharath, et al (2008), which

finds that borrowers with low accounting quality, measured by discretionary accruals, are subject to higher interest rates.

Table 2 presents the results of multivariate tests of the relation between accruals and loan pricing. In Table 2, the same regression models presented in Table 1 are shown with the dependent variable being the initial interest rate in basis points over LIBOR. Regression results in Model 1 of Panel A shows that the coefficients on both Low Accruals and High Accruals are significantly positive, indicating that firms with extreme accruals pay higher initial interest rates than do firms with moderate accruals. The result is the same when control variables are included.

Figure 3. Mean Interest Rate at Loan Inception in Portfolios Formed on Total Accruals



Summary of Tests

This section examines whether lenders appear to use the information in accruals about financial distress when setting the initial tightness of debt covenants. A sample of 1,096 loans originating in the period 1990-1999 was examined and divided into portfolios based on total accruals at loan inception. Univariate tests show that firms with high accruals underperformed other firms in the sample in the years following loan inception, and that both firms with high and low accruals experience significantly greater occurrences of financial distress than do sample firms with moderate accruals. These findings and the findings of prior literature on accruals create the expectation that firms with extreme accruals would be subject to increased monitoring in the form of tighter debt covenants—or in this case, the current ratio covenant. Contrary to this expectation, univariate tests show that there is a negative relation between accruals and current ratio debt covenant tightness, with high accrual firms receiving more slack in the initial level debt covenant than other firms. Multivariate tests show that, although low accrual firms are subject to tighter debt covenants, there is no relation between high accrual firms and debt covenant tightness. Finally, univariate and multivariate tests of the relation between initial loan pricing and accruals indicate that firms with extreme accruals are initially charged higher interest rates on loans. This finding suggests that, although lenders

either intentionally or unintentionally fail to increase monitoring for firms with extreme accruals, the lenders may extract compensation for the added risk by charging higher interest rates.

CONCLUSION

This paper examines whether commercial lenders use the information in accruals about financial distress in setting the initial tightness of debt covenants. Debt covenants are a mechanism used by lenders to monitor the financial health of borrowers so that financial problems can be addressed before repayment of the loan is in jeopardy. Because of the monitoring role of debt covenants and because lenders are sophisticated users of financial data, it is anticipated that the information in accruals about financial distress would be reflected in debt covenant tightness. In tests of this relation, results show that firms with extreme low accruals do have more restrictive current ratio debt covenants than other firms. Univariate tests show that firms with high accruals actually have less restrictive current ratio debt covenants than firms with moderate accruals. Results of multivariate tests, however, show that there is no relation between high accruals and debt covenant restrictiveness. Additional tests show that borrowing firms with extreme accruals are subject to higher interest rates than firms with moderate accruals. This result can be interpreted as lenders foregoing more restrictive monitoring of high accrual firms in favor of additional compensation for the additional risk assumed by lending to firms with high accruals. This finding contributes to the literature on the understanding and use of accruals by sophisticated users of financial information by showing that the information in extreme accruals about financial distress is not reflected in debt covenants set by commercial lenders, either by design or not; however it is reflected in loan pricing.

Table 2. *Regression of Initial Interest Rate on Accrual Information*

The dependent variable in each model is the initial interest rate on the loan. Interest rates are stated in basis points over LIBOR. Independent variable definitions are as follows: Earnings is net income of the borrowing firm; Total Accruals is calculated as net income minus cash from operations; Low and High Accruals are indicator variables equal to one if the borrowing firm's total accruals are in the lowest or highest quintile portfolio, respectively; Investment Opp. Set is calculated as [(book value of equity + book value of debt + book value of preferred stock)/total assets]; Term is the length of the loan term in months; Debt is the total indebtedness of borrowing firm; Firm Size is equal to total assets of the borrowing firm; and Loan Size is the dollar amount of the loan scaled by total assets of borrowing firm. All financial statement variables are measured at the year end preceding loan inception and are scaled by total assets except for Firm Size, which is unscaled. Loan data was obtained from Dealscan. All other data was obtained from Compustat. Sample consists of 1,096 loans from the period 1990-1999.

Variable	Predicted	Model 1			Model 2		
	Sign	Coef.	t stat		Coef.	t stat	
Intercept	+	123.578	30.28	***	122.070	9.11	***
Earnings	-	-6.681	-0.27		-12.401	-0.48	
Low Accruals	+	26.658	3.14	**	26.701	3.14	**
High Accruals	+	21.769	2.70	**	21.623	2.63	**
Investment Opp. Set	+				0.667	0.42	
Term	?				-0.139	-1.35	
Debt	-				-12.000	-0.73	***
Firm Size	-				2.222	0.86	

Loan Size	-	-2.508	-1.08	**
Adjusted R-squared	0.014	0.013		

***, **, * Significant at <0.01, 0.01, 0.05 levels, respectively.

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CONSUMER ANGER: CAUSES AND CONSEQUENCES

Venessa Funches

Auburn University at Montgomery

ABSTRACT

Consumer anger can cause consumers to behave in ways that damage the firm relationship. This research utilized the critical incident technique to identify three causes of consumer anger, broken promises, unfair treatment, and expressed hostility and to highlight specific situational factors present in those incidents. The results showed that consumer anger does have an impact on consumer behavioral decisions. Consumer responses covered a broad range of behaviors with significant consequences for firms. These responses fell into three categories: corrective, retaliatory, and preventative. The research also identified a real desire on the part of angry consumers to want to punish firms for the anger evoking incidents. The research also uncovered that even consumers who decided to continue their firm relationships levied stiff consequences for anger evoking incidents.

INTRODUCTION

Consumer anger experiences are pivotal moments in consumer-provider relationships. It is necessary to understand the role consumer anger plays in consumers' decisions to continue or terminate relationships with firms. This research explores the causes of one particular emotion, consumer anger, and its effects on consumer behavioral responses. This research builds on existing literature in three key ways. First, this research takes an emotion specificity approach by examining the role of one negative emotion—anger and its impact on consumer behavioral responses. Second, this research explores the causes of consumer anger in detail. Many researchers have suggested one broad cause of anger. While the proposed causes of anger are generally accepted, their broad nature does not lend itself to actionable steps by managers. As a result, this research sought to uncover specific situational causes of consumer anger. Third, this research explored the entire range of behavioral consequences for consumer anger. Many researchers have examined the impact of anger on consumer decisions to complain, switch providers, and engage in word-of-mouth. However, these behaviors do not represent the total range of options available to angry consumers.

The purpose of this research was to explore the consumer anger phenomena. This research utilized the critical incident technique to answer the following research questions about the causes and consequences of consumer anger resulting from service encounters.

- ◆What are the causes of consumer anger?
- ◆What specific situational elements are prevalent in consumer anger episodes?
- ◆How do consumers respond to anger evoking incidents?

METHOD

This research sought to provide an understanding of the typical causes of consumer anger and the consequences which stem from these incidents. Forty-eight IRB trained undergraduate marketing students were used to recruit non-student participants to complete the online survey. First, respondents were asked to describe an incident with a service provider which left them angry. Second, they were asked to explain their decision to either complain or not. Third, respondents were asked if they decided to terminate their relationship as a result of the incident and what actions they took as a result of the anger evoking incident.

A total of 259 critical incidents were analyzed and categorized. The majority of the sample was female (65.6%) and between the ages of 19 and 54 (91%). In addition, the sample was mostly Caucasian (91%). The sample was fairly well-educated with a majority (90%) of sample reporting at least some college education. The incidents described by respondents covered a variety of service contexts.

RESULTS

This research examined the causes of consumer anger across many retail contexts and identified three causes, broken promises (60%), unfairness (27%), and expressed hostility (12%) which frequently provoked anger incidents. Each of the causes stems from service providers inability to deliver on the promises made.

In order to address the second research question, each of the three causes was divided into subcategories. First, the broken promises category was subcategorized into situations involving poor service, employee mistakes, and unresponsiveness. Next, the reviews of the unfair treatment category lead to the creation of several subcategories that tended to involve excessive wait times, repetitive or merry-go-round processes, and poor firm policies. The expressed hostility category was further subcategorized into incidents involving rudeness or unprofessional behavior on the part of firm employees.

The third research question involved how consumers chose to respond to anger evoking incidents. Consumers have wide range of response behaviors at their disposal. The results of this study have consumer behavioral responses separated into three categories: corrective, retaliatory, and preventative that represent the broad range of consumer anger consequences.

The corrective category is best illustrated by complaint behaviors, switching behaviors, and reductions in patronage. These behaviors were termed corrective because they communicate either directly or indirectly problems to management. A significant number of the total sample (60.6%) reported engaging in complaint behaviors after their consumer anger experience. Typically consumers complain in order to give the firm an opportunity to correct the situation. Consumer anger incidents resulted in 43% of the total sample deciding to no longer do business with the offending firm. This represents a considerable loss of business for the service provider. Of those who decided to continue doing business with the firm, 35.4% reduced their patronage with the service provider. These behaviors represent typical and expected consequences of angering consumers.

The retaliatory category contains various examples of negative consumer behavior towards firms. Consumers engage in such behaviors to punish firms for misdeeds of which the firm may not even be aware. These behaviors range from appropriate behaviors driven by malice for the firm all the way to inappropriate and occasionally criminal behaviors. Of those consumers who decided to engage in these behaviors, negative word-of-mouth was the most frequently reported (34%). Respondents said they 'told many people to hurt the firm.' Of the total sample (39.4%) chose not to complain after their anger experience because they did not want to help the offending firms. These respondents actively chose to withhold this behavior in hopes of indirectly harming the firm. Some respondents (22%) reported harboring grudges against the firms and refusing to forgive past wrongs. Respondents' willingness to engage in retaliatory behaviors indicated that these anger evoking incidents had damaged previously healthy and profitable consumer-firm relationships.

The preventative category is comprised of behaviors primarily aimed at protecting the consumer from future anger evoking incidents. This research shows many respondents (57%) decided to continue their relationship with their service provider. Traditionally, managers have considered consumers who continued their relationships after negative service encounters success stories. The results of this research demonstrate that even consumers who decided to continue their relationship levied stiff consequences against anger evoking firms. Some respondents (12%) stopped shopping for certain products or services. Respondents also reported altering their behavior by either changing locations or avoiding certain employees (35%). These consequences are damaging for the service provider for two reasons. One, these problematic results are harder for the service provider to detect. Two, preventative behaviors can lower the provider's standing in the consumer's choice set and allow competing firms an opportunity to move up that they may not have had before.

CONTRIBUTIONS

One of the key contributions of this research is that it uses a cross-industry perspective of actual consumer experiences to uncover the three main causes for consumer anger. Also, specific situational elements were identified. An additional contribution of this research is its exploration of the entire range of consumer responses to anger. The identification of a real desire on the part of consumers to "hurt or punish" the service provider for wrongs committed is another contribution of this research. The findings of this research suggest consumers employ multiple ways of punishing offending firms in addition to switching behavior.

LIMITATIONS & FUTURE RESEARCH SUGGESTIONS

The critical incident approach provided a good starting point for consumer anger research; subsequent research could employ an experimental design method in order to further examine some of the key factors highlighted in this study. The use of a student recruited sample represents an additional limitation of this study. Later studies could examine the effects of different types of loyalty on the relationship between consumer anger and behavioral responses. The effect that anger has on subsequent purchase decisions may be altered depending on the type of loyalty consumers' express. This represents an important aspect of the consumer anger phenomena that warrants further attention.

HOW ARE ELECTRONIC MARKETPLACES DIFFERENT AMONG INDUSTRY SECTORS?

Dothang Truong

Fayetteville State University

ABSTRACT

Electronic marketplaces have been studied from many different perspectives. However, its role in the economy has not received adequate attention. This research paper addresses two major questions: 1) What are the differences among industry sectors in using electronic marketplaces; 2) How ready are companies in each industry sector to using electronic marketplaces. An empirical data was collected in the America and some statistical analysis has been done to answer those questions. The findings and discussions are provided as well.

INTRODUCTION

In the current troubled economy with the falling of many big corporations, most of the surviving businesses are seeking the way to increase the efficiency and effectiveness of their business performance. Electronic marketplaces have been perceived as a platform that can provide such benefits (Rao et al., 2007; Truong, 2008). Nevertheless, the low acceptance rate (about 33 percent) of electronic marketplaces by companies at different level indicates the hesitancy of the market to the use of electronic marketplaces (Truong and Jitpaiboon, 2007). Many studies have been conducted to examine the benefits and challenges of electronic marketplaces from various perspectives. Overall, electronic marketplaces can benefit the company participants from two major dimensions: market aggregation and supply chain collaboration. The major risks come from the trust barriers between trading partners and the financial and technical requirements. The literature also emphasizes that electronic marketplaces are not a homogenous platform, but they have different categories that may have distinctive impacts of different participants.

Although the current studies have major contributions to the literature of electronic marketplaces both from supply chain management and marketing perspective, they fail to justify the low acceptance rate of electronic marketplaces. Electronic marketplaces have been evolving and overcoming their disadvantages, but companies still hesitate to use this platform. As the economy gets worse and many big corporations are looking for the way to cut costs, it is important to examine how different industry sectors react to the advent of electronic marketplaces. The survey conducted by Forester Research (2000) did indicate that some industry sectors (such as electronic or communication) accepted electronic marketplaces at higher rate than others. However, this survey did not get into the bottom of the situation and did not show what factors of electronic marketplaces are favorable or non-favorable to each industry sectors. It also did not show how ready companies in each sector were to adjusting to the era of electronic trading.

These discussions lead to some major research questions: 1) What are the differences among industry sectors in using electronic marketplaces; 2) How ready are companies in each industry sector to using electronic marketplaces. The answers for those research questions will provide more insights about the role of one of the most useful, but controversial, electronic platform in our economy in the beginning of this century. This research also has some practical implications as it will enable companies in different industry sectors to reevaluate the values of electronic marketplaces and decide whether electronic marketplaces will be the solution for their efficiency issues, and if yes, what types of electronic marketplaces will be suitable for them.

The research is constructed as follows. First, the background of electronic marketplaces, categories, and literature review of their benefits and challenges will be provided. Then, the research hypotheses will be proposed. Next, the research methodology will be described along with the data collection process. The results of the hypothesis testing will be shown with the discussions. Finally, the conclusions are discussed with research implications, limitation, and future research.

BACKGROUND OF ELECTRONIC MARKETPLACES

Introduction to Electronic Marketplaces

Electronic marketplaces can be defined as an inter-organizational platform that enables companies to exchange business information, and complete transactions thru the Internet (Bakos, 1991, Malone et al., 1987). Key players of electronic marketplaces are market makers, suppliers, and buyers. When companies use electronic marketplaces, all

activities in the entire supply chain process including searching for trading partners, request for proposal, request for quotes, searching of products and prices, ordering and replenishment, transportation, payment, shipment and inventory tracking, exchange of information, and communication between trading partners will be done online. Accordingly, a significant amount of time and money will be saved through using this platform. Electronic marketplaces are important players in several industries because they promise to greatly improve economic efficiency, reduce margins between price and cost, and speed up complicated business deals. The services they provide will expand many companies' purchasing and selling abilities, and will make prices more dynamic and responsive to economic conditions (Feldman, 2000).

Electronic marketplaces can be categorized into three major types (Le, 2005; Truong, 2008):

1. Third Party Exchange (3PX): This is a many-to-many electronic marketplace which plays the role of an independent organization that connects buyers and sellers thru their electronic trading platform. This type of electronic marketplaces usually does not require high start-up cost or high level of information technology readiness. However, it does not provide a high level of collaboration between business partners and the security issue and trust barrier is one of participants' main concerns (Le, 2005; Truong, 2008).
2. Industry Sponsored Market (ISM): This is a some-to-many electronic marketplace which established by dominant companies in a specific industry such as automotive, chemical, or electronic industries. Participants can benefit from the high level of collaboration with business partners thru ISM's secured and sophisticated network. On the other side, it is more expensive to set up and requires participants to meet certain technical requirements and pay high membership as well as trading fees.
3. Private Trading Network (PTN): This is a one-to-many electronic marketplace which usually is set up by a dominant buyer or seller. This marketplace helps connect this buyer/seller to all business partners and allow them to complete all trading online. This is the most secured and advanced network which provide the highest level of collaboration between the dominant company and business partners. However, this type of electronic marketplace is limited only to large companies with strong financial and technical resources.

Electronic Marketplaces and Their Role in the Economy

In the current economic downturn, many industries experienced the difficulties in their business. In the most recent report in February 2009, Institute for Supply Management (ISM) surveyed eighteen manufacturing industries (Primary Metals; Wood Products; Electrical Equipment, Appliances & Components; Furniture & Related Products; Paper Products; Textile Mills; Fabricated Metal Products; Nonmetallic Mineral Products; Miscellaneous Manufacturing; Plastics & Rubber Products; Chemical Products; Machinery; Transportation Equipment; Computer & Electronic Products; Petroleum & Coal Products; Printing & Related Support Activities; Apparel, Leather & Allied Products; and Food, Beverage & Tobacco Products). None of them reported growth. Some typical responses from industries about this downturn include: "Customers across the board are being very cautious about ordering any stock." (Transportation Equipment); "Business is very slow, some of which is due to seasonality, and some is due to the state of the economy." (Chemical Products); "Asia previously was over 50 percent of our business and is now close to zero." (Machinery); "Still seeing frequent attempts at increases while everything is reacting to an economy that is retracting." (Food, Beverage & Tobacco Products); "Business slightly improved in February. May be the result of inventories finally coming into balance with lower demand." (Paper Products) (ISM Report, 2009).

Electronic marketplaces may be one of the solutions for our troubled economy. The advent of electronic marketplaces apparently has changed the market in term of search, price discovery, and trade settlement (Lee and Clark, 1996). Some forms or electronic marketplaces such as electronic brokerage and electronic auction are considered as alternative market structure which has higher efficiency and lower transactional costs. Electronic marketplaces

Using the Internet platform electronic marketplaces posses some substantial benefits for participants. Many studies have been done to establish and verify the value generation model for electronic marketplaces. Old studies used the economics theory to explain the capability of electronic marketplaces to reduce the trading costs, search costs, and increase the access to the trading partners' database. Some more recent studies have emphasized the benefits of electronic marketplaces from the supply chain collaboration perspective. Le (2002) has analyzed the pros and cons of those studies and recommended two dimensions for the value proposition of electronic marketplaces: market aggregation and supply chain collaboration. These dimensions have been empirically tested in the study by Rao et al. (2007). Market aggregation refers to usefulness of electronic marketplaces in overcoming market fragmentation, thus offering buyers more choices, more readily available information about product and suppliers, transparent prices, and lower transaction costs. Supply chain integration refers to the usefulness of the electronic

marketplaces that enables market participants to build and deepen their business relationships for the purposes of improving individual business processes and overall supply chain performance.

On the other side, companies have to face some potential challenges of electronic marketplaces. Rao et al. (2007) proposed two major risks of using electronic marketplaces for business trading: financial risks and trust barriers. Financial risks refer to costs including initial development investments and recurring operating expenses. Trust barriers refer to constraints due to the uncertainties in safeguarding sensitive business information and in dealing with unknown business partners.

In regard to B2B e-business adoption, Forrester Research (2000) reported eight industries that represent different levels of penetration for B2B e-business in general. The sectors were electronic and other electrical products, and communication industries at the higher end, and food and kinked products, and printing and publishing industries at the lower end. In order to analyze the differences among industries with respect to using electronic marketplaces, we focus on these eight industry sectors: Food, Paper, Printing & Publishing, Rubber and Plastic, Fabricated Metal, Electronics, Transportation, and Communication.

RESEARCH QUESTIONS

Question 1: Are there significant differences in regard to electronic market usage among industry sectors?

Question 2: Are there significant differences in regard to the level of e-readiness among industry sectors?

RESEARCH METHODOLOGIES

Data Collection: Web-Based Survey

In order to answer the research questions, a large-scale survey was conducted. Item-classification for e-market benefits and challenges were generated through the literature on the Internet adoption, e-procurement, and e-market. These proposed measurement scales were then used in the large-scale survey instrument. The data for this study was collected through a Web-based survey in the United States. A mailing list was provided by The Institute for Supply Management, and the survey received 359 responses.

Measurement instruments

Research hypotheses involve two major measurement instruments: electronic marketplace usage and e-readiness. The level of electronic marketplace usage can be measured by a single item which evaluates the current level of usage using 5-point Likert scale. In order to examine the usage from various perspectives, we measure the usage level of three types of electronic marketplaces: 3PXs, ISMs, and PTNs. As for the level of e-readiness, we use the measurement instruments developed by Truong (2008). These instruments measure e-readiness from three dimensions: information technology usage, Internet usage, and information system usage for supply chain management. These instruments have been tested by the factor analysis.

THE IMPACT OF TOYS RECALL ANNOUNCEMENTS ON MARKET RETURNS

E. M. Ekanayake

Bethune-Cookman University

Renee Forbes

Bethune-Cookman University

Sunando Sengupta

Bowie State University

Azene Zenebe

Bowie State University

ABSTRACT

The purpose of this study is to examine empirically the impact of product recall announcements on security prices. We will measure the stock price reaction to recent product recall announcements of some selected firms by examining the abnormal returns associated with these announcements. The sample for this study is based on toy recall announcements and respective stock price reactions between January 1982 and December 2007. Event study methodology common to financial research will be used to calculate the cumulative abnormal returns over a 10-day event window that included the 10 days prior to, the day of, and the 10 days following the announcement. The results of the study show that the market reaction to toy recall announcements is associated with significant shareholder losses.

INTRODUCTION AND METHODOLOGY

The purpose of this study is to examine empirically the impact of toy recall announcements on security prices of a sample of 84 firms over the years 1982-2007. There has been a significant increase in toy recalls in recent years (see Figure 1). Similar to prior studies on product recalls, this paper examines the stock price reaction to recent product recall announcements of some selected firms by examining the abnormal returns associated with these announcements, using an event-study framework. This paper considers toy recalls between 1982 and 2007 for major toy manufacturing companies in the United States as reported in the U.S. Consumer Product Safety Commission (CPSC) database.

The recall of a defected product from the market represents the failure of a manufacturer in delivering the promised level of quality. As Hendricks and Singhal (2003) point out, products recalls may affect firms' performance and the net cash flows. Product recalls have been extensively examined in the literature with researchers finding that such actions are typically damaging for shareholder value. For example, Jarrell and Peltzman (1985), Hoffer et al. (1987) and Barber and Darrough (1996) all find significant shareholder losses surrounding automotive recall announcements while Pruitt and Peterson (1986) and Davidson and Worrell (1992) have similar findings for non-automotive recall announcements. However, Hoffer et al. (1988) and Jarrell and Peltzman (1985) find insignificant shareholder returns surrounding automotive recall announcements.

This study employs a standard event study methodology and we fit a standard market model to measure normal performance:

$$R_{it} = \alpha + \beta R_{mt} + \varepsilon_{it} \quad \text{where } E(\varepsilon_{it}) = 0 \quad \text{and} \quad \text{var}(\varepsilon_{it}) = \sigma_{\varepsilon_{it}}^2 \quad (1)$$

The regression coefficients α and β are estimated in an ordinary least squares (OLS) regression during the estimation period one year (255 trading days) prior to the event period (event days -300 through -46). The event period consists of 61 trading days centered on the product recall announcement event (-30 through +30). We define four event windows based on the event date, [-30, -2], [-1, 0], [+1, +2] and [+3, +30]. As proxy for the return for the market portfolio R_{mt} , both the CRSP value weighted index and the CRSP equal weighted index is used. Under standard assumptions, OLS is a consistent estimation procedure for the market model parameters.

The data sets to be analyzed are the daily stock prices of 84 companies. The data cover a period of twenty one years from January 1982 to December 2007. During the 26-year period from 1982 to 2007, the U.S. Consumer

Product Safety Commission (CPSC) published 675 toy recalls. To isolate the equity responses to the recall announcements, 580 companies were eliminated since they were not publicly traded companies. Of the 95 companies selected another 11 companies were eliminated due to unusable data giving us a sample of 84 companies.

Daily stock price and number of shares outstanding data come from the Center for Research in Security Prices (CRSP) at the University of Chicago. We used the CRSP daily returns data from EVENTUS software in Wharton Research Database Service.

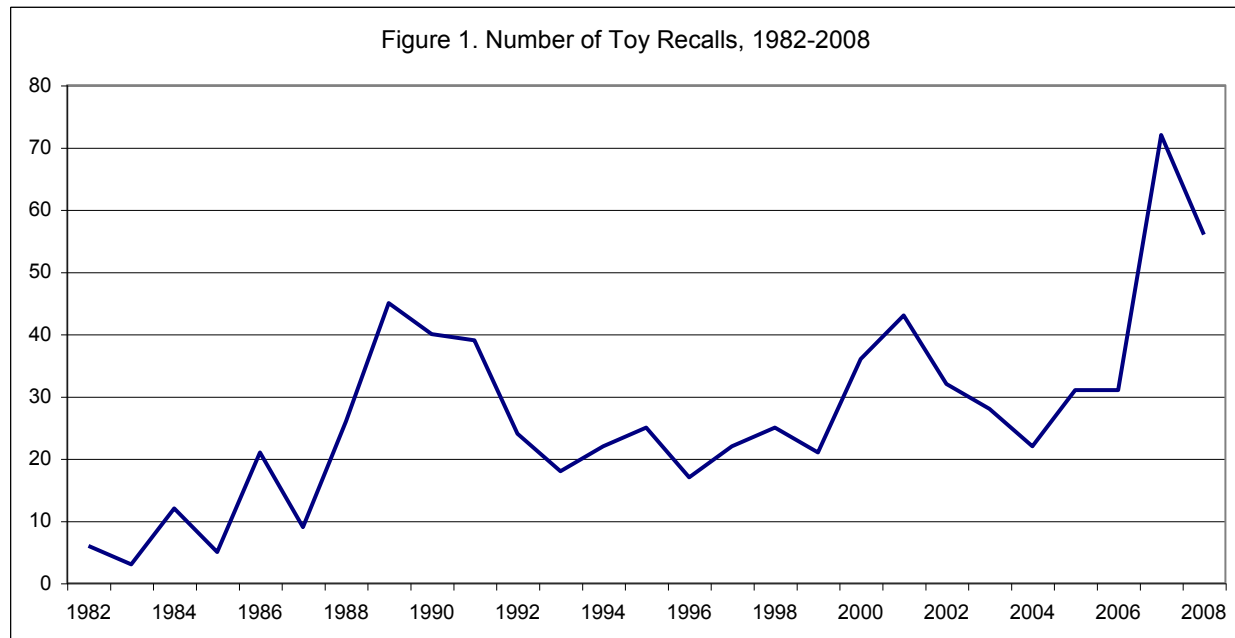
The event dates correspond to the press release days for the toy recalls. These 'voluntary' dates follow significant company analysis and review. In either case the stock market may be better informed than consumers prior to the press release resulting in reductions in share prices prior to the event days. Since the information contained in the CPSC database may have released before the close of trading on the previous day, the 2-day event window includes the prior trading day. The cumulative abnormal return is the 2-day sum of daily average abnormal returns. Let t index the time in trading days relative to the recall announcement at event day 0. We estimate the market model parameters (α β) for the 255 days of trading prior to the announcement from $t = -300$ to $t = -46$. The event period consists of 61 trading days centered on the product recall announcement event (-30 through +30).

ANALYSIS AND FINDINGS

We used a sample of the eighty four companies and we fitted a standard market model and calculated the abnormal returns using the following four event windows: [-30, 2], [-1, 0], [+1, +2] and [+3, +30]. We define the event date as the date zero.

Using CRSP data and the market model, we estimated the mean abnormal returns for three event windows utilizing the EVENTUS software. The estimated results for the four event windows and their associated test statistics are presented in Table 1. We estimated the mean abnormal returns in two ways: (a) using the market model with equally weighted index; and (b) using the market adjusted returns with equally weighted index. The results indicate that there is a statistically insignificant -0.08 percent mean cumulative abnormal return for the window [-1, 0] but a statistically significant -0.61 percent mean cumulative abnormal return for the window [+1, +2], using equal weighted index as proxy for market portfolio return. There is also a statistically significant -3.84 percent mean cumulative abnormal return for the window [+3, +30], using equal weighted index as proxy for market portfolio return. However, the return increases to 0.05 percent, -0.52 percent, and -3.71 percent for the three event windows, respectively, when market adjusted returns with equally weighted index was used. The results suggest that markets on average tend to react negatively when toy recall announcements are made public.

In conclusion, the toy product recall announcements are found to have a significantly negative effect on stock prices on and around the event days. This finding is consistent with the findings of previous studies on the relationship between the stock prices and the product recall announcements.



Note: Figures for 2008 are from January through August 2008.

Source: The U.S. Consumer Product Safety Commission (CPSC), Product Recall database.

Table 1. *Mean Abnormal Returns of Event Period [-30, +30]*

(a) Market Model, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30, -2)	84	-1.77%	-1.22%	32:52<	-1.35	-1.26	-1.86*
(-1, 0)	84	-0.08%	-0.10%	46:38	-0.41	-0.21	1.19
(+1, +2)	84	-0.61%	-0.66%	30:54<	-2.77**	-1.66*	-2.30*
(+3,+30)	84	-3.84%	-3.02%	29:55<<	-3.40**	-2.77**	-2.52**

(b) Market Adjusted Returns, Equally Weighted Index

Days	N	Mean Cumulative Abnormal Returns	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(-30,-2)	84	-2.36%	-1.91%	30:54<	-1.74*	-1.63	-2.19*
(-1, 0)	84	0.05%	-0.05%	45:39	-0.18	0.13	1.09
(+1, +2)	84	-0.52%	-0.68%	31:53<	-2.37**	-1.38	-1.97*
(+3,+30)	84	-3.71%	-4.06%	30:54<	-3.77**	-2.61**	-2.19*

Note: The symbols * and ** denote statistical significance at the 0.05 and 0.01 levels, respectively. The symbols < and << correspond to the direction of the generalized sign test and statistical significance at the 0.05 and 0.01 levels, respectively.

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THE MORAL CRISIS UNDERLYING THE ECONOMIC CRISIS**Steve Robinson***University of North Carolina, Wilmington***Derrick Nance***Pearson Education, Inc***ABSTRACT**

The recent economic crisis has uncovered not only a succession of business failings, but a wealth of moral failings. While politicians scramble to pass blame on the opposing side, and those who are more honest search for answers to the question, “How did this all happen?” in terms of the specific actions, decisions, and events, that led to the crisis, the present authors would like to explore the question, “*Morally*, how did this all happen?” We would like to focus on a few examples (AIG, Fannie & Freddie, and Lehman Brothers) of how fantastically naïve some of the business policies the companies who recently met their demise were functioning under and we would like to point out that these failed business policies cannot be said to have been the consequences of an ‘error of knowledge’, but rather, in our view, of a deeper ‘breach of morality’. In this paper we attribute the primary moral failings of the leaders of these companies, not to greed, as one so often hears echoing on the streets and in public forums, but to willful evasion and/or thoughtlessness in regard to what every businessperson knows (or should know) as sound business practice and financial management¹. Beyond describing what moral indiscretions were made, we discuss at length two moral principles, rationality and independent thought, we believe should have been evinced and could have mitigated the present crisis.

THE KNOWLEDGE CHAIN MODEL: PRIMARY ACTIVITIES AND COMPETITIVE ADVANTAGE

Meenu Singh

Murray State University

ABSTRACT

In an economy where the only certainty is uncertainty, one source of lasting competitive advantage is knowledge and its manipulation. As a step toward better leverage of knowledge, this research advances a model that identifies and characterizes Knowledge Management (KM) activities an organization can focus on to enhance its performance. Called the *Knowledge Chain* model, it is grounded in a descriptive KM framework developed via a Delphi-study. This framework identifies five major primary knowledge manipulation activities that occur in various patterns within KM episodes. It also identifies four major secondary managerial influences on the conduct of KM. These are focal points for achieving competitiveness through KM. This paper focuses specifically on the five primary KM activities: Knowledge Acquisition, Knowledge Selection, Knowledge Generation, Knowledge Assimilation, and Knowledge Emission. We provide a characterization for each primary activity and for each activity, evidence is provided that suggest it can contribute to competitiveness.

INTRODUCTION

In the current knowledge economy where the only certainty is uncertainty, one source of lasting competitive advantage is knowledge and its manipulation (Nonaka, 1991). Researchers in the field of sustainable competitive advantage have discovered that knowledge, which includes what the organization knows, how it uses what it knows, and how fast it can know something new, is the only thing that offers an organization a competitive edge (Prusak, 1996).

These contentions about competitiveness achieved through knowledge management (KM) are found to be in agreement with results of empirical studies conducted by organizations such as Delphi (1997), Hughes Space and Communications Company, and Ford Motor Company (Ward & Le, 1996). Moreover, in a survey conducted by the Journal of Knowledge management, over 90% of respondents perceived their organizations to be knowledge intensive and a mere 6% judged their organizations as being very effective in leveraging knowledge to yield better performance (Chase, 1997). However, except for an assortment of success stories supporting the macro-level contentions that KM initiatives are undertaken for the purpose of achieving better organizational efficiency and effectiveness, there has been little investigation of the connections between KM and competitiveness.

In order to systematically improve the leveraging of knowledge, it is essential to have a model that identifies the possible fulcrums. These fulcrums are the KM group of activities that can yield competitive advantage if designed and executed better than those of other organizations. The knowledge chain model has been introduced as just such a model (Holsapple & Singh, 2001). The knowledge chain (KC) model is grounded in a descriptive KM ontology that was collaboratively developed via a Delphi-study involving an international panel of KM experts (Joshi, 1998). It is somewhat analogous to Porter's value chain model. The KC model posits five primary and four secondary distinct activities that an organization performs in the course of leveraging its knowledge resources. It contends that these are focal points for achieving competitiveness through knowledge management, in the sense that an organization can perform one or more of them better than competitors in order to achieve a competitive edge. Moreover, anecdotal evidence has been reported that illustrates the direct role of each of the nine KC activities in adding value to an organization and increasing its competitiveness.

Taking a step beyond the anecdotal evidence, this paper further substantiates the knowledge chain model via an empirical investigation of the relationship between each KM activity in the KC model and the organizational performance achieved through four approaches to competitiveness: Productivity, Agility, Innovation, and Reputation (collectively referred to as the PAIR approaches). The study uses the perceptions of chief knowledge officers (CKOs) and other leaders of KM initiatives. The results provide evidence that every KM activity in the KC model can provide enhanced organizational performance via each of the four competitive approaches. In this paper, we focus on the five primary activities and their results.

The main consequence of these results is that the Knowledge Chain Model furnishes an empirically supported structure for KM research and practice.

BACKGROUND

Knowledge management aims to ensure that the right knowledge is available in the right representation to the right processors (humans or machines) at the right time for the right cost. When a knowledge-based organization undertakes to execute KM activities in pursuit of this objective, it involves a panorama of knowledge flows and knowledge processing. In many cases, the knowledge manipulation activities and the flows that connect them can be performed, enabled, or facilitated electronically. We contend that one key to more fully exploiting the competitive potential of knowledge management is a model that identifies value-adding KM activities. Practitioners could use the model to structure their consideration and evaluation of KM initiatives. Researchers could use the model to structure their exploration of connections between KM and competitiveness. Educators and students could use the model to help structure coverage of KM activities and their impacts. These motivations, coupled with the absence of such a model in the literature, lead us to further investigate the knowledge chain model.

The Knowledge Chain Model

The Knowledge Chain Model is based on a KM ontology developed via a Delphi-study involving an international panel of prominent KM practitioners and academicians (Joshi, 1998). This ontology identifies five major knowledge manipulation activities (acquisition, selection, generation, assimilation, emission) that occur in various patterns within KM episodes. The ontology also identifies four major managerial influences (leadership, coordination, control, measurement) on the conduct of knowledge management. Respectively, these form the five primary and four secondary KM activities in the knowledge chain model (Holsapple & Singh, 2001). Table 1 and Table 2 provide a summary of the primary activities and secondary activities respectively.

Table 1. *Primary Activities in the Knowledge Chain Model*

Primary activity	Description
Knowledge acquisition	Acquiring knowledge from external sources and making it suitable for subsequent use
Knowledge selection	Selecting needed knowledge from internal sources and making it suitable for subsequent use
Knowledge generation	Producing knowledge by either discovery or derivation from existing knowledge
Knowledge assimilation	Altering the state of an organization's knowledge resources by distributing and storing acquired, selected, or generated knowledge
Knowledge emission	Embedding knowledge into organizational outputs for release into the environment

Table 2. *Secondary Activities in the Knowledge Chain Model*

Secondary activity	Description
Knowledge measurement	Assessing values of knowledge resources, knowledge processors, and their deployment
Knowledge control	Ensuring that needed knowledge processors and resources are available in sufficient quality and quantity, subject to security requirements
Knowledge coordination	Managing dependencies among KM activities to ensure that proper processes and resources are brought to bear adequately at appropriate times
Knowledge leadership	Establishing conditions that enable and facilitate fruitful conduct of KM

As illustrated in Figure 1, the model contends that various combinations and implementations of primary and secondary activities lead to organizational *learning* (i.e., changes in an organization's state of knowledge) and projections (i.e., release or organizational resources into the environment). As Figure 1 suggests, these activities lead to four organizational performance implications: productivity, agility, innovation, and reputation. Referred to as the PAIR approaches to competitiveness, these four are explained later in this section.

The KC model contends that these are the major KM activities with which a chief knowledge officer needs to be concerned. KM skills of an organization's participants need to be cultivated, harnessed, and organized in the performance of these activities. KM technologies need to be identified and adopted in support of these activities. The KC model theorizes that the specific ways in which the nine KM activities are implemented in using an organization's knowledge resources can lead to enhanced competitiveness through the PAIR approaches.

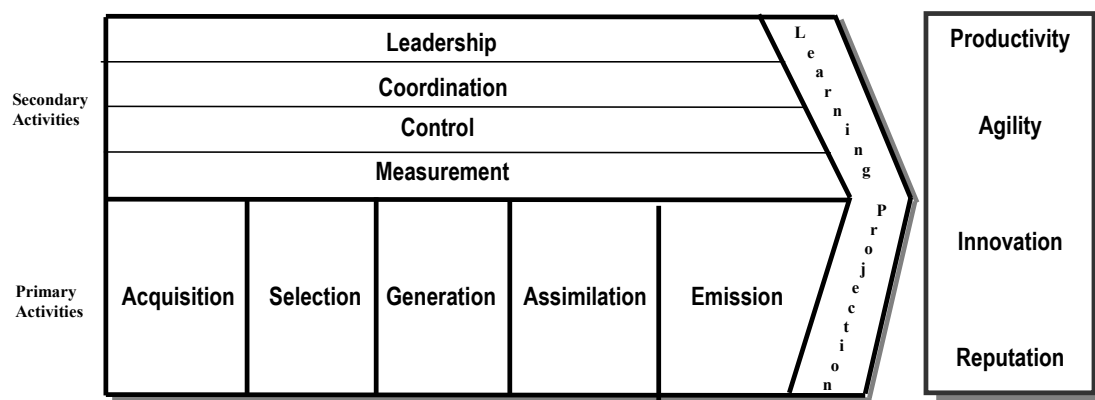


Figure 1. The Knowledge Chain Model (Adapted from Holsapple and Singh, 2001)

Four Specific Approaches to Competitiveness

Productivity. Productivity is the rate at which goods and services are produced per unit cost. Although it is commonly defined in terms of labor, it can also be seen as the value people contribute to business processes. Productivity is a major concern for any organization because it deeply influences the well being of the organization and its members (Turban et al., 1999).

Agility. Due to the increasing dynamism of the global market, the competitive advantage provided by agility has emerged as an important priority. The ability to react rapidly to demand variability is becoming so critical in today's environment that it outshines all other competitive weapons. Rick Dove, Director of Strategic Analysis at the Agile Manufacturing Enterprise Forum, defines agility as "the ability to thrive in an environment of unpredictable and constant change" (Stewart & Pinholster, 1993).

Innovation. Innovation is the means whereby organizations exploit change as an opportunity for a different business or a different service, and it is capable of being learned and practiced. In a top-line finding of an Ernst & Young survey (1997), executives see innovation as the greatest payoff from knowledge management, even though KM efforts have so far concentrated on achieving productivity gains.

Reputation. Few business owners would disagree that one of their most valuable assets is the reputation of their business because a stellar reputation builds a competitive advantage (Kartalia, 2000). For knowledge-based organizations, competitive advantage and profits are generated through the successful management of intangible assets such as reputation (Sveiby, 1997).

RESEARCH METHOD

We conducted a study to ascertain answers to the following questions with regard to *each* of the nine knowledge chain activities: Does the activity contribute to a competitive advantage by: Improving productivity (e.g., lower cost, greater speed)? Enhancing reputation (e.g., better quality, dependability, brand differentiation)? Enhancing organizational agility (e.g., more alertness, rapid response ability; greater flexibility and adaptability)? Fostering innovation (e.g., inventing new products, services, processes)? Essentially, we are exploring whether each knowledge chain activity exists as a lever for improving firm performance (i.e., competitiveness) and, if so, via which of the PAIR approaches. The exploration involves collecting and analyzing perceptions from experienced leaders of KM initiatives in a variety of organizations.

The methodology chosen is a field survey involving one instrument. The instrument begins with brief instructions to respondents. Next, a two-page quick reference guide is provided including an overview of the knowledge chain model and brief descriptions of its activities. The main body of the instrument is structured into nine similar sections, one for each of the nine knowledge chain activities. At the beginning of each section, a description of the nature of its knowledge chain activity (and its sub-activities, if applicable) is given. The questions about relationships of this activity to competitiveness follow. For each activity, the questions shown in the previous section are answered on a seven-point Likert-type scale. The evaluative characterizations for the scale responses are: Not At All (1); Moderately (4); and, Extensively (7). Characterizations of the remaining scale levels (i.e., 2,3,5,6) are not explicitly defined on the questionnaire.

In this study, we are solely interested in organizations with ongoing knowledge management initiatives. We set the qualification of a potential survey candidate to be someone in the leadership position for a KM initiative within an organization. Based on this criteria, we searched a variety of sources to get a mailing list for leaders of knowledge management initiatives. One hundred and two potential respondents were thereby identified. The survey instrument was sent to these 102 candidates. To improve the response rate, reminders were issued a couple of weeks after the due date to respondents who failed to return their surveys on the designated date stated in the cover letter. After five months had elapsed, thirty-two had responded for a response rate of 31.4%.

RESULTS AND DISCUSSION

For each primary activity, Table 3 shows means and standard deviations for the degrees of contribution to competitiveness along each PAIR dimension (i.e., productivity, agility, innovation, reputation). The percentages of “strong contribution” responses are shown in Table 4. Ranges of strong contribution percentages for the four PAIR approaches to competitiveness are as follows: Productivity (37.0% - 58.6%), Reputation (36.0% - 65.5%), Agility (31.0% - 65.5%), and Innovation (42.9% - 67.9%).

Table 3. *Means (standard deviations) of contributions made by primary activities along each PAIR dimension*

Primary activity	Contribution to Productivity	Contribution to Agility	Contribution to Innovation	Contribution to Reputation
Acquisition	4.47 (1.3)	4.17 (1.6)	4.67 (1.8)	4.80 (1.6)
Selection	4.33 (1.8)	4.33 (1.7)	4.33 (1.9)	4.47 (1.9)
Generation	4.72 (1.4)	4.90 (1.4)	4.57 (1.7)	4.86 (1.6)
Assimilation	3.85 (1.8)	3.83 (1.8)	4.15 (1.9)	3.72 (2.0)
Emission	3.89 (1.8)	3.54 (1.4)	3.50 (1.8)	4.14 (1.9)

Table 4. *Percentages of “strong contribution” responses for each primary activity*

Primary activity	Productivity	Agility	Innovation	Reputation
Acquisition	43.3	36.7	56.7	53.3
Selection	46.7	53.3	53.3	53.3
Generation	58.6	65.5	67.9	65.5
Assimilation	37.0	31.0	51.9	36.0
Emission	50.0	32.1	42.9	53.6

In the analysis of results, we adopt a fairly high 25% threshold for existence. However, failure to meet this threshold does not necessarily imply the absence of potentially strong connections between performing the activity and its competitive impact. It may just be rare. Indeed, it could reflect a major opportunity to be one of the few who have discovered ways to perform the activity such that a strongly positive competitive impact is realized. In all cases, the 25% threshold is surpassed. Each of the primary activities even passes a 50% threshold for at least one of the PAIR dimensions. We conclude that there can be no question about the existence and inclusion of the five primary activities in the Knowledge Chain Model. This result is wholly consistent with previously cited anecdotal support for the model’s primary activities (Holsapple & Singh, 2001).

Looking at knowledge acquisition, the highest strong performance implication is for innovation. Acquisition brings fresh, stimulating ideas into the organization from the external environment, and the innovation process has been defined as bringing ideas to market. For selection, there is little difference among the four approaches. Interestingly, Generation has the highest strong percentages for all the four approaches among all the primary activities in terms of current practices: productivity (58.6%), reputation (65.5%), agility (65.5%), and innovation (67.9%). The way in which Knowledge generation contributes strongly to competitive advantage is not so much by being productive as by allowing the organization to be more agile and innovative. This, in turn, fosters reputation.

Assimilation and acquisition operate in tandem in that both have the highest percentage for fostering innovation. This is understandable because, while acquisition acquires fresh and new ideas from the outside, Assimilation exposes participants to existing in-house knowledge thus rendering provocative and stimulating effects that consequently promote innovation. As for Emission, competitive advantage is achieved more through productivity and reputation than agility and innovation. Knowledge emission results in projections. When an organization transfers an output, it is projecting. The process of effective projection adds value to an organization.

The empirical evidence suggests that the added value come more strongly in the forms of productivity and reputation and less so with agility and innovation. The justification may be that, in many cases, agility is something that happens prior to emission. Similarly, in many organizations, learning (i.e., innovation) happens prior to emission. Therefore, it is understandable that agility and innovation take a backseat to productivity and reputation.

CONCLUSION

A major contribution of this paper is that it provides evidence from leaders of KM initiatives that confirms the existence and inclusion of each of the five primary activities in the Knowledge Chain Model. Thus, it confirms earlier anecdotal findings (Holsapple & Singh, 2001). In a very practical sense, this study tells us that each of the five primary knowledge chain activities is linked to organizational performance. Each can be conceived and implemented in ways that strongly contribute to an organization's competitiveness in terms of PAIR approaches. Each deserves consideration in planning an organization's competitive strategy. While the contributions of this study are important, there is a limitation. This study could not find a ready mailing list for leaders in organizations with ongoing knowledge management initiatives, and proceeded with 102 candidates found in various ways. Even though the response rate was 31.4%, the study could benefit by having a larger pool of candidates and respondents. Thus, the present study is relatively exploratory.

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GYMS GOING GREEN: HOW GOING GREEN MAY BRING MORE CUSTOMERS TO YOUR DOOR

Nasim Lari

North Carolina State University

Matthew Kutch

Elon University

ABSTRACT

Nowadays, quite a bit of attention is paid to “going green,” which ranges anywhere from recycling the Sunday paper to building a home from the ground up, incorporating green building practices. In spite of this increased attention and initiative, we have a long road ahead of us in reaching our potential as an environmentally friendly nation. For instance, bottled water sales in the United States reached 8.82 billion gallons in 2007, while recycling rates have remained fairly stagnant. Recycling is only one area in which we can improve. This paper considers how a typical gym, or fitness club, can save money not only for the owners, but also the customers, by incorporating a set of green practices.

INTRODUCTION

In 2007, Jimmy Peak Mountain Resort in Hancock, Massachusetts, became the first ski resort in the United States to feature a 386-foot wind turbine. CEO Brian Fairbank first considered building this turbine to cope with the massive costs of making snow. The project was completed at a cost of four million dollars; but, now cuts approximately 33% a year from the resort's energy bill - equivalent to the amount of energy needed to power over 600 homes. In the summer, when the resort's demands are lower, the wind turbine's electricity is used to power local homes and businesses (Tejpar 2009).

Green practices have even reached New York City's Broadway. As part of Mayor Michael Bloomberg's plan to reduce the city's carbon footprint 30 percent by 2030, the mayor has launched the “Broadway Goes Green” initiative. Theaters have replaced older bulbs with more energy-efficient ones, and will strive to use environmentally friendly materials in scenery, recycle and reuse props, and wash costumes in cold water and use rechargeable batteries in sound equipment (Associated Press 2008).

In his Joint Session of Congress address, on February 24th, President Obama stressed the importance of renewable energy (Obama 2009). In support of this initiative, and to help in the effort to save and improve the environment, this paper broadens the existing definition of Green Exercise, stresses the importance of green practices, and evaluates how a typical fitness club can save money not only for the owners, but also the customers, by incorporating a set of green practices.

WHY TRY GREEN EXERCISE?

What is Green Exercise?

Walking the Way to Health, a Natural England initiative, defines Green Exercise as any informal physical activity that takes place outdoors. These activities include gardening, cycling, walking, kite flying and conservation projects. Green Exercise not only connects people to nature, but is also one of the most cost-effective ways of improving their physical and mental health (Walking the Way to Health 2009). The existing definition of Green Exercise is centered on outdoor activities and fails to mention the possible resource use involved with such activities. Thus, in this paper, the definition of Green Exercise is expanded to include exercise, which is performed indoors or outdoors, while incorporating green practices.

How can gyms go green?

Green practices range anywhere from recycling plastic and paper to building energy-efficient buildings. These practices are essential to maintaining our environment's health. So, how can gyms go green?

Recycle Plastic

Gyms should encourage their patrons to use reusable water containers. However, if their customers use plastic bottles, recycling bins must be made readily available. Plastic does not biodegrade at all (Oliver 2008); thus, if used, it is crucial that it be recycled. In 2007, bottled water sales in the United States reached 8.82 billion gallons, which made the United States the largest market in the world for bottled water. Unfortunately, less than 20 percent of water bottles are recycled. Many state governments have legislated to limit bottled water use, and restaurants and schools have followed suit (Gies 2008).

Aside from government legislation, rising oil prices may also play a part in increasing the use of recycled plastic (Oliver 2008). The production of bottled water leads to environmental problems such as greenhouse emissions and energy consumption. The U.S. alone uses approximately 17 million barrels of oil each year to produce water bottles (Gies 2008).

Use Alternative Energy

The sun's energy can be harnessed in many ways, such as passive solar heating, photovoltaic systems, solar hot water, and solar process heat. Gyms can improve efficiency and save money by using a variety of solar technologies. Some are best incorporated in buildings as they are being built, while others can be added to existing buildings (NREL 2009). A brief description of some of the possibilities is provided below (NREL 2009).

Passive Solar

For gyms that are being built from the ground up, it is important to consider that the south side of a building receives the most sunlight throughout the day and should therefore be designed such that they have south-facing windows. In addition, the floors and walls can be built with materials that can absorb and store the sun's heat during the day and slowly release heat at night. The inclusion of sunspaces is another option, which allows sunlight to pass through glass and warm the sunspace (NREL 2009). For existing buildings, it is possible to install certain materials and replace any south-facing windows with larger and more energy-efficient windows.

Photovoltaics

Photovoltaics (PV) are made of materials similar to those used in computer chips and convert sunlight directly into electricity. About 10 to 20 PV arrays are needed to provide enough power for a household. Recent innovations have made it possible for solar cells to double as rooftop shingles, which offer the same durability as ordinary shingles (NREL 2009). Thus, solar cells may be installed on the roof, or replace existing roof fixtures.

Solar Hot Water

Gyms can rely on solar water heating systems to provide the building's warm water; in other words, the sun can be used to heat water used in gyms. Solar water heating systems are typically composed of two main parts: a solar collector and a storage tank. The most common type is mounted on the roof, facing the sun, and consists of a flat, rectangular box with a transparent cover. Small tubes, carrying fluid, run through the solar collector; as heat builds up in the collector, it in turn heats the fluid passing through the tubes. The hot liquid from the tubes is collected and held in a storage tank.

The items mentioned above are only several ways in which gyms can incorporate green practices and thereby support green exercise. Fitness centers can also commit to washing their towels with cold water, which would result in less energy use, and eco-friendly detergents, or provide classes to encourage green exercise even outside the center. Other modifications may include, automatic shut-off timers on saunas and lights for areas that may be left unused for long periods of time (i.e. throughout the night for facilities open twenty-four hours). These items collectively contribute to effective resource use and support the modified definition of Green Exercise.

CONCLUSION

This paper extended the definition of Green Exercise, previously defined as any informal physical activity that takes place outdoors, to include exercise which is performed indoors, while incorporating green practices, as well. Green practices can no longer be considered a fad observed by a particular group society. Taking care of the environment is becoming ever more crucial in today's world. Thus, it is our responsibility to follow government initiative and see how we can contribute to this effort. This paper proposed ways in which a typical gym, or fitness club, can save money not only for the owners, but also the customers, by incorporating a set of green practices. With

increased green practices, the gyms can gain returns on their investments within a couple of years and allow their customers to partake in the savings. Additional research must be done in order to account for all possible avenues to conserve energy, for both existing gyms and those to be built. Further, a detailed cost analysis and timeline will allow the researchers to better understand the benefits of green exercise.

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A COMPARATIVE STUDY OF PERUVIAN AND CHILEAN STUDENTS INTEREST IN INTERNATIONAL BUSINESS CAREER ASSIGNMENT

John E. Spillan

University of North Carolina at Pembroke

Manmohan D. Chaubey

Penn State University, DuBois Campus

Ramin Maysami

University of North Carolina at Pembroke

ABSTRACT

The growth and expansion of international markets has provided many opportunities for students to pursue work careers all over the world. Many companies, which have expanded globally, are in need of finding talented, interested and capable workers to accept job assignments in their foreign offices. Identifying who the potential candidates for foreign job assignments is an important human resource task. The purpose of this paper is to explore the perceptions of business students in relation to their knowledge and interests in working in a foreign country. The results indicate that Europe and Latin America are areas of the world that appear to be of more interest to students than others. Intuitive observation indicates that because most people are more familiar with these areas of the world, more interest and motivation to work in these geographic areas would be higher. Statistical analyses are conducted. Implications for businesses are set forth in the discussions.

INTRODUCTION

American and European companies have been recruiting student graduates responsive to working in international settings (Foster & Johnsen, 1996; Laabs, 1991; Scullion, 1992; Stroh & Caligiuri, 1998; Solomon, 1994; Weeks, 1992) for some time. Newly trained professionals are an important pool of management talent available to meet the needs of global and multinational firms. These students are the future of business because they not only provide the intellectual capital for the present work plans but they also offer human resources that will determine international business of the future (Laabs, 1991; Scullion, 1992; Solomon, 1994; Weeks, 1992).

The direction that new recruits to international work settings choose for adapting to their new work environments has been the topic of management research for over two decades (e.g., Van Mannen and Schein, 1979; Nicholson, 1984; Fisher, 1986; Chao, et al., 1994). This research is important in international business mainly because of the difficulty connected with newcomers adjustment to new work roles, organizational cultures, and national cultures (Black et al., 1991). The complexities are well documented in the international literature especially with the reports of high expatriate premature return rates (e.g., Tung, 1981; Shay and Tracey, 1997) and the great costs related to premature staff returns to home offices (e.g., Caudron, 1991; Kraimer et al., 2001).

The current study begins by presenting an overview of international effectiveness literatures. We then present the theoretical rationale for our model. Next, we use opinions of 229 students who completed a survey regarding their knowledge of a particular part of the world and their willingness to accept an assignment in that part of the globe. Further, we analyzed this data by comparing relationships between those who have visited a country and those who have not, along with those who speak a foreign language and those who do not. Finally, we present our findings and discuss their implications.

LITERATURE REVIEW AND HYPOTHESES

Receptivity to international employment is an important concept. It has been studied by various scholars in cross-sectional environments (Aryee, Chay, & Chew, 1996; Bois & Rothstein, 2002; Brett & Stroh, 1995; Clegg & Gray, 2002). There is evidence that multiple streams of research regarding success in international assignments have been conducted. A number of recruiting strategies have been employed to secure professionals for a global work force (Fedlman, 2001; Weeks, 1992). Many firms assess skills of prospective expatriates in an effort to select individuals most likely to succeed in the assignment (Graf, 2004; Van Vianen, DeParter, Kistof-Brown & Johnson, 2004). Successful expatriate assignments have been linked to a number of variables, including one's predisposition

for such an assignment (Tharenou, 2003), training and preparation prior to the assignment (Shay & Baack, 2004), intuition and creativity (Harvey & Novicevic, 2002) and cultural differences (Jassawalla, Truglia, & Garvey, 2004, Sims & Shrader, 2004).

Solomon (1994) and Laabs (1991) showed how U.S. global companies seek new business graduates from abroad for their graduates recruitment programs. The labor needs of global and multinational firms for graduates from abroad are consistent with young graduates self-initiating work opportunities (Hugo, Rudd, & Harris, 2001).

Why is the study of students relevant? First, understanding the receptivity to working abroad of young professionals can assist companies in their recruitment and search for new talent (Laabs, 1991; Scullion, 1992; Solomon, 1994; Weeks, 1992). Second, scholars advocate understanding students receptivity to international careers because they are the next generation of managers (Adler, 1986, Hill & Tillery, 1992). Third, by studying students who are contemplating entering the work force or who are considering different employment once they finish their education, strategies can be developed as to how to better recruit and attract them to international occupations.

METHODS AND DATA COLLECTION

Data for this paper was collected from students through a self-administered survey. Work values were measured via Manhardt's (1972) three-dimensional scale. In general, Manhardt's work has been supported in subsequent tests, although the dimensions-comfort and security, competence and growth, and stauts and independence have changed slightly in several studies (Brenner & Tomkiewicz, 1982; Meyer, Irving, & Allen, 1998). Students from three major universities in Pennsylvania, West Virginia and Florida were surveyed regarding their knowledge, interest and desire to work abroad. A total of 228 students are included in the data set for this study.

RESEARCH HYPOTHESES

What factors affect or motivate a students desire to seek professional employment abroad? To develop this question and more thoroughly understand the substance of the factors associated with a students interest in a foreign country career we developed five (5) major hypotheses.

Often the age of a student will determine whether they can immediately pursue a adventure in a foreign country. For students who are "unattached," traveling to another country is a lark. Younger students have not settled down yet and for some career goals are not solidly developed. As such, foreign travel provides an exciting growth experience for them and it is very appealing. Older students generally have a set goal and in many cases are looking for a steady, professional career that will provide a comfortable living for them and their families (Tharenou 2003). Because of this state of affairs we assert that:

H₁: *There is a significant difference between older students and younger students in their desire to work abroad.*

Historically, men have been the primary career individual occupying professional positions in foreign companies. The global economy, however, has offered varied opportunities for many people to advance their careers from many dimensions. Women especially have been able to pursue careers that have been very advantageous and helpful in there development. Studies by Taylor et al, (1996) indicate that the number of women moving into foreign career jobs has increased. As such we believe that there will be

H₂: *There exists a significant difference between men and women in their desire to work abroad*

Those students who have lived abroad appear to have more interest in pursuing careers abroad. Familiarity with the culture and the geography offers information and evidence that students can tangibly sort out and make solid decisions based on this actual assimilation into the culture (Selmer & Lam, 2004). Thus we posit that:

H₃: *There will be a significant difference between students who have lived abroad for 60 days and those who have not.*

Safety has always been a major factor for people from all cultures traveling in unknown areas of the world. Over the last 5 years, the intensity of ethnocentrism among countries has grown broader and more intense. Such ideas and emotional feelings about the nationality of a person, especially students can have a major effect on their desire to not only travel but work abroad. Therefore we believe that:

H₄: *There will be a major concern about safety among American students seeking professional careers aboard.*

Clearly, language fluency has been demonstrated repeatedly that it contributes significantly to the ability and motivation of a person to work abroad. Students proficient in a foreign language will have an increased desire and an ability to demonstrate success in their work assignments and travel (Nicholson & Imaizumi, 1993, Victor, 1992). With this idea in mind we propose that:

H₅: *There will be a significant difference between students who possess language ability than those who do not.*

DATA ANALYSIS AND RESULTS

Table 1 shows the mean students' response on their knowledge of and their job interest in different regions of the world and the same in a few selected countries. The table segregates the results by the countries where the data was collected. It makes it possible to compare the students' responses to region and country knowledge and desire in job assignments among the three groups of students.

Region and Country Knowledge

In general, as Table 1 shows, the students did not report a high level of knowledge for any region. The only exceptions to this are the Peruvian students reported knowledge of South America and the Chilean students' knowledge of Eastern Europe had mean responses exceeding 3.50. The US students' mean response on knowledge of African regions, though low (below 2.0), exceeded the mean responses for the Peruvian and Chilean students. The mean response to level of knowledge generally is higher for individual countries. The Peruvian students reported high mean scores (above 3.0) for UK, Canada, France, and Mexico. The Chilean students reported higher mean responses (above 3.0) for Germany, France and Mexico. In general, the mean scores on country knowledge are higher than that for the regions. This is because the regions presented to the student, did not include the Western Europe or the North America. Countries in these two regions received the higher level of knowledge scores from the students.

Peruvian students provided a very high mean response values for North America region and the highest mean response for the USA. This is not surprising due to the salience of the USA in the Americas. The questionnaire used in Chile inadvertently excludes the North America and the USA, so we do not have the Peruvian students' knowledge scores for these two items.

The students from Peru and Chile, compared to the US students indicated a higher level of knowledge for all but two countries included in the survey. The exceptions were India and Korea where the Peruvian students indicated a lower level (mean response below 2.0) of knowledge. Except for these two examples, and the US students' response to level of knowledge about South Africa, mean responses for all other countries were above 2.0 for all the three groups of students. The Peruvian students' mean responses for the UK, Canada, France and Mexico and the Chilean students' mean responses for Germany, France and Mexico were especially high (above 3.0). The US students indicated such high level of knowledge only for Canada. The Peruvian students, not surprisingly, indicated an above 4.0 level of knowledge for USA. As indicated above, we do not have data on USA for the Chilean students and including USA for the US questionnaire would not have made sense.

Table 1. *Desire for Job Assignments and Knowledge*

	Level of Knowledge			Desire for Job Assignment		
	Peru	Chile	USA	Peru	Chile	USA
	Mean	Mean	Mean	Mean	Mean	Mean
Job Region						
Scandinavia	1.79	2.05	2.12	2.27	2.11	2.20
Eastern Europe	2.03	3.57	2.02	2.44	3.18	2.18
South America	3.74	2.11	2.33	3.43	2.57	2.11
Central America	2.35	2.45	2.17	2.28	3.26	1.97
North Africa	1.73	1.98	1.93	1.29	1.94	1.64

South-Central Africa	1.46	1.49	1.70	1.45	1.54	1.48
East Africa	1.43	1.51	1.74	1.40	1.51	1.45
West Africa	1.47	1.38	1.72	1.50	1.33	1.42
North America	3.62			3.86		
Job Country						
Australia	2.86	2.87	2.62	3.43	3.89	3.07
UK	3.22	2.98	2.87	3.49	3.51	2.79
Canada	3.12	2.93	3.19	3.56	3.87	2.76
Germany	2.97	3.07	2.69	2.97	3.57	2.40
France	3.24	3.26	2.69	3.50	3.83	2.25
Japan	2.71	2.28	2.40	2.60	2.44	2.19
Mexico	3.33	3.26	2.88	2.82	3.20	2.06
China	2.45	2.78	2.45	2.37	2.81	1.97
Russia	2.22	2.33	2.16	2.17	2.45	1.75
South Africa	2.03	2.00	1.96	2.14	1.98	1.75
India	1.87	2.05	2.02	1.79	2.15	1.64
Korea	1.81	2.58	2.02	1.78	2.99	1.62
USA	4.05			3.95		

Desire for Foreign Job Assignment

Students' in Peru indicated higher mean response to job interest in Scandinavia, Eastern Europe, South and Central America. The mean response is greater than 2.0 for these regions. The response of the students from Chile is similar in this respect. The US students' responses have a similar profile, but they indicated a lower job interest for Central America than the students from Peru and Chile. All the three student groups rated their job interest in North Africa, South-Central Africa and East and West Africa as low (less than 2.0 mean response).

The students from Peru indicated higher job interest for South America (mean response 3.43). Students from Chile indicated high level of job interest (above 3.0) for Eastern Europe and Central America. The response on job interest in the Scandinavia, the three groups have the mean response below 2.5. For the Eastern Europe, South America and Central America regions, the students from Peru and Chile indicated a higher degree of job interest than their US counterparts. In general, it can be concluded that the students from Chile and Peru reported higher job interest about certain regions than their US counterparts.

In terms of students' interest in job assignment in different selected countries, there were some clear differences among the responses from students from the three countries. The students from Peru and Chile, compared to the US students, consistently showed higher interest in job assignments in all the listed countries. The US students had the highest job interest for Australia (mean response 3.07). Students from Peru and Chile also indicated high job interest in Australia and, as mentioned before, their mean responses were higher than that for the US students. Similar pattern can be seen in responses for UK, Canada, Germany, France, Japan and Mexico.

The Peruvian students indicated highest job interest for Canada, UK, France, and Australia with mean responses well above 3.0. The highest mean response of 3.95 was for USA. It can safely be said that the USA and the Western Europe will be destination of choice for the Peruvian students. These students also indicated strong preference for Germany, Japan, Mexico, China, Russia, and South Africa. Their mean response on job interest item was above 2.0 for these countries. India and Korea held only a weak attraction for the Peruvian students.

The Chilean students also reported very strong job interests (mean response greater than 3.0) in Australia, Mexico, UK and in other Western European countries. Surprisingly, these students showed strong interest in accepting job assignments in all listed countries except South Africa. The data indicates that the Chilean students are more open to job assignments abroad than the students are from Peru or the USA. The US students in comparison indicated the least interest in foreign job assignments.

As far as the knowledge of regions or country is concerned, the students reported a higher level of knowledge about the countries than of the corresponding regions. The name of the country has the specificity whereas the regions lack it. Globalization and international trade brings people in contact with people and products from other

countries. That helps develop familiarity with the countries. The regions lack that anchor points in the students' knowledge map. However, it must be noted, the in spite of the vastness and the potential of the African continent, the students do not seem to know much about it.

The students' desire for job assignments abroad is biased towards the North American and the Western European countries. These countries have powerful economies and global business enterprises. The students are familiar with these countries and their cultures and would appear to be comfortable working there. The globalization, while it affects all economies, has highlighted the life and culture of these countries. Because of such factors, the students have shown a higher level of willingness to accept employment there. It should also be noted, that the US students perceive the USA to offer good job opportunities and a high standard of living and, therefore, the US students do not show a very high interest to accept job assignments abroad.

CORRELATION ANALYSIS

Student's knowledge of a region or a country is likely to affect their desire for job assignment there. Table 2 presents the correlation coefficients in students' response about knowledge and job interest of a region or a country for the three student groups. All the correlation coefficients are positive and statistically significant. It indicated that the knowledge of a region or a country makes a student more interested in accepting job assignment. Conversely, lack of regional or country knowledge will make a student less interested in working there. However, for students in both Peru and Chile the corresponding correlations are positive and statistically significant. For the Chilean students the correlation between National Interest and National knowledge is particularly high (0.615). The US respondents showed a high correlation among regional knowledge and interest with national knowledge and interest, a pattern similar to that of the other two countries.

The high and positive correlations indicate either that knowledge of a country creates a kind of "familiarity" that makes the student more interested in accepting a job assignment there, or that the students seek out information about the countries where they are interested in accepting a job assignment. However, the patterns among these correlations appear to indicate that the knowledge and interest have a complex relationship.

Table 2. *Correlation Coefficient Between Knowledge and Desire for Job Assignment*

Correlation Coefficients	Peru				Chile			
	RK	RI	NI	NK	RK	RI	NI	NK
Regional Knowledge (RK)	1.000	0.440*	0.548*	0.217*	1.000	0.457*	0.615*	0.388*
Regional Interest (RI)	0.440	1.000	0.241*	0.499*	0.457	1.000	0.348*	0.542*
Nation Interest (NI)	0.548	0.241	1.000	0.433*	0.615	0.348	1.000	0.614*
Nation Knowledge (NK)	0.217	0.499	0.433	1.000	0.388	0.542	0.614	1.000

Correlation Coefficients	USA			
	RK	RI	NI	NK
Regional Knowledge (RK)	1.000	.432*	.416*	.730*
Regional Interest (RI)	0.432*	1.000	.771*	.439*
Nation Interest (NI)	0.416*	.771*	1.000	.605*
Nation Knowledge (NK)	0.730*	.439*	.605*	1.000

* Significant at alpha=0.05

The Effect of Age

To see if the age of the students has any effect upon their knowledge of a country or upon their desire for accepting a job assignment there, students up to 24 years of age were coded as (YOUNGER) and those above 25 years of age were coded as OLDER. The mean responses to the Country Knowledge and Desire to Work Abroad were then calculated for the two age groups. Table 3 below presents the difference between the mean response on their knowledge of a country and also their interest for job assignments in these countries. The ANOVA tests were carried out to see if there were any statistically significant differences.

Table 3: *Difference in Mean Response By Age*

	Knowledge of Country			Desire for Assignment		
	Difference by Age			Difference by Age		
	Peru	Chile	USA	Peru	Chile	USA
Australia	-0.08	-0.10	-0.06	-0.24	-0.25	0.04
UK	0.00	-0.02	-0.19	-0.02	-0.05	0.23
Canada	0.36	-0.04	0.07	0.01	-0.10	-0.16
Germany	0.41	0.01	-0.18	-0.21	0.08	-0.05
France	0.16	-0.12	-0.34	-0.06	-0.15	0.03
Japan	0.04	-0.16	-0.16	-0.19	-0.09	0.06
Mexico	0.16	-0.30	-0.02	-0.26	-0.20	0.07
China	0.05	0.04	0.21	-0.04	0.10	0.02
Russia	0.14	-0.07	-0.02	-0.04	0.15	0.22
South Africa	0.00	-0.05	-0.02	-0.02	-0.11	-0.17
India	0.00	-0.06	-0.18	-0.35	-0.28 *	-0.24
Korea	0.04	-0.16	0.02	0.06	-0.47	0.14
USA	0.17			-0.12		

* Significant at alpha=0.05

As Table 3 shows, the differences in mean responses, with the exception of Chilean students' desire for working in India, are statistically not significant. The older students in Chile showed more interest than their younger counterparts, in working in India. We can conclude that age is not a major factor in determining the knowledge about or the desire for accepting a job assignment in a country. The results seem to hold true for the US, Peru and Chile.

The Effect of Gender

To test if the gender of the respondents has any effect on responses, the data was split between the Male and FEMALE respondents and the mean scores for the responses were calculated for the two groups. The difference in mean responses for male and female groups is given in Table 4 below. ANOVA analysis was conducted to test if the differences in mean response were statistically significant.

Regarding the knowledge of country, the male respondents reported more knowledge about Australia, Japan and Korea. The male respondents in Chile reported more knowledge than the females about UK, but the female respondents reported more knowledge about Canada than the male respondents.

In the USA, gender difference in the desire for job abroad was significant only for Japan, where male respondents showed significantly higher desire than the female respondents. In Chile, significant difference was found only South Africa. For the Peruvian students, significant differences were found for Mexico and Korea. In all these cases male students indicated a higher level of desire to work in these countries than the female students. In case of Peru, there was no statistically significant difference in the male/female response on knowledge of country.

Table 4. *Difference in Mean Response by Gender*

	Knowledge of Country	Desire for Assignment
	Difference by Gender	Difference by Gender

	Peru	Chile	USA	Peru	Chile	USA
Australia	0.30	0.02	0.32 *	0.19	-0.01	0.03
UK	0.30	0.34 *	0.30	0.32	0.24	0.28
Canada	-0.15	-0.25 *	0.25	-0.30	-0.06	0.12
Germany	0.03	-0.09	0.17	0.31	-0.04	-0.03
France	-0.15	-0.10	0.08	0.02	-0.14	-0.14
Japan	0.03	0.03	0.54 **	0.04	0.20	0.47 **
Mexico	-0.09	0.07	0.23	0.43 **	0.10	0.29
China	-0.20	0.01	0.17	0.15	0.14	0.11
Russia	0.14	0.06	0.32 *	-0.19	-0.10	0.23
South Africa	0.18	0.07	0.20	0.16	0.42 **	0.04
India	0.11	-0.10	0.12	-0.09	-0.10	-0.01
Korea	0.27	0.25	0.33 *	0.50 **	0.71	-0.02
USA	0.14			-0.05		

* Significant at alpha=0.05

** Significant at alpha=0.01

The Effect of Language Ability

To test if the language ability as reflected multilingualism of the respondents has any effect on responses, the data was split between the monolingual and bi/multi-lingual respondents and the mean scores for the responses were calculated for the two groups. The difference in mean responses for two groups is given in Table 5 below. ANOVA analysis was conducted to test if the differences in mean response were statistically significant.

Most students in the USA are monolingual. The result of the analysis shows that those with skills in another language reported a higher degree of knowledge of other countries than those with proficiency only in English. For the US respondents all the mean differences in knowledge were positive. However, only the differences for Germany, France, Mexico, and Korea were statistically significant. Similarly, the multilingual US students also reported a higher level of desire for foreign job assignments.

In comparison to the US students, those from Peru and Chile reported very little difference by their language ability both in the level of knowledge and the desire to work abroad. Language ability does not seem to play an important role in Peru and Chile in this respect. On the knowledge of the country the exceptions are Russia for Chile where the knowledge of the language led to a higher mean response. Similarly, on the desire to work variable, the respondents with language skills showed higher mean response in Chile for Korea.

Learning a foreign language also involves a certain degree of familiarization with the culture, literature, history, and the traditions of the other country. It can be assumed that multilingualism may make an individual not only more knowledgeable about other world regions and countries where the other language is spoken, it may also give confidence to the individual that if a foreign job assignment warrants learning a new language, the individual will be able to do so successfully. Business organizations may also consider an individual's foreign language skills in the selection process for foreign job assignments. The individual perceptions of other cultures and the desirability of language and cultural skills in successful expatriates, in turn, may make the individual more interested in and desirous of seeking a foreign assignment.

Table 5. *Difference in Mean Response by Language Ability*

	Knowledge of Country			Desire for Assignment		
	Difference by Language			Difference by Language		
	Peru	Chile	USA	Peru	Chile	USA
Australia	-0.30	0.04	0.01	-0.11	0.24	0.80 **
UK	-0.01	0.36	0.51	0.27	0.25	0.65 *
Canada	0.04	-0.03	0.20	-0.11	-0.16	0.58 *
Germany	0.35	0.06	0.49 *	0.15	0.30	0.40
France	0.26	0.26	0.52 **	0.28	0.11	0.83 **

Japan	0.16	0.00	0.48 *	0.18	-0.03	0.72 **
Mexico	0.07	-0.04	0.58 **	0.24	-0.30	0.60 **
China	0.16	-0.06	0.33	0.41 *	0.02	0.83 **
Russia	0.01	0.36 *	0.13	0.24	0.01	0.23
South Africa	0.03	0.09	0.27	0.21	0.15	0.59 **
India	0.35	0.08	0.42 *	0.19	0.18	0.42
Korea	-0.11	0.08	0.47 **	0.15	1.50 *	0.56 **
USA	-0.49 *			-0.03		

* Significant at alpha=0.05

** Significant at alpha=0.01

DISCUSSIONS

The results of this study clearly indicate that the desire to work abroad is highly correlated to an individual's knowledge about a country. The country knowledge appears to make the student feel familiar with the region and thus more willing to accept foreign assignment there. However, students' interest in jobs abroad is higher among those in Peru and Chile than those in the US. The Latin America is characterized by similarity in culture and language. Students in Peru and Chile could be more willing to work in the region, in countries like Brazil or Argentina. This study did not include South American countries in its list, and therefore, we do not have specific information about students interest in jobs in South America. However, the Peruvian and Chilean students consistently reported higher knowledge and job interests in foreign regions and countries.

The study assumed that the younger students would be more willing to accept jobs abroad, since they do not have to consider family relocation issues. However, this study did not find much support for any age-based difference. This was true for students in all the three countries included in this study. Gender appeared to be a slightly more significant factor in determining differences both in knowledge and job interest variable. However, the gender difference was significant only for a very few regions or country in each of the three student groups. Both men and women are equally interested or disinterested in foreign job assignments. The equality of education opportunity for women, their movement into the professional careers and convergence of roles could account this result.

Knowledge of a foreign language is an important factor among US students in determining their response. The US students with the knowledge of a foreign language indicated higher levels of knowledge about other regions and countries and their willingness to work abroad. This would be expected because the learning of another language also exposes students to the culture, history and the literature of other parts of the world. They would also be more interested in accepting job assignments there. However, this study did not find such "language" effect among Chilean and Peruvian students. The results indicate that the Chilean and the Peruvian students have higher knowledge of, and high interest in working abroad, there was no difference among them in terms of their language ability. Both monolingual and bi/multilingual Peruvian and Chilean students have similar values for the knowledge and job interest variables.

LIMITATIONS OF THIS STUDY AND IMPLICATIONS

This study explores the students, knowledge of other geographical regions and countries and their interest in accepting jobs abroad. It presents the finding for three student groups from the US, Peru and Chile. The study used only a small list of countries to measure students' knowledge and job interest. It did not include any country from South America. Future studied should provide a larger menu option to the respondents. At the same time, an open-ended question asking the students to list countries that they would like to work in, may provide a richer response.

The study focuses upon the willingness of the students to work abroad but it does not concern itself with their ability to succeed in international assignments. Willingness is an important consideration. But future study should also include variables on family factors, foreign residency and ability to adjust to other country business and social environment.

The study focuses upon a group of students at one educational institution in each country. Each group is likely to be quite homogeneous within itself. A study that includes students from several institutions in each country may provide more variations in responses.

References will be furnished by request. Please contact the corresponding author at ramin.maysami@uncp.edu.

IT SOURCING'S RELATIONSHIP TO FIRM COST STRUCTURE AND STRATEGIC POSITIONING

William Richmond

Western Carolina University

Robert Carton

Western Carolina University

ABSTRACT

This paper addresses the strategic impact of the IT sourcing choice by examining the sourcing choices of over 10,000 credit unions between 2000 and 2005. It first examines the impact of the sourcing choice on firm cost structure. Once that impact is established, extra-organizational factors that affect customer benefits are shown to be related to the sourcing decision. It shows that the sourcing choice matters. The IT sourcing approach affects credit union cost structure and is related both to the level of services they offer and to what they pay for deposits. Outsourcing is associated with higher operating costs, not lower operating costs. Outsourcing is also associated with higher service levels. Interestingly, after adjusting for other factors, manual processing is no more expensive than using packaged or custom developed software and using custom developed software is not associated with more services.

INTRODUCTION

It is generally accepted that investments in information technology (IT) can lead to improved firm performance and competitive advantage (Brynjolfsson & Hitt, 1998). To improve firm performance, IT needs to be aligned with corporate strategy (Tallon, Kraemer, & Gurbaxani, 2000). This alignment includes the IT role, structure, and sourcing (Hirschheim & Sabherwal, 2001). Empirical testing of the impact of this alignment on the value of IT investments has, until now, been left for future research. This study is the first large-scale, firm-level econometric analysis of the impact of the alignment of IT sourcing with corporate strategy on firm performance. It is important to understand whether the resources spent on outsourcing decisions are justified by differences in objective, externally observable performance measures and not just management opinion.

It is clear that firms in the same industry take different sourcing approaches for the exact same set of functions. This suggests one of two possibilities. First, sourcing choice does not matter and how IT is sourced does not affect a firm's cost structure. Alternatively, sourcing choice does affect the firm's cost structure, so firms choosing a higher cost approach must obtain some additional strategic benefit based on the sourcing choice.

FOUNDATIONS FOR THE SOURCING MODEL FOR CREDIT UNIONS

To examine sourcing's impact, this research used a large sample of firms in a single industry, credit unions (CUs), in part to eliminate industry influences. Credit unions are a unique form of financial institution, because they are nonprofit institutions that exist to serve their members. Therefore, credit union success is defined by member satisfaction. Member satisfaction is a function of the unique benefits they receive from the services and the products available and the customer cost for those products and services. The products and services offered by credit unions are available from many other financial institutions, such as banks and savings & loans. Therefore these are relatively commoditized products and services; consequently competitive advantage comes primarily from lowering customer cost.

Direct customer costs are the prices the credit union charges for loans and pays for deposits (an opportunity cost for members). Member transaction costs are driven by key CU strategic decisions including the number of products to offer, the number of channels through which the products are offered, and the number of services supported electronically. Although there are other factors that affect members' transaction cost, the three identified for this research are closely tied to the IT sourcing choice.

IT sourcing decisions directly affect operating costs, since the costs of the IT function are a component of total operating costs. The sourcing decisions also indirectly affect operating costs, since IT supports and enables the credit union's processes for providing its products and services. The credit union's ability to offer new products,

new channels and new services depend on IT's ability to implement and operate the systems to support the new products, channels and services.

This model asserts that the credit union's sourcing choice will affect its operating costs. Credit unions whose primary goal is to lower operating costs will select outsourcing and they will have the lowest operating costs (all else equal), followed by those that use partial outsourcing, followed by credit unions that insource. Thus, the initial hypothesis is:

Hypothesis 1: The sourcing approach affects credit union operating costs, with outsourcing lowering operating costs and insourcing raising operating costs, and a combination of the two being higher cost than outsourcing, but lower cost than insourcing.

Accepting hypothesis 1 implies that some approaches to sourcing IT result in (or are related to) higher operating costs for a given level of services. For credit unions to use these higher cost approaches, there must be some effectiveness benefit. Thus elements that affect *customer* cost are strategic.

Hypothesis 2a: The sourcing approach is related to increased number of services measured by: number of electronic channels, number of services supported electronically, number of loan products offered, number of deposit products offered with the most channels, services and products being offered by credit unions using insourcing and the fewest being offered by credit unions that outsource their core processing

Hypothesis 2b: Credit unions can lower customer cost through product pricing. The sourcing approach is linked to prices, with lower loan prices and higher deposit prices being associated with outsourcing (because they can pass on the lower operating costs) and higher loan prices and lower deposit prices being associated with insourcing (because they must recover the higher operating costs), and a middle level of prices associate with a combined sourcing approach.

METHODS, MODELS, DATA AND ECONOMETRIC ISSUES

Two different sets of regression models were constructed to examine the hypotheses. A fixed effects model was used because the research involved panel data and the data set covered the entire population of credit unions (Hsiao, 2003). The first set of models is used to test hypothesis 1 and examined the impact of IT sourcing on credit union operating cost. The second set of models is used to test hypotheses 2a and 2b and examined the credit union decisions and pricing. The models are:

Operating Cost (OC) = $f(\text{credit union demographic variables, credit union structure variables, credit union decision variables, IT sourcing choice})$.

Decision/Pricing = $f(\text{credit union demographic variables, credit union structure variables, credit union decision variables (excluding the dependent variable), IT sourcing choice})$.

To assess the impact of IT sourcing strategy on operating costs, this paper follows many of the econometric IT outsourcing and banking productivity studies by using a Cobb-Douglas functional form. A number of models were compared and a series of tests conducted to verify the model validity. The hypotheses were validated using publicly available data. Credit unions are required to submit call reports to National Credit Union Administration (NCUA). This research used call report data for the years 2000 through 2005. The sourcing choice identified by the credit unions in their call reports was the key variable of interest in this study. Credit unions have four primary choices for supporting their processes. These are: Manual System, Vendor Supplied In-House System, Vendor Online Service Bureau and CU Developed In-House System.

Credit union structure data included variables on the credit union size, physical capital, labor rates as well as the number accounts and amount of deposits and loans (Berger & Humphrey, 2005). Credit union decision data included the number of deposit and loan products, the number of channels through which it delivered its products, the number of services provided electronically directly to the member, and the price of loans and deposits.

RESULTS

The results for the regressions where the model including the sourcing variables were superior to the model without the sourcing variables and where at least one sourcing variable was significant are shown in Table 1. Hypothesis 1 can be rejected. Specifically, all else being equal, complete insourcing or using packaged software or even manual processing did not affect operating cost. However, using an ASP – outsourcing –significantly raised operating cost. Since the model included covariates for the number of services, number of channels, and the number

of deposit and loan products, the cost impact due to these factors is accounted for separately and the sourcing approach affects operating cost over and above these factors. This contradicts much of the justifications given for outsourcing in the trade press and in prior research (e.g., Ang & Straug, 1998) – to lower costs.

IT sourcing affected the number of channels (both per member and total) and the price of deposits (both per member and total). Therefore, the notion that credit unions have different strategic objectives and select an appropriate IT sourcing approach (H2a and H2b) is supported. All else equal, credit unions using outsourcing (an ASP) offered the most channels for accessing their services (coefficient = .0302, $t = 4.57^{***}$) as well as the most channels per member (coefficient = .0000466, $t = 3.78^{***}$). Note that *** indicates the coefficient is significant at the .001 level. ** indicates it is significant at the .01 level, and * indicates it is significant at the .05 level. Sourcing was also related to the prices that credit unions pay for deposits, but not what they charge for loans. Credit unions using an ASP (outsourcing) pay less for deposits than do credit unions using other sourcing approaches.

Table 1. *Empirical Results*

	Per Member Analysis			Total Analysis		
	Operating Cost	Number of Channels	Price of Deposits	Operating Cost	Number of Channels	Price of Deposits
R-Squared	0.595	0.501	0.125	0.977	0.872	0.091
F(19,45715)	3361.51	144.31	407.21	3475.31	698.72	442.2
Prob > F	0	0	0	0	0	0
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Packaspcust	-0.013	-0.00007	0.039	0.012	-0.023	0.039
Packasp	0.013	0	-0.011	0.012	0.002	-0.01
Asp	0.024***	0.00004***	-0.001**	0.022***	0.031***	-0.002**
_cons	0.965***	-0.00033	0.549	3.641***	-0.544***	0.695

SUMMARY, DISCUSSION AND CONCLUSIONS

Sourcing matters. How credit unions choose to source their IT function affects their cost structure and is related both to the number of channels through which they provide services and what they pay for deposits. The sourcing decision is driven by strategic ends of the organization.

IT sourcing choice affects credit union cost structure which implies, not surprisingly, that different credit unions use different strategies; otherwise, they would all migrate toward the least cost sourcing approach. Surprisingly, outsourcing is associated with higher, not lower, operating costs. This contradicts earlier studies that asserted that firms should outsource to lower their costs. The higher cost due to outsourcing was not due to credit union size since this was controlled for both with covariates for assets and normalization based on the number of members.

The strategic reasons that credit unions outsource their IT must be to obtain other member benefits. We argue that credit unions loan and deposit products are commodities, so they attempt to lower overall customer costs as a means of achieving competitive advantage. For those credit unions that outsource their IT, customer cost reductions could be achieved through increased convenience by offering more distribution channels for their products. This would lower member travel cost as well as reducing the time to conduct transactions – both lowering member transaction cost.

The higher costs associated with using an ASP (outsourcing) appear to be transferred, at least in part, to the customer through lower interest rates paid on deposits. This is reasonable since the member uses more deposit related services (and these services more frequently) than loan product related services. They are willing to pay for the additional channels to support their deposit products, but unwilling to pay higher loan rates for a product (loan) that they decide on once and then require minimal ongoing service.

In the end, the results of this study raise more questions than they answers. They demonstrate the need for considerable research on the impact of sourcing choice on competitive advantage to truly understand the impact of sourcing choice on organizational performance. There is a need to identify the connection between IT and intermediate strategic objectives and between those intermediate objectives and the final firm performance. This will

require the existence of a full organizational model linking IT decisions to strategic and operational drivers and these to firm performance. Looking at overall organizational performance will not be enough; otherwise there is an implicit assumption that the strategic choices are correct.

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OPTIMIZING TECHNOLOGY MANAGEMENT FOR FISCAL EFFICIENCY

Jason G. Caudill
Carson-Newman College

ABSTRACT

The business climate of today is an increasingly difficult one. The declining availability of financing, declining consumer spending, and other economic issues are forcing companies to reduce costs wherever they can while still maintaining their operations. With some relatively simple technology substitutions or strategic initiatives, companies can save large amounts of money while maintaining or even enhancing their functionality.

INTRODUCTION

As economic conditions continue to challenge business organizations of all types it is increasingly important for firms to minimize their expenses while at the same time maintaining their effectiveness. Technology is a critical, but admittedly expensive, component of many modern business environments. As a large cost category, improvements in technology efficiencies can positively affect a firm's bottom line. There are many different ways to accomplish such savings, dependent in part on what category of technology is the focus of the cost-saving effort.

DEMAND FOR COST SAVINGS

The current recessionary period of 2008 to the present is, for many, the worst economic crisis of their lifetime. News reports on a literally daily basis show just how serious the situation is, with major corporations and small local firms reducing headcount, scaling back salaries, and doing all manner of other things to minimize costs in hopes of surviving until an economic recovery can be achieved. Doing more with less has become a necessity for survival.

One of the time-honored methods for reducing costs is to increase operating efficiencies. This is often seen in the history of manufacturing and other industrial organizations, but efficiency improvements can be achieved in a variety of different business models. In any competitive environment, but particularly in times of economic difficulty, efficiency can be the difference between a company remaining solvent and failing. This may be even more true in a time of plummeting consumer confidence where many companies are facing the necessity of deeply discounting their products and services to attract customers.

Coupled with, but somewhat contradictory to, this interest in efficiency is the continued increase in the overall cost of technology for many firms. While it is true that the appropriate application of technology can improve operating efficiencies it is also true that technology remains an expensive proposition for companies, from hardware to software to documentation and training expenses. In fact, some industry experts speculate that the one sector of IT consulting to do well in the near term will be focused on helping companies reduce their IT expenses (Greenstein, 2008). One of the greatest potential challenges for cost-cutting efforts is how to incorporate technology into a company without investing more money than is reasonably available in a capital-scarce environment. Solutions to how to achieve savings in the integration of technology depend, in part, on what type of technology is being utilized.

TECHNOLOGY CATEGORIES

Business technology certainly includes the ubiquitous personal computer and its related software, but there is far more to technology than just the computers that individual employees physically interact with on a daily basis. The different categories of technology are normally used and managed by different members of the organization, but for any of them to work towards the goal of organizational efficiency all the parts have to work coherently towards comprising the whole.

Personal computing resources in the form of both hardware and software are probably the technology components most often encountered by workers. The initial investment in computer hardware can be very expensive and necessary periodic upgrades make this hardware cost a recurring cost. While the cost of hardware can not be entirely avoided there are methods for minimizing its impact on the overall operating budget of the organization.

With personal computer hardware in hand the next step is to load the hardware with appropriate software. A commercial office suite alone can be several hundred dollars, and if industry-specific programs such as desktop publishing or three dimensional rendering programs are added to that office suite costs very quickly escalate. Add to these requirements programs such as mail clients, online calendars, other groupware applications, and web editors and the list of necessary software greatly expands.

Server resources are the next step in the hierarchy of business technology. For many of the more advanced applications to function they require a networked system to support the user interface that is present on personal computers. The server side, much like the personal computers, is comprised of both hardware and software components. While servers may not have the diversity of unique applications seen on a multi-use personal computer there are many advanced functions that a server needs to host. At times, there may be a requirement to have multiple servers to perform multiple unique functions. These are issues of both hardware and software, some of which can be solved simultaneously.

When a company has successfully assembled all of their necessary hardware and software resources the job of creating and executing information technology systems for the firm is not complete. Once assembled, technology resources must be properly managed to function properly. This job begins with the initial installation and configuration of technology resources and continues through the eventual phase-out and replacement of resources.

SAVINGS BY CATEGORY

Just as the different categories of technology perform different functions, so too do the different categories have different potential savings, with different techniques used to generate those savings. The important fact, however, is that at each and every level, in each and every category, of technology the potential exists for savings. When every dollar counts every potential avenue must be explored.

To begin there is the question of how to save money on hardware. Some issues are very non-technical and are often seen. Slowing down the rotation of installing new machines, for example, stretches out the time periods in between hardware purchases and even achieves an overall savings by investing less total money in hardware. Similarly, delaying or even refusing upgrades to software or installation of software to certain computers can reduce the costs. Neither of these common solutions is ideal. By delaying upgrades or refusing to provide technology access to certain employees or certain parts of a company the firm is, in effect, eroding their competitiveness in relation to technology. To help remedy this situation, there are several different approaches to achieving cost savings at the personal computer level.

Hardware is, perhaps unfortunately, not an item that can be eliminated. In order to use personal computer technology employees have to have access to personal computers. There is, however, an excellent alternative to purchasing and maintaining high-end, high-dollar personal computers for every individual. Thin client technology allows older, slower machines to function as fast, reliable personal computers by performing processing tasks on one very good computer that acts as a host. Briefly, this process works by configuring the host, the one very good computer in the system, as a machine that holds programs, stores data, and processes tasks. The older, inexpensive or even free computers, the clients, connect to the host. The person using the client computer interacts with that machine just as if they were working on a traditional personal machine. What the user does not see, however, is that processes are being run on the host, not the client. The difference to the user is virtually nonexistent. The savings, however, can be considerable. These potential savings will vary depending on the available license agreements with the software provider, but could be very large.

Configuring a thin client network is admittedly not an entirely free process. In order to begin this process there must be hardware available. The client computers may be much less expensive than new machines, but they still must be acquired. Also, one high-quality machine must be available to serve as the host. Once the machines are in place, a network must be in place to connect the hosts and the client. If a network is already installed then this is a minimal issue. If, however, there is not already a network in place then the installation of a network infrastructure can be very expensive. Finally, there must be an individual, either in the company or hired on a contract basis, to initialize and configure the network. If this skill set is not already present in the company there can be a large cost involved in hiring an outside contractor to do the job or acquiring a new employee capable of doing the work. As with any investment, installing a network of thin clients has the potential, as opposed to the guarantee, of generating positive returns. Each organization must carefully plan and assess their own unique situation to determine if a thin client network will yield a net savings for their company.

The software side of personal computer savings can be much simpler than hardware. There is a wide array of applications that are available for free or for minimal cost that can substitute for expensive commercial software applications. Perhaps the largest component of these applications is in the field of open source software.

Open source software is software written and distributed by independent programmers, most often through the GNU public license. Open source software can not be sold, and the source code, the programming language that comprises the program, is distributed freely along with the software. The availability of source code allows for a community of programmers to collaborate on the development and improvement of the software. There are many different open source software packages that can be of use to a business.

OpenOffice may be the most well-known open source software program. OpenOffice is a full-featured, open source office suite including a word processor, spreadsheet program, presentation program, and database. OpenOffice is available for both Windows and Mac operating systems. Very importantly, OpenOffice provides users with the option to read and save in most commercial file formats. This feature ensures that a business using OpenOffice can maintain communication and the exchange of files with other businesses using popular commercial software packages.

While modern word processors do have some integral desktop publishing capabilities they are still not a substitute for a dedicated desktop publishing program. In the open source world there is a good option, Scribus. Scribus supports many advanced desktop publishing features and should be sufficient for most business needs short of professional publishing and layout. For a company to produce their own company newsletters, flyers, and other business documents a program like this can save considerable time and, as open source, can be acquired at no cost.

For a company needing three dimensional rendering software it is highly likely that they will need to purchase one of the dedicated commercial programs to do the work. There is an alternative option, however, which may suffice. Google SketchUp is a three-dimensional imaging program distributed by Google. There are currently two different releases, a free version and a professional version that requires a license fee. The fee for the professional version is still much lower than what would be paid for one of the main commercial three-dimensional rendering products, but there is still a fee per license. The decision to utilize this type of system will be something to debate for each firm; while the savings could be very large the question of functionality and interoperability would have to be addressed.

The realm of online media can also involve very expensive software. For websites using graphics, embedded media, cascading style sheets, or form functions many people prefer to use what is commonly referred to as a What You See Is What You Get (WYSIWYG) editor. Commercial applications can be very expensive, but again there is an open source alternative. Kompozer supports many of the advanced features for web page creating, including forms and cascading style sheets.

For e-mail functionality the best available answer may again be Google. There are Gmail applications for organizations, some available for free and some paid services, that may be much less expensive than other alternatives. Again, there are significant differences in functionality between the free and paid editions of Gmail for organizations. Each organization will have to make a decision about the value of the services, but there are alternatives. In addition to e-mail, Gmail for organizations also offers online calendaring functions.

The full spectrum of free or reduced cost software that might be useful to a business reaches far beyond the scope of this paper. The point, however, is to highlight that it is possible to achieve cost savings in technology by utilizing available substitutes for technology. Critical to the implementation of these software packages, however, is extensive research and testing. A company must be positive that its software will work properly and reliably in the environment for which it is intended. The potential losses from failed software choices may be very high due to business interruption, contractor fees to redesign and reinstall a system, and other costs. With that in mind, a business should definitely research and implement appropriate cost-saving software applications.

If an application does not have a suitable open source or reduced cost substitute available there are still other options to reduce a company's total software expense. Many commercial programs have different license options available at the time of purchase. Depending on the type of license available and the type of user environment the company is operating in there may be a cost savings opportunity.

For software that will be installed on every computer a business owns, or even on a large number of them, a company may be able to save money by purchasing a site license instead of individual user licenses. Site licenses are expensive, but provide the company with the right to install the software on all of their computers in a single location, versus a only those computers with an individual license. If the cost of the proper site license is lower than the cost of the total individual licenses needed then a savings can be realized. Another option that may be useful is a concurrent use license. This is somewhat similar to a site license in that it allows software to be installed on all of a company's computers, but the license limits how many concurrent instances of the software can occur. Basically, every computer has access to the software but only a set number of them can use the program at

the same time. This usually requires the additional use of a program to monitor software use on the network such as KeyServer. This option is best for software that may need to be available in most locations but is not frequently used by everybody at once. The one drawback to keyed software is that users must be connected to the network in order to have permission to use the software, but for internal uses in an office environment this requirement is usually not an issue.

As seen here there are many different ways for a business to reduce its cost for personal computers. Some solutions may work better for some situations than others, but given the many different ways to achieve savings there should be an opportunity for every company to reduce its budget for personal computer expenses.

SERVER APPLICATIONS

On the other side of the computing spectrum from personal computers are servers. Increasingly, even smaller firms are maintaining their own servers for internal company use or even as web hosts for company e-commerce or other applications. How these servers are configured and operated can greatly affect their overall cost.

The first potential step in reducing the cost of a server or a group of servers is the type of operating system (OS) to install and use on the server. This may be somewhat of a balancing act as spending less on the operating system may lead to investing more in the operators, but as is the case with many other cost-saving opportunities this will vary by organization and situation. Many servers today are operating on a Linux OS that is available as an open source distribution. There are different Linux operating systems available, but the core of the systems, the Linux kernel, is the same. Using the Linux OS can eliminate the cost associated with purchasing a license for a commercial server OS. Granted, the Linux OS will also not include the support and other features included with a commercial OS, but the trade-off may be worthwhile to preserve precious capital resources.

The other potential cost-saving opportunity for servers involves, to an extent, both hardware and software. In many computing environments it is necessary to have multiple servers to handle different processes. Traditionally, this has meant that a company would have to maintain not only multiple installations of an OS but also multiple pieces of hardware. Current technology, however, is moving away from this old model when practical. The use of virtualization software allows a company to run multiple virtual servers on a single physical server to reduce hardware cost (Oguchi and Yamamoto, 2007). Doing this is not an elementary undertaking, but it may be worth the investment to businesses to save on the cost of purchasing, maintaining, and providing utilities to multiple pieces of hardware in the server room.

Server virtualization is a relatively new and rapidly growing topic in technology management. As such, it is beyond the scope of this paper to delve into the details of exactly how the process is administered, but the general concepts can be useful in guiding a company towards the investigation of the technology. Basically, server virtualization uses a software package to create multiple virtual servers, sharing physical resources, on a single physical server. This enables a single physical server to take the place of what in the past had to be multiple physical servers. By reducing the amount of hardware purchased a net savings in server operations can be accomplished.

Beyond simply reducing hardware cost, server virtualization can also be utilized to make server operations more stable (Loveland, Dow, LeFevre, Beyar, and Chan, 2008). With the proper software it is possible to run inactive virtual servers on different physical servers parallel to the active server. In the event of a failure of the active server the inactive virtual server can be switched over to take the place of the active server. Depending on the configuration of the system this may be done manually by an administrator or the system may automatically make the change when the failure of the active server is detected.

There are commercial software packages available to support server virtualization but there is also an open source solution, VirtualBox. As is the case with many of the other open source solutions a company should carefully evaluate what functions they need for their own situation before making a software choice, but if VirtualBox will satisfy the company's need then a large savings on software licenses can be realized.

ADMINISTRATION

Perhaps the final step in managing and reducing the costs of technology for a business is in the administration of the technology resources. Properly designed and managed technology resources require less maintenance and fewer labor hours. At the most basic level this improves system availability and stability and as a result reduces downtime. Reduced downtime translates to reduced loss of productivity which ultimately reduces cost. As the best level, proper administration can create less demand for human resources and lower the total cost of compensation.

Possibly the most important, and ideally the first, step in proper system administration is the use of drive imaging. This is the practice of fully configuring everything about a computer system on a single system, testing that system, and ensuring that everything is as it should be. Once this is done an image is made of the drive, basically a recording of all the information on the hard drive. This image can then be installed in a single step on other machines that are identical to the machine on which the image was created. By using drive imaging an IT administrator can install and configure a system once, instead of having to do the same series of tasks repeatedly for each computer. This can save a great number of labor hours for just a few computers, and the more computers that require configuration the more hours are saved.

The savings go beyond the initial installation. With a fully configured drive image on file a computer that fails and has to be reconfigured can be very quickly restored with a drive image instead of having to go through a manual reconfiguration. This is another practice that can help to reduce downtime and the related lost productivity.

To keep systems that have been properly configured stable it is critical to have proper security standards in place. For a reliable and stable system this requires more than just updated versions of antivirus and anti-spyware software. If users do not require installation privileges on their computers then the accounts for users should not allow for installation privileges. If a user's account does not allow for the installation of software then malicious, self-installing programs that occur during a user's session will not be able to install themselves. This also prevents users from manually allowing damaging events to occur while working online or pursuing other computing activities.

The next step in security is to move to a security software package using virtual partitions to guard against system changes. Two of the most popular commercial applications are DriveShield and DeepFreeze. What these programs do is place a virtual partition over the physical hard drive partitions of the computer. Any changes that are made by the user write to this virtual partition. When the computer restarts this virtual partition is deleted and the computer is back to its original state. Administrators have the option of protecting some partitions of a hard drive and not protecting others with this process. For example, the c: partition of the hard drive, containing programs and having the privilege to execute programs, could be protected while a d: partition could be left unprotected but without the privilege to execute programs so users have a location to store files. By securing computers with this method users can have more freedom in what they do with the computer while administrators have more assurance that their computers will remain stable and available.

By properly administering technology resources it should be possible to optimize the use of available human resources. With stable, efficient systems in place fewer labor hours will be required to keep a company's computers operating. With fewer labor hours required the total cost for technology staff should be minimized. When this minimized labor cost is combined with increased efficiencies and decreased downtime the total cost savings for a firm can be considerable.

Total Savings

Each organization may realize different levels of savings by optimizing the efficiency of their technology operations. What is perhaps most important is not so much the total savings, but the fact that by implementing the appropriate changes any organization has the opportunity to realize some savings through proper technology management. It is critical for each business to examine their own operations in detail and choose technology management strategies accordingly. Doing so at any level can improve a company's bottom line.

CONCLUSION

There are many different avenues of cost savings explored in this paper. Some may work for a particular organization and some may not, but every organization should be able to find some cost savings in their systems. As American, and world, businesses struggle through the current recession any savings that can be achieved may truly be significant. To paraphrase Benjamin Franklin and describe the current situation, perhaps a penny saved is a job retained.

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ANGELO'S TEACHER'S DOZEN, THE INVERTED CLASSROOM, AND MIND MAPS: MOVING BEYOND CHALK AND TALK

William Doyle Smith

The University of Texas at El Paso

ABSTRACT

Although there are a variety of teaching methods for use in the undergraduate introductory economics course, the dominant style is lecturing and using the chalkboard to write text, equations, and graphs. In an earlier paper, the author examined the applicability of Thomas Angelo's "Teacher's Dozen" to introductory economics and found that the "Teacher's Dozen" are very applicable to undergraduate economics classes and offer excellent opportunities to improve teaching and learning in the economics classroom. This paper compares Angelo's "Teacher's Dozen" with "Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment" and "Mind Maps as Classroom Exercises". Both the "Inverted Classroom" and "Mind Maps" echo Angelo's call for a greater collaborative relationship between students and between students and the instructor. The "Inverted Classroom" and "Mind Maps" also support teaching that is responsive to diverse learning styles in an effort to reach learners with different and diverse personalities and strengths.

INTRODUCTION

Despite differences in institutions, class sizes, and teaching loads, the dominate teaching style for undergraduate introductory economics classes is lecturing and using the chalkboard to write text, equations, and graphs, while assigning reading from a standard textbook (Becker, 1997; Benzing & Christ, 1997). In particular, cooperative learning techniques in which students work together in the classroom are noticeably absent in economics classes, particularly at research universities where large classes tend to be employed (Becker, 1997). This view was re-enforced by Becker and Watts (2006) in their 2005 survey that indicated that although there was evidence of the slow growth in other teaching methods, standard lectures and chalkboard presentations still remain the dominant teaching style in all types of economics classes.

Becker (1997) suggests that the absence of cooperative learning in the classroom is due in part to the idea that professors believe cooperative learning techniques require large blocks of time and not all students tend to get engaged in group activities. Becker and Watts state that the failure of undergraduate economic classes to use available alternative methods reflects an "equilibrium in which teaching efficiency, if not effectiveness, has been achieved" (Becker & Watts, 1996, pp. 451-452). Becker and Watts also suggest that the lecture and chalkboard approach to undergraduate introductory economics classes is based on the traditional view that sees the teacher as a "preacher" and the student as passive receptacles into which great thoughts and wisdom are poured (Becker & Watts, 1995, p. 692). In addition, the dominant style of testing in undergraduate introductory classes is the multiple-choice exam (Becker & Watts, 1996). Walstad & Becker (1994) suggest that multiple-choice exams tend to be popular because they allow for a wider sampling of the content because more questions can be given in a testing period and because they offer a greater efficiency and reliability in scoring than an essay exam.

PURPOSE AND SCOPE

Given the need for undergraduate economics classes to move away from the traditional "chalk and talk" presentation and toward a more cooperative interactive learning technique that would be more responsive to different learning styles, this paper compares the basic ideas and central themes found in Angelo's Teacher's Dozen with two additional articles concerned with teaching pedagogy, "Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment" (Lage, Platt, & Treglia, 2000) and "Mind Maps as Classroom Exercises" (Budd, 2002). As was the case with Angelo's principles, the "Inverted Classroom" and "Mind Maps" call for and speak to the importance of interactive cooperative learning in the classroom and call for a greater collaborative relationship between students and between students and the instructor. Specifically, it is the intent of the paper to determine if there are common pedagogical ideas and activities found in all three articles that can be used to improve and enhance the quality of teaching and learning in the undergraduate economics class.

ANGELO'S TEACHER'S DOZEN

In Thomas Angelo's excellent article, "A 'Teacher's Dozen': Fourteen General, Research-Based Principles for Improving Higher Learning in our Classrooms" (Angelo, 1993), the author maintains that to effectively and efficiently promote higher learning, faculty need to know something about how students learn. Angelo suggests that even though our knowledge of teaching and learning is incomplete and there is much to be discovered, we do know a great deal about how students learn and there are some "general, research-based principles" that faculty can apply in the classroom to improve teaching and learning. Angelo's "teacher's dozen" represent his own list of fourteen principles to help faculty improve the quality of higher learning in their classroom. (1993, pp. 3-4) (See Exhibit One for a listing of Angelo's fourteen principles.)

Although the majority of Angelo's principles call for and speak to the importance of interactive cooperative learning in the classroom, the fourteen principles appear to cluster around six main themes. Those major themes are (1) the importance of interactive cooperative learning; (2) the importance of testing and assessment; (3) the importance of motivating the student; (4) the importance of setting high goals and expectations; (5) the importance of instructional support; and (6) the importance of focusing the student's attention (Smith, 2002). (See Exhibit Two for a listing of how Angelo's fourteen principles cluster under the six main themes.)

ANGELO'S RECOMMENDED ACTIVITIES

Given Angelo's fourteen principles, certain classroom activities would appear to improve what we teach, how we teach, and the assessment of the educational outcomes. These activities would include group activities and group assignments, in-class student participation, use of the "minute paper", and continuous and frequent feedback to the students. In addition, Angelo's work would suggest that instructors should also encourage other activities in and out of the classroom. These activities would include the instructor creating an atmosphere of high expectations and achievement in the classroom and encouraging students to achieve those high expectations and succeed, emphasizing the role and importance of goal setting for the students, emphasizing the importance of both time and effort in order to learn and understand economics, and giving students a clear understanding of the type of exams and the type of questions that will be asked. (Smith, 2002, pp. 547-548)

Angelo's principles also suggest that instructors should develop a "personal touch" with the students. Activities that could foster this personal touch would include interacting with students whenever possible, encouraging students to seek help and tutoring whenever necessary, making themselves available to students, surveying students to determine what they already know or don't know about economics, and surveying students to determine what their personal goals are for the course. (Smith, 2002, pp. 547-548)

THE INVERTED CLASSROOM

In their article, "Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment" (Lage, Platt, & Treglia, 2000), the authors describe a method of teaching introductory economics that was used at Miami University that they believe can appeal to all types of learners. To the authors, inverting the classroom means events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa. The inverted classroom sets out to "outline a strategy for teaching that appeals to a broad range of learning styles without violating the constraints typically faced by instructors at most institutions" (Lage, Platt, & Treglia, 2000, p. 31).

The general principle behind the concept of the inverted classroom is to provide a menu of options that the students can use in learning. This allows the instructors to focus on having the student prepared for discussion, while allowing students to choose the best method for them to reach that outcome. Learning technologies, particularly multimedia, provide new opportunities for students to learn, opportunities that are now possible with other media. (Lage, Platt, & Treglia, 2000, pp. 31-32) (See Exhibit Three for a listing of the Procedures for the Inverted Class.)

The Inverted Classroom and Angelo's Principles

Although each of the fourteen principles appear to be reinforced by the inverted classroom, perhaps the major strength of the inverted classroom is the tremendous opportunity for interaction between students and between students and the teacher. This opportunity for both faculty-student interaction and group work appears to be the most important common pedagogical principle that can be used to improve and enhance the quality of teaching and learning in the undergraduate economics class. This is particularly significant because although Angelo's fourteen

principles appear to cluster around six main themes, the majority of Angelo's principles do speak to the importance of interactive cooperative learning in the classroom.

While maintaining the strengths of the traditional classroom and without sacrificing course coverage, the inverted classroom explicitly incorporates experiments and group work exercises for "collaborative learners". The inverted classroom also compares favorably with Angelo's principles by allowing for almost instant and continuous feedback in the sense that instructors monitor performance and comprehension on a daily basis. The student can immediately clear up any confusion and the process helps to develop communicative skills and a command over subject matter through group interaction. Through the tremendous amount of faculty-student interaction, instructors can focus the attention of the students and make them aware of the importance of the material in many ways, while offering instructional support at every stage and step of the inverted classroom.

With the tremendous interaction between students and instructors, the inverted classroom strongly supports Angelo's tenth principle, "Learning to transfer, to apply previous knowledge and skills to new contexts, requires a great deal of practice". With the inverted classroom, students see and experience economics principles through the experiments and lab work. Specifically, the instructor can continuously direct the student's attention between the general and the specific and, at the same time, give examples of the same concepts or principles through the viewed lectures, the economic experiments or labs, the worksheets and through the review questions offered at the end of class.

The inverted classroom concept, by its very nature, encourages both high expectations and achievement on the part of the student. Under the inverted classroom concept, instructors can help to motivate students by giving them specific examples of the value and usefulness of what they are learning and assist in making connections between short-term and long-term course goals. The inverted classroom instructor can positively motivate and influence the student's beliefs and expectations via the viewed lectures, the classroom discussions, the economic experiments, the lab assignments, the worksheets and the review questions, and the homepage and the internet chat room.

THE MIND MAP

The stated motivation of the author for using Mind Maps is the use of active learning and to support classroom teaching that is responsive to a variety of different learning styles. To the author, the Mind Map exercise is an example of an active and collaborative learning tool that instructors can use to move beyond "chalk and talk" in order to enhance learning. A Mind Map is a graphical drawing created by small groups in which the major ideas and categories radiate from a central image or concept, while lesser ideas or categories are portrayed as being smaller branches of the larger branches. Each branch is labeled with a key word or image. Lesser items or themes within each category stem out as lesser branches from the more relevant branches. As with traditional outlines, the Mind Map is based on organizing information via hierarchies and categories. (Budd, 2004)

But unlike traditional outlines, the ideas and categories flow out from a central image or theme in a free-flowing, yet organized coherent manner. The use of Mind Maps helps to emphasize the importance of associations between key economic concepts. During the Mind Map exercise, the instructor circulates among the small groups in order to help and prompt their thinking, to offer continuous feedback to the groups, and to interact with the students on a more personal manner than traditional lectures. (Budd, 2004)

Mind Maps, however, are not a teaching method with which to teach an entire course but is intended to promote the reflection and application components of learning, not the initial instruction. For example, the Mind Map is not appropriate for replacing the usual graphical analysis associated with introducing supply and demand. After the traditional presentation, however, creating Mind Maps helps the student to think more carefully about the determinants of supply and demand and enhances their understanding.

Example of the Mind Map

As an example of a use of the mind map, the author describes the determination of housing prices, with the two major branches being supply and demand. Four lesser branches flowing from the larger supply branch would be demographics, land availability, regulation, and construction costs. And from the smaller construction costs branch, even smaller branches would flow for such costs as lumber, windows, drywall, and labor. Lesser branches flowing from the larger demand side branch would be lesser branches for location, expectations, features, and affordability. Even though the categories and determinants for housing supply and demand could be presented in a traditional outline form, the author believes one of the major advantages of the Mind Map is that the use of single words for the branches encourages students to reduce key ideas to their core (Budd, 2004, 36).

The Mind Map and Angelo's Principles

Like the Inverted Classroom, a major strength of Mind Maps is the tremendous opportunity for interactive collaborative learning and the interaction between students and between students and the teacher. Mind Map exercises are considered active learning because the students are creating their own Mind Maps, not simply looking at the one created by the instructor. Mind Maps are considered collaborative because the Mind Maps are created as a small group effort and a collaborative relationship between students and the instructor can be established as the instructor helps with the construction of the Mind Maps (Budd, 2004, pp. 37-42).

Also like the Inverted Classroom, the creation of Mind Maps allows students to interact in small groups which facilitates a deeper analysis of the topic through brainstorming and allows students to voice their ideas, support their ideas with evidence, listen to other view points, and gain confidence. With the creation of Mind Maps, instructors are allowed to continuously direct the attention of the student between the general and the specific and present examples of the same concepts or principles through traditional lectures, worksheets and through end of class review questions. Mind Maps also support both Angelo's principles and the Inverted Classroom by allowing for continuous feedback on the part of the instructor as they monitor the creation of the Mind Maps. Through faculty-student interaction, instructors can offer instructional support at every stage of the Mind Map and focus the attention of the students and make them aware of the important economic concepts and content. This also allows the instructor to correct any confusion on the part of the student; in addition, the group interaction helps the student to develop communicative skills and a command over the subject matter. Through interacting with and guiding the student via the Mind Map, the instructor can also motivate the student and encourages both high expectations and achievement.

CONCLUSIONS

In conclusion, it seems evident that there are common pedagogical principles and ideas found in all three articles that can be used to improve and enhance the quality of teaching and learning in the undergraduate introductory economics class. Like Angelo's Teacher's Dozen, both the Inverted Classroom and the Mind Maps articles incorporate active and collaborative learning techniques that represent alternative techniques beyond the traditional "chalk and talk" undergraduate classroom lecture. As was the case with Angelo's principles, the Inverted Classroom and Mind Maps call for and speak to the importance of interactive cooperative learning in the classroom and call for a greater collaborative relationship between students and between students and the instructor. Angelo's Teacher's Dozen, the Inverted Classroom, and Mind Maps call us to move beyond the traditional "chalk and talk" presentation and support classroom teaching that can be more responsive to diverse learning styles in an effort to reach learners with different and diverse personalities and strengths.

Exhibit 1. *Angelo's Teacher's Dozen (1993)*

1. Active learning is more effective than passive learning.
2. Learning requires focused attention and awareness of the importance of what is to be learned.
3. Learning is more effective and efficient when learners have explicit, reasonable, positive goals, and when their goals fit well with the teacher's goals.
4. To be remembered, new information must be meaningfully connected to prior knowledge and it must be remembered in order to be learned.
5. Unlearning what is already learned is often more difficult than learning new information.
6. Information organized in personally meaningful ways is more likely to be retained, learned, and used.
7. Learners need feedback on their learning, early and often, to learn well; to become independent, they need to learn how to give themselves feedback.
8. The ways in which learners are assessed and evaluated powerfully affect the ways they study and learn.
9. Mastering a skill or body of knowledge takes great amounts of time and effort.
10. Learning to transfer, to apply previous knowledge and skills to new contexts, requires a great deal of practice.
11. High expectations encourage high achievement.
12. To be more effective, teachers need to balance levels of intellectual challenge and instructional support.
13. Motivation to learn is alterable; it can be positively or negatively affected by the task, the environment, the teacher, and the learner.
14. Interaction between teachers and learners is one of the most powerful factors in promoting learning, interaction among learners is another. (Angelo, 1993)

Exhibit 2. Angelo's Six Major Themes (Smith, 2002)

First Theme: interactive cooperative learning

1. Active learning is more effective than passive learning.
14. Interaction between teachers and learners is one of the most powerful factors in promoting learning, interaction among learners is another.

Second Theme: testing and assessment

7. Learners need feedback on their learning, early and often, to learn well; to become independent, they need to learn how and give themselves feedback.
8. The ways in which learners are assessed and evaluated powerfully affect the ways they study and learn.

Third Theme: motivating the student

13. Motivation to learn is alterable; it can be positively or negatively affected by the task, the environment, the teacher, and the learner.
9. Mastering a skill or body of knowledge takes great amounts of time and effort.
10. Learning to transfer, to apply previous knowledge and skills to new contexts, requires a great deal of practice.

Fourth Theme: setting high goals and expectations

3. Learning is more effective and efficient when learners have explicit, reasonable, positive goals, and when their goals fit well with the teacher's goals.
11. High expectations encourage high achievement.

Fifth Theme: instructional support

12. To be more effective, teachers need to balance levels of intellectual challenge and instructional support.
4. To be remembered, new information must be meaningfully connected to prior knowledge and it must be remembered in order to be learned.
5. Unlearning what is already learned is often more difficult than learning new information.
6. Information organized in personally meaningful ways is more likely to be retained, learned, and used.

Sixth Theme: focusing the student's attention

2. Learning requires focused attention, and awareness of the importance of what is to be learned.

Exhibit 3. Procedures for the Inverted Class (2000)

1. Like the traditional class, the inverted class met twice a week for a period of 75 minutes per session.
2. The course material was divided into topics that corresponded to chapters in the textbook.
3. Students were expected to read a topic in the textbook before the first day of discussion.
4. Students were encouraged to view lectures of the topic being discussed. These lectures could be videotapes of a traditional presentation of the material or a PowerPoint with sound.
5. Students were expected to come to class prepared to discuss the relevant material. The instructor started each class by asking if there were any questions. If there were, the instructor lectured briefly on the area, if not, there was no lecture.
6. The instructor and the students would then conduct an economic experiment or lab designed to give the students an opportunity to see the economic principles in action.
7. The remainder of the class was typically devoted to worksheets and review questions. Students were expected to have completed the worksheets before class.
8. The worksheets would periodically and randomly be collected and graded for completeness but not correctness. The worksheets were simple exercises but the review questions were more difficult and designed to have students apply the concepts being discussed.
9. Students would work in small groups and then present the results to the class as a whole.
10. The course homepage provided students access to additional support materials such as PowerPoint lectures, assignments, old exams, and optional, interactive quizzes on each topic.
11. The homepage also had an Internet chat room where the instructors would be available online to answer any questions.
12. The homepage also had a bulletin board for each section of the course so students could discuss applications of the course material in more detail than the class time allowed. (Lage, Platt, & Treglia, 2000)

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STRATEGIC ALLIANCE POKER: DEMONSTRATING THE IMPORTANCE OF COMPLEMENTARY RESOURCES AND TRUST IN STRATEGIC ALLIANCE MANAGEMENT

Christopher J. Reutzel
Utah State University

Jamie D. Collins
Baylor University

William J. Worthington
Baylor University

ABSTRACT

Strategic Alliance Poker (SAP) provides strategic management instructors with an opportunity to illustrate and discuss the related issues of resource sharing, resource complementarity, and trust in the context of strategic alliances. An adaptation of Sugar and Willet's team poker exercise is used to provide students with the experience of developing trust in a context that encourage resource sharing. SAP provides strategic management instructors with a strategic alliance based exercise that can be used to illustrate effective alliance management and the value creation potential of complementary resources. A discussion of the theoretical background, implementation, implications, and result of SAP is provided in this paper.

INTRODUCTION

While the topics of resource based view and strategic alliances have come to play an increasingly prominent role in strategic management research and practice, pedagogical barriers to student learning of the intricacies of these topics may still exist. While the case method and lectures undoubtedly represent important pedagogical tools, other teaching approaches such as experiential exercises have been demonstrated to enhance and energize student learning. Schneider and Lieb (2004) note that despite the RBV's increased popularity there exist a paucity of experiential exercises illustrating the concepts of the resource based view (see Coff & Hatfield, 2003 and; Sheehan, 2006 for notable exceptions). Additionally, of those experiential exercises that do address the RBV, none to our knowledge address the roles of resource sharing and trust in the strategic alliance context.

In order to address this pedagogical gap, we developed an experiential exercise we term Strategic Alliance Poker (SAP). This exercise was adapted from Sugar and Willet's (2005) Team Poker exercise. Although Team Poker and SAP both highlight the tension between cooperation and competition that exists in contexts which require resource sharing, the learning objectives of SAP differ from those of Team Poker in several ways. For example, Team Poker illustrates the dynamics of cooperation versus competition in the context of work teams. As a result, Team Poker takes a decidedly micro perspective. Contrastingly, SAP takes a firm level perspective to illustrate strategic management concepts regarding strategic alliances. Adapting a firm level perspective enables SAP to illustrate resource based explanations of the synergistic value created through the combination of complementary resources. Additionally, the scoring and game objectives for SAP are distinct from Team Poker. Finally, SAP illustrates the role of trust in fostering resource sharing.

In the sections that follow we discuss the roles played by complementary resources and trust in shaping strategic alliance performance. After, we describe the implementation of the SAP exercise and discuss strategic management concepts illustrated with SAP. Finally, we present the results of student feedback regarding SAP.

The Resource Based View and Strategic Alliances

The resource based view represents one of strategic management's most important theoretical perspectives (Barney, Wright, & Ketchen, 2001). The RBV posits that firm resources and capabilities represent a primary determinant of firm performance. Consistent with this view, the RBV assumes that firms differ in the resources they possess, and that such differences may persist. Recent formulations of the RBV, namely Barney's VRIO framework, posit that valuable, rare, and costly to imitate resources or capabilities coupled with effective organization provide firms with above average economic performance and sustained competitive advantage (Barney & Hesterly, 2008).

Several studies have applied RBV logic to explain strategic alliance formation and management (Eisenhardt & Schoonhoven, 1996). RBV explanations of alliance formation suggest that firms implement strategic alliances to create complementary resource configurations (Gulati, Nohria, & Zaheer, 2000) in which synergies are developed that maximize resource value relative to other potential resource combinations (Das & Teng, 2000). In particular, alliances are vehicles through which firms access and utilize knowledge from their partners (Anand, Glick, & Manz, 2002). Thus, RBV logic suggests that strategic alliances are used to create unique complementary bundles of value-creating resources that individual firms cannot create independently (Ireland, Hitt, & Vaidyanath, 2002).

The Role of Trust in Strategic Alliances

While maximizing firm resource value by bundling them with the complementary resources of others represents a motivation of strategic alliance formation, threats to the potential for strategic alliances to create value do exist. These threats largely stem from incentives for alliance partners to act in their own self-interest at the expense of their alliance partners (Uzzi, 1996). As a consequence, in order to realize the value creation potential of strategic alliances, managers must maximize alliance partner cooperation while minimizing value misappropriation by opportunistic alliance partners. When firms are effectively discouraged from value misappropriation, they have an enhanced willingness to share proprietary information, invest in alliance specific assets designed to facilitate communication, and engage in long-term development activities (White & Lui, 2005). This suggests that the ability to foster trust among alliance partners represents a critical alliance management capability (Ireland et al., 2002), as well as a key determinant of an alliances potential to create a competitive advantage (Kanter, 1994). Accordingly, the ability to effectively coordinate and communicate with alliance partners represents a requisite competence for successful alliance managers.

While the roles of resource sharing and trust have proven fruitful areas for strategic management researchers, they may be difficult for students to understand and internalize when presented solely in lecture or case based media. As a result, we developed SAP which is designed to demonstrate value creation in the context of trust and complementary resource sharing.

THE STRATEGIC ALLIANCE POKER EXERCISE

SAP is used to supplement classroom discussion of strategic alliance management issues. To get the most out of this exercise it is necessary for students to be familiar with RBV logic and to have been introduced to the topic of strategic alliances. Accordingly, we run SAP during or immediately following the session on strategic alliances, preceded by a discussion of the RBV. The overarching goal of SAP is to involve participants in an experiential exercise that reflects the tension between value creation through resource sharing and value misappropriation via resource withholding faced by managers of firms in the strategic alliance context.

Table 1. SAP Learning Objectives

1. Apply the resource based view to the management of strategic alliances.
2. Demonstrate the value of resource sharing in the strategic alliance context.
3. Discuss how complementary resources create value in the strategic alliance context.
4. Illustrate the role of trust in shaping the potential for value creation in the strategic alliance context.
5. Explain the importance of effective coordination and communication in the creation of trust in the strategic alliance context.

The following steps are suggested for achieving the learning objectives of SAP. Step 1: Logistics. SAP requires 45-60 minutes to complete. To begin the exercise students are divided into groups of 4-6 students that are as equally sized as possible. After the groups have been formed the materials required for SAP are handed out to each group. Step 2: Introduction of the exercise. Once the SAP materials have been distributed to the groups the instructor introduces the exercise by discussing its procedures.

Table 2. Procedures of SAP

1. The instructor tells the students that there are two ways to win at SAP. First, the group with the highest average¹⁷ individual poker hand scores after all the rounds have been completed wins. Second, the individual within each group that has the highest point total after all the rounds have been completed also wins. It is important that the instructor emphasize the two means of winning in order to create a context similar to that of strategic alliances in which there exists tension between competition and cooperation.
2. Students are instructed that the scoring for the game depends on the five card poker hand they create during each round. This five-card poker hand can consist of any of combination of the cards in their own hands as well as the common cards. The better the hand, the higher the points.
3. One player is then designated as dealer in each group.¹⁸
4. The dealer opens the deck of playing cards, removes the jokers, etc. and shuffles the deck thoroughly.
5. The dealer then deals four cards to each group member and then places three common cards face-up in the middle of the group playing area.
6. An SAP round begins with the group member to the left of the dealer. This group member may trade one of his or her cards for one of the common cards or may pass play to the player to his or her left.
7. SAP play for a given round continues until two consecutive players decline to trade a card for one of the common cards.
8. Once an SAP round is completed each player records the value of his or her best combination of five cards on his or her individual scoring sheet.
9. Once four to five rounds of SAP have been completed following procedures 4-8, individual totals and group averages are calculated and recorded on their respective scoring sheets.

Typically, at some point during SAP students will ask if it is okay to coordinate their efforts by openly discussing or showing their individual cards to the rest of the group. Our response has been 'do what works best for you'. This response is intentionally vague. Groups will translate the response differently which allows for an interesting discussion during the debrief. Step 3: Debriefing. Upon completion of all SAP rounds a discussion of the group and individual scores takes place, and group and individual winners are determined. Following the recognition of the winners we debrief the students by asking them several questions.

The overarching learning objective of this exercise is to help students better understand resource based explanations of value creation and appropriation in the strategic alliance context. To begin it is helpful to ask the following question: How might the different components of this exercise relate to the strategic alliance context? The purpose of this question is to recognize the similarities between the exercise and the strategic alliance context. In order to help students to begin see the conceptual linkages, it may be helpful to ask students some of the following questions: What might each group member represent in this exercise (a firm)? What might the individual playing cards represent (resources)? What might the common cards represent (shared resources)? What might the poker hands represent (capabilities)? What do the groups represent (an alliance)? What might being able to win as an individual or as a group represent (the tension between sharing resources and misappropriating value)? Once students begin to see the conceptual linkages between the exercise components and the strategic alliance context we find it helpful to ask the students the following question: How does this exercise relate to value creation in the strategic alliance context? This question is used to highlight the implications of resource sharing in the alliance context. Similar to resource sharing in the strategic alliance context, the formation of poker hands in SAP requires the sharing of cards (the common pool of cards placed in the middle). It is important for the instructor to highlight that similar to value creation in the alliance context, the value of each poker players hand is in part determined by the nature of the cards (resources) that were shared with the other players. By placing valuable cards in the middle and sharing them with other members of the group, the potential contribution of each individual common card to the overall hand scores of the group was increased. This is analogous to the synergistic value created by resource sharing in strategic alliances. Indeed, similar to the value creation of shared complementary

¹⁷ Average round scores are used rather than totals to facilitate comparison between groups of different sizes.

¹⁸ The dealer can be rotated throughout the group, or assigned for the duration of the exercise. This decision is generally left to the group as students may vary in their level of ability with shuffling playing cards.

resources in strategic alliances, the individual hand scores in this exercise are increased as group members place complementary cards in the common area.

We will sometimes ask What were some things that your group did that resulted in increased or decreased trust within your team? Students often point out that their trust in other group members was a function of their experience and interactions with other group members. This effect is mirrored in the strategic alliance context. Evidence of this is found in prior research which suggests that trust is a product of previous alliance experiences that were positive and successful (Ireland et al., 2002). Students will also typically point out specific actions their groups took that fostered trust. Such actions often take the form of laying their cards out on the table so that other group members could see them, and openly discussing which cards would help the group as a whole the most. The instructor should highlight that similar to the trust fostering actions taken by SAP participants, effective alliance managers also facilitate communication and coordination in ways that foster trust. Other questions that we have used in the debrief include: How did the fact that you can win as an individual and as a group impact play within your group? What role did trust play in shaping the average group scores and your individual scores?

RESULTS

Our own results support the premise of the exercise. Our sample was collected from multiple universities. Respondent backgrounds break down as follows: all were undergraduates within 12 months of commencement, 36.9% of students were female, 27.3% claimed finance (including financial planning, real estate, etc.) as their major, 24.4% marketing (including sales), 23.3% management (including OB, HR, operations, entrepreneurship), 13.1% accounting, 6.8% economics, and 5.1% management information systems. Tests were run to determine differences in performance based upon gender or major; all tests were not significant beyond the $p < .05$ level.

Individual poker scores in rounds 1 through 4 ranged from 0 to 10; individual total scores (sum of rounds 1 through 4) ranged from 4 to 30. Group scores in rounds 1 through 4 ranged from 8 to 38. However, since the number of students per group ranged from 4 to 6, group average scores were utilized. Group average scores in rounds 1 through 4 ranged from 1.6 to 7.75; while total scores (sum of group averages in rounds 1-4) ranged from 8.6 to 28.25. The theory behind strategic alliances would predict that average group scores should increase over time as students become more skilled at utilizing resources for their own benefit (increasing individual scores) as well as for their group (increasing group averages). Indeed, improvements in both categories were observed. Individual mean scores increased significantly from 4.59 to 5.32 ($p < .001$) and group average scores increased significantly from 21.63 to 24.27 ($p < .001$).

To explore the alliance premise further, we broke down the differences between individual student scores from that of their group for each round. If trust between group members were increasing over time for the betterment of the alliance, then the differences between individual scores and average group scores should generally decline. To investigate this effect, we calculated a difference measure for each round defined as the absolute value of individual score minus group average. We then looked at the mean difference measure for each of the four rounds. The mean differences indeed trended downward, lending more comprehensive support to our premise of resource sharing and trust in the development of strategic alliances among students engaged in the strategic alliance poker exercise.

We also wanted to explore the opposite possibility. Given that strategic alliances are dependent upon trust, they are likewise subject to opportunism. In our exercise, students are recognized individually for having the highest individual score within each group. The possibility exists that some students will manipulate resources in a way that will maximize their score to the detriment of teammates and thus to their group as a whole. To see if this condition existed, we looked at every case where student average scores over the four rounds were higher than the average score for their group; 38.6% of students were in this category. 53.9% of the groups that contained these (possibly) opportunistic students suffered from below average performance. However, 46.1% enjoyed higher performance. Thus, evidence of opportunistic behavior is weak at best and, in fact, arguments might be offered that students seeking to elevate their score do not necessarily attempt to prevent other team members from doing likewise. Indeed, they may see the value in group collusion which opens up other discussion possibilities for the debrief as students recognize that sharing information within their competitive group can elevate the performance of the entire industry. Although information sharing is generally considered illegal in US business, the conflict of what is profitable versus what is right brings basic ethical questions right to students' direct experience as opposed to the hypothetical. Thus, multiple classroom discussion topics are demonstrated regardless of results.

CONCLUSION

Although many students were familiar with the rules of poker (mean of 6.45 out of a 10 point scale), few students claimed familiarity with the specific exercise prior to our data collection, the mean familiar score was 3.31 out of 10. In response to our question “did this exercise help illustrate strategic alliances” students answered strongly in the affirmative with a mean of 7.70. Likewise, when asked if we should repeat the exercise in future semesters, students responded with a mean of 8.64 in the affirmative. Our experience suggests that Strategic Alliance Poker represents a valuable tool in our pedagogical tool box. SAP is an exercise that students enjoy and find beneficial in illustrating the roles of resource sharing, complementary resources, and trust in shaping the success of strategic alliances. Moreover, we have found that SAP creates enthusiasm in the classroom and provides instructors with an additional means of illustrating effective alliance management.

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INTERNET TRACK

UNCERTAINTY AND THE IMPOSTOR PHENOMENON: TOWARD A REACTOR ORGANIZATION

William C. McDowell

East Carolina University

W. Lee Grubb III

East Carolina University

Andrew O. Herdman

East Carolina University

ABSTRACT

The imposter phenomenon has been used to describe feeling of inadequacy or phoniness in the workplace. This study develops a theoretical framework for studying the relationship between top management uncertainty, the emergence of the imposter phenomenon and the consequent effects on organizational configuration. Specifically, we propose that feelings of uncertainty will be positively associated with the development of the imposter phenomenon among managers. Using decision-making types, threat, and threat rigidity, this growth in the imposter phenomenon among senior leadership, will result in a “reactor” type of organizational form. Opportunities for future research and limitations of the current study are both presented.

INTRODUCTION

Miles and Snow (1978) offer a typology of strategic organizational styles. The argument is that organizations will take on a specific strategic style that is most appropriate for them within their unique business environment. Defenders defend their position and protect their market. Prospectors seek out opportunities through new products, directions, or markets. Analyzers strive for balance between defending their position and seeking new products or markets (Miles, Snow, Meyer & Coleman, 1978; Hambrick, 1983). The fourth type of organization is the reactor, an unstable and inconsistent organizational form which is considered a strategic failure (Segev, 1987). Instead of pursuing stability, growth, or balance, the reactor responds to the changing business environment with a reactivity (Miles & Snow, 1978) which is generally inappropriate and tends to result in poor performance. This strategy is often chosen because of failure through the previous use of one of the other strategy types.

Strategy is crafted through examining the environment, understanding the organization, and making decisions based on this analysis that are expected to improve performance for the organization (Mintzberg, 1987). Top management is often entrusted with this task (Hambrick, 2005). Several factors have been identified within the literature that impacts this decision-making ability by top management. Previous performance on the part of these CEO's can drastically affect their self-efficacy or confidence in their ability to carry out a set of directives with a desired result (Miner, 2002). Closely related to this aspect is the imposter phenomenon which is believed to go beyond just a basic perception of ability and dives into the self-perception of these individuals.

The imposter phenomenon (IP), the feeling of phoniness in high achievers, can influence the decision making of the individual. Many successful individuals attribute their success to luck or interpersonal skills and do not believe they deserve their current position. This IP in individuals creates a fear of failure, fear of success (Fried-Buchalter, 1992), guilt about success (Clance & O'Toole, 1988) neuroticism, and feelings of incompetence (Bernard, Dollinger & Ramaniah, 2002).

Intertwined with both reactor style organizations and IP is top management uncertainty. Many attributes may lead to a perceived uncertainty on the part of the top manager, such as failure and even other perceptions of the individual. However, this uncertainty may lead to IP within top management that leads to reactor style strategy.

INSTABILITY WITHIN ORGANIZATIONS

Many factors can lead to a manager's sense of instability within an organization. One such factor may be a recent failure within an organization. Valikangas, Hoegl and Gibbert (2009) found that failure of a major project within an organization may lead to innovation trauma. Innovation trauma has been defined as “an inability to commit to new innovations due to severe disappointment from previous innovation failures” (Valikangas et al, 2009: In Press). Immediately after this failure, there is a possibility that organizations will hold off on initiatives or

innovative practices due to the fear of continued loss or failure. The authors state that this post-failure trauma can lead to several problems including disillusionment, in which individuals doubt a possibility of success, cynicism, in which others doubt their ability, and motivation. Kahn (2003) states that in these times of organizational trauma, individuals tend to pull away from others as they experience feelings of shock and even guilt from not preventing the problem or failure. Miller and Shamsie (1999) add that in the midst of uncertainty, the individual's drive tends to focus on work and a market that they better understand. They are, thus, less likely to attempt to be innovative.

In addition to recent failures in an organization, negative self-image confirming feedback can lead managers to question their abilities and decisions. The negative feedback can take the form of formal performance reviews or casual comments from peers or superiors. Self-consistency theory posits that people are more likely to consider feedback to be more accurate when it is consistent with their own self-concept (Lecky, 1945). When things are going well managers are less likely to be impacted by negative feedback than when things are not going well and they are already questioning their abilities. When managers begin to question their abilities, the negative self-image confirming feedback may appear to be more realistic to them.

Using theories that help explain how people react to negative feedback, we are able to follow a pattern that may fuel a downward spiral that leads from a negative self-image and imposter phenomenon. When people are in a state of low self-esteem, negative feedback is perceived to be more accurate and people are willing to accept more responsibility for the negative consequences than when they are in a state of high self-esteem (Jussim, Yen & Aiello, 1995). In addition, when the feedback lacks suggestions or further developmental information, individuals are more likely to react behaviorally and experience further negative affective consequences (Murphy & Cleveland, 1995). As the negative feedback continues to eat away at an individual's weak self-esteem, the individual will likely begin to take the negative feedback personally and begin to experience the imposter phenomenon.

THE IMPOSTOR PHENOMENON

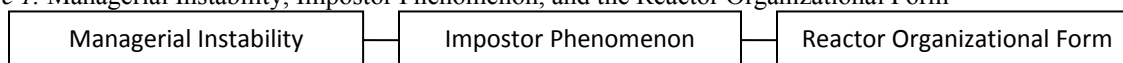
Clance and Imes (1978) introduced IP to capture the feelings of inadequacy in high achieving women. What they found was that IP leads to the fear of success as well as a fear of failure (Fried-Buchalter, 1992), a dread of evaluation, and even guilt about success. Multiple studies since have indicated that this feeling of phoniness is not just held to women, but applies to both genders, all ages, and can be found in just about anyone (Bernard, Dollinger, & Ramaniah, 2002; Clance & O'Toole, 1988).

It has been proposed that those individuals who feel they do not deserve their current position within an organization may experience IP (McDowell, Boyd, & Bowler, 2007). It also seems plausible that those who feel guilt resulting from a perception of high compensation may also experience IP (Gilliland, 1993). Clance and O'Toole (1988) identify several key elements of the IP sufferer which need to be addressed. They stated that the IP sufferer fears the employee evaluation process. This is due to the fear that their phoniness will be discovered. Also, there is the fear of failure and the fear of looking foolish (Fried-Buchalter, 1992; Clance & O'Toole, 1988). These authors also suggest that guilt about success is another characteristic feeling of these individuals because they feel they are not responsible for the success. These individuals overestimate other's strengths and abilities while underestimating their own.

Therefore, when examining IP in relationship to the stability of a manager, it is expected that lower levels of stability as perceived by the individual results in higher levels of perceived IP. Thus, the following proposition is posited in regards to the perceived stability experienced by the manager and the perceived imposter feelings.

Propositon 1: Lower levels of stability lead to greater levels of the imposter phenomenon in top management.

Figure 1. Managerial Instability, Impostor Phenomenon, and the Reactor Organizational Form



REACTOR ORGANIZATIONS

Reactors are reluctant to make organizational changes unless environmental pressures force them to. Unfortunately, the reactor naturally has no response mechanisms set in place to draw from in this uncertain environment. Therefore, these organizations are less likely to take risks and more likely to move in uncertain directions (Miles and Snow, 1978). There is a risk averseness within these organizations which is really risk averseness on the part of the top management or decision makers. When crisis situations arise from the environment, the reactor organization will react in confusion with little or no effectiveness. These organizations are

normally aware of this ineffective and inconsistent reaction, but there is a tendency to become even more confused about the correct direction to take as the crisis situation escalates (Collins, Holzmann, & Mendoza, 1997).

Miles and Snow (1978) suggest three reasons why organizations become reactors. First, there is a belief top management or the decision maker has not clearly articulated the organization's strategy. Second, top management does not create a fit between the organizations structure and processes with the chosen strategy. Third is a tendency on the part of top management to maintain the current relationship between the strategy and the structure despite environmental reasons to change. The authors go on to state that unless the organization is in a protected environment, the reactor strategy will not succeed (Miles & Snow, 1978; Miles, Snow, Meyer, & Coleman, 1978).

LINKING IMPOSTOR PHENOMENON AND REACTOR ORGANIZATIONS

Mintzberg indicates that a great deal of decision-making must be accomplished for a strategy to be crafted. However, two types of decisions are involved in strategy formulation (Nutt, 2001.) The first type of decision is the non-developmental decision. This type of decision is one which can be made when the organization's strategy and environment is stable and the organization seems to be fine. There is stability in the environment and no real threat exists for the firm. In this case, decision-making consists of making decisions based on what the organization has been doing with no additional direction needed. As Nutt points out, however, in an unstable environment, these non-developmental decisions can lead to organizational failure. He gives three main reasons for these occurrences. First, the decision maker tends to make premature commitments, often jumping on the first idea that arises. Second, the decision maker may make an inappropriate investment and misuse vital resources. Third, the decision maker could employee failure-prone practices, indicting the decision maker for not being aware of the failure rate of these same decisions made in past situations.

The second type of decision that is vital for organizations in uncertain or unstable environments is the developmental decision. The developmental decision requires a vision of how to change products, markets, alliances, or other aspects of the organization that contribute to its core competencies (Nutt, 2001).

Developmental decisions are the basis for organizational success in environmental uncertainty (Nutt, 2001). However, due to the fear of failure and inability to believe that they are successful (Clance & Imes, 1978; Fried-Buchalter, 1992), it is believed that IP sufferers will not be capable of making developmental decisions. These individuals underestimate their own abilities while overestimating the abilities of others. In the context of the environment, the individual will overestimate the magnitude of the problems facing the organization while underestimating his or her own abilities to lead and will continue to make the non-developmental decisions based on previous directions or decisions because of these feelings of uncertainty.

Threat rigidity has been found to be a significant hindrance to organizational success (Staw, Sandelands, & Dutton, 1981). In situations of high uncertainty, information is sometimes restricted within the organization on the part of top management due to prior expectations or their own hypotheses about the environment. Individuals tend to continue in the same or similar courses of action that may have worked before. A similar pattern arises within organizations. In situations of high threat, information within the organization intended for decision makers is lessened and the number of alternative options is limited. In these cases, there is a tendency to go with previously made styles of decisions only with more information now added in (Staw, Sandelands, & Dutton, 1981).

Mintzberg, Raisinghani, and Theoret (1976) indicate several stages of the process. These processes are even more important when the environment is unstable and threat or risk is apparent. One stage is the search routine. Search indicates the scanning of available resources – the organization, memory, or others – for information that may be pertinent to the decision process and may uncover other alternatives. Unfortunately, in high threat situations, the search process can be ineffective. As Staw et al. (1981) indicate, often times the search for information can yield too much information which can result in the wrong decision may be made. And, regardless if this is the correct decision, the search continues but only with the purpose of confirming the already made decision, not with the purpose of determining if it is the correct decision or finding a better alternative.

Another aspect of threat that Staw et al. express is that there is a tendency to centralize authority in highly threatening situations such as the presence of environmental uncertainty. When decisions increase in importance, the accountability and responsibility to make those decisions rise to the top of the organization. This places the final direction of the organization in fewer hands, and ultimately in the hands of the CEO or president.

IP to Reactor Organizational Forms

The first reason an organization moves toward a reactor type form is that there is not a clearly articulated strategy (Miles & Snow, 1978). As discussed earlier, it is believed that individuals suffering from IP are not able to make developmental decisions. In unstable environments, there is a risk associated with the decisions that the CEO or president must make. These risks, for the IP sufferer, constitute a threat due to the fear of failure (Fried-Buchalter, 1992). Therefore, threat rigidity will be a prominent factor in this individual. And, because of threat to the organization, control and direction will be moved up throughout the organization and be placed in the hands of the CEO or president (Mintzberg, Raisinghani, & Theoret, 1976). Because of the lack of ability to make developmental decisions and because of threat rigidity, or the desire to continue a previous course of action in the face of a changing environment, the IP individual will transform the organization into a reactor organization form.

The second reason given by Miles and Snow for moving toward a reactor type of organization form is the inability by management to fully shape the structure and processes to fit the chosen strategy. Threat within an organization as previously mentioned is shown to cause information search problems (Mintzberg, Raisinghani, & Theoret, 1976). Too much information may be given at first, and once a decision is made, the search is only continued with the goal of confirming the previous decision. For the IP sufferer, there is a great fear of evaluation. Therefore, instead of examining the organizational capabilities and continuing to hone them with the strategy, the decision will be made with follow-up work consisting of validating the current response. There will be a continuance along that course of action without reevaluation to examine the overall fit.

The third cause of instability within an organization offered by Miles and Snow is the tendency for management to maintain the organizations current strategy rather than adapting to the changing environment. As Staw et al. (1981) point out, threat rigidity in individuals results in a tendency to remain in well-learned courses of action. IP sufferers, underestimating their own abilities and overestimating others (Clance & O'Toole, 1988), will sense threat in the unstable environment and thus will not be able to make the necessary developmental decisions. Instead, non-developmental decisions will be made which conform to the previous direction of the organization despite the lack of positive results. Therefore, the following is proposed.

P2: Greater levels of the impostor phenomenon in top management are positively related to a reactor style organization strategy.

DISCUSSION AND IMPLICATIONS

In developing the framework for this paper, the impostor phenomenon was examined in light of decision-making (Nutt, 2001) and the use of developmental and non-developmental decisions by top management. It was posited that IP sufferers tend not to make developmental decisions that are necessary for organizations in uncertain or unstable environments. In addition, threat and threat rigidity (Staw et al., 1981) was introduced as a reason for IP sufferers to lead their organizations toward reactor type strategies.

Future research includes identifying the dimensions of IP that concern top management. In addition, several relationships need to be empirically established. The relationship between IP and a reactor style organization should be examined first. Second is the relationships between IP and the antecedents offered by Miles and Snow (1978). Third, the entire model from IP to the antecedents to the reactor organizational form needs to be empirically established. This research will evolve over time as various aspects are changed or found significant, and new revelations concerning IP and reactor organization should be embraced to develop a more comprehensive view of reactor organizational forms and what leads to this type of organizational failure.

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MBA PROGRAMS AND RISK TAKING MANAGERS

Ajeyo Banerjee

University of Colorado Denver

ABSTRACT

Do MBA programs comprehensively prepare aspiring managers for the challenges of future uncertainty in today's business world? This paper examines student risk taking in the context of three experiential business collaborations conducted in a distinctive MBA program of an AACSB accredited business school. The multi-course nature of the collaborations, conducted in real time, had an unsettling impact on a significant number of students, who seemed to prefer traditional academic settings and expected the MBA program to be no different. This was somewhat disconcerting as the collaborations were envisioned to shape the MBA program as a transition from the orderly academic world to the messy, complex world of business where uncertainty increasingly occupies a larger space in process and outcome. Aspiring managers would perhaps be better equipped for the new professional world if they came across more structural ambiguity in their encounter with a forward-looking, profession-preparing MBA program.

INTRODUCTION

The concept of risk has been intertwined with business from its earliest days. As Bernstein (1996) states in his book, *Against the Gods*, "The capacity to manage risk, and with it, the appetite to take risk and make forward looking choices, are key elements of the energy that drives the economic system forward." (p. 3) Risk refers to uncertainty or lack of predictability regarding the future, as businesses endeavor to prosper and create wealth. Individual businesses, with incomplete information, have to be better than their competitors at harnessing future uncertainty to generate higher sales of their goods and services at lower cost. Managers, often educated in MBA programs, are the conduits for this task. A unique 11-Month MBA program at an AACSB accredited business school provided insights in this regard as entering students participated in multi-course experiential business collaborations as part of their curriculum.¹ These activities created unpredictable ambiguities in the course and program structures. A significant proportion of the students were uncomfortable and distressed while navigating the "uncertain waters" of the collaboration exercise. In contrast, they were more receptive to a lower degree of risk they faced in the experiential international course in foreign cultures, in the same program, which structurally conformed to the "boxes" and confines of traditional academic programs.

RISK AND MBA EDUCATION

Business schools have generally approached "risk" education through the lens of entrepreneurship. Risk, often conflated with innovation in business jargon, is "taught" in MBA programs either through an entrepreneurship course (e.g. principles of entrepreneurship) or a specialization in entrepreneurship with courses like entrepreneurial marketing or entrepreneurial finance. But risk is not synonymous with innovation. As Hamel (2004) points out, there can be low-risk innovators (p. 264-9). And risk takers in the business world may not necessarily be innovators of products or services. They are successful by sensing opportunities where others may see chaos. As such, risk taking managers may only be a subset of the universe of innovative entrepreneurs. Of late, some business schools have adopted a more creative approach to the teaching of risk through a unified program on enterprise risk management. This approach de-links risk models from their functional parents, accumulates all risk models under one umbrella, and focuses student attention on understanding, managing and mitigating all kinds of risks in the business world. Buehler and Pritsch (2003) and Phillips (2008) are examples of the content and form of this approach.

Risk has been mathematically modeled exogenously for centuries through the laws of probability. More recently, academics and researchers have also modeled risk endogenously under the umbrella of game theory. Knight (1921) defines risk in the economic world as measurable future uncertainty, leaving a vast amount of uncertainty, which is not measurable, out of risk modeling. Further, within the individual and delineated courses of the MBA program, risk models are very specific and well defined, often creating a misleading impression of exactness, where none exists in the real, decision-making business world outside the MBA classroom. Hence, these models may not quite be adaptable to unmeasurable future outcomes. Bennis and O'Toole (2005) note that "when applied to business - where judgments are made with messy, incomplete data - statistical and methodological wizardry can blind rather than illuminate." This view is further corroborated by Courtney in an interview published

in the McKinsey Quarterly (2008). He mentions, in the context of the recent financial crisis, that "...the most important decisions for most companies will truly be level three and, many times, level four decisions. Our standard strategic-planning tool kits-- the ones that we are most comfortable with and that we learn in MBA programs-- don't do a really good job for that." Level three and level four decisions relate to the analysis of uncertainty in the strategic context. Courtney, Kirkland and Viguerie (1997) categorize future expectations into four levels of uncertainty in increasing order of ambiguity. For the highest level four "true ambiguity" uncertainty, the suggested major analytic tool is not risk models, but "analogies and pattern recognition," learned through experiential processes.

Future circumstances confronting business cannot often be measured and modeled on an ex-ante basis, as they are largely unknown. In the real world of business, most of the uncertainty faced by managers arises out of unpredictable and rapidly changing forces, political, economic and technological, driving the markets and consumers for goods and services. In recent times, this has been compounded by the relatively new phenomenon of telescopic bubble creation with a global reach-- the internet bubble, the real estate bubble, and now the financial bubble. In this context, managers need to demonstrate a certain nimbleness of action, the added confidence and ability to respond quickly and efficiently to unforeseen, poorly defined outcomes. Experiential unfamiliarity with approaches to the undefined nature of the future could elicit passivity, puzzlement or hostility from the manager, leading to a hasty, ill conceived and ineffective response, to the detriment of the interests of the business firm. On the other hand, success will be ensured if managers can assimilate "evolutionary" approaches (Beinhocker, 1999), proactively identify and exploit the intractable, messy future and derive potential opportunities for competitive advantage.

For the level four category of uncertainty (Courtney et al., 1997), the uncertainty may not just be in possible outcomes, but the processes themselves may often be ambiguous and unstable. Students in MBA programs take courses that model future risk in different types of specified business situations, but do not really confront it in the program structure as a significant occurrence. If we view the MBA experience as a journey, students are transiting from the discipline based, structured world of schools, programs, and instructors, to the relatively fluid and ambiguous real world of businesses where walls have to be breached frequently for a common purpose, and personal comfort level with risk can go a long way toward goal achievement. For the students to be properly prepared for their managerial destination, the MBA program needs to be a bridge to the future, forward looking and flexible. Yet, the regular activities during the journey, including understanding and "knowledge" regarding risk and future uncertainty, are entirely located in the past of prior academic programs, bounded by time and discipline based, specific "boxes" in the structure of the MBA program, and composed of standard graduate academic courses and their accompanying paraphernalia, replete with clarity and specificity-- syllabi, schedule of topics, assignments, exams/projects, pre-assigned timeslots, and grades. Student pursuit of business "knowledge" within this rigid framework may reinforce a mindset of strong aversion to uncertainty, and leave them unprepared for the more open ended and messy circumstances of many future business scenarios where they may end up working. Further, without some element of unstructured, experiential exposure during the program, aspiring managers may fall short when called upon to embrace process uncertainty on a regular basis.

The academic literature on graduate management education has been endeavoring to develop strategies to bridge the gap between the formal knowledge and analytical techniques conveyed in the MBA programs and the complex and unquantifiable world of business practice. Pfeffer and Fong (2004) ascribe the reason for this gap to the absence of a thematic motivator as existing in other professional schools. Chia (1996) recommends a paradigm shift in business education, and the introduction of innovative practices, to keep pace with the paradigm shifts in the external environment. Fenton-O'Creevy, Knight and Margolis (2006) argue for a practice centric approach by setting up dialogues among stakeholders to improve the relevance of MBA programs. Herbert and Lilja (2006) distinguish between efforts to change the MBA structure from without (e.g. Mintzberg, 2004 etc.) and within. The internal pressures for change can come from the core or the periphery, and the researchers term the latter as "reverse innovation." In this framework, the activities discussed below can be considered to be an exercise in reverse innovation.

THE "FIELD" OF THE EXPERIMENT

A unique MBA program at the University of Colorado Denver enabled a qualitative analysis of the handling of unstructured programmatic situations by students. The 11-Month MBA program was an accelerated program of sixteen 3 credit hour courses to be completed within one year. The year was broken up into five 8-week terms, with 3 courses per term (and one extra course). There were no online courses. Entering students went through the same 16 courses every year in the cohort program, and were generally of similar academic standing, with some work experience and average GMAT scores of around 600 (all students had to provide GMAT scores). There was no

other special admissions filter. The size of the class each year ranged from 25-40. Everyone paid the same tuition, though discounts were made available (i) to attract high GMAT students and (ii) for superior academic performance in class. There was only one section/class at any point in time. Classes were held in the same smart classroom, part of the university's entrepreneurship center, throughout the year. At any point of time, the premises would have entrepreneurs (supported by the center) working on their startups, and the students could informally interact with them.

Given the accelerated and compressed nature of the program, group activity had to be necessarily accorded significantly greater prominence in the MBA experience. In the program, students were assigned to groups before they started, and encouraged to use the structure both for class preparation and course assignments. In the course syllabi, faculty pedagogy generally reflected increased reliance on group activity outside of class for assimilation of material as well as for evaluation. The program provided enough flexibility to students to change groups if there was lack of fit. The program began with a business ethics course in the first term, and had a planned sequencing so that business knowledge could be built up over successive terms as students progressed through the program. A wide variety of professional development programs (resume writing, interaction with headhunters, interview workshops, web based job search sources, industry based presentations by recruiters etc.) was also offered to the students (and sometimes organized by them) on a parallel track throughout the year, so that students could feel empowered and confident to find the right professional fit for themselves after graduation.

To accomplish its goals in the defined timeframe, the program relied heavily on experiential learning. The international course requirement of the program (the sixteenth course) was designed to be an intense academic and cultural experience in a foreign culture. The course was located in a foreign country (Scotland or France) where the students lived for 2 weeks. It was collaboratively created with, and delivered by qualified foreign professors in those countries who had prior independent experience teaching American students. One such foreign professor played the lead role in planning and logistics, and coordinated delivery. As per European practices, there was greater non-business contextualization in the lectures, and the student performance assessment in the course mimicked overseas patterns with more open ended essay type questions. The content of the course varied each year, depending on the overseas mix, and was reviewed and upgraded from year to year.

EXPERIENTIAL EXPOSURE AND STUDENT RISK TAKING

A second key component of experiential exposure in the program, besides the international course in foreign cultures, was the participation of large and locally headquartered corporations, who offered integrative business learning and problem solving to the students through "live" case studies extending across courses, within the MBA Program. Outside the framework of the MBA program, similar collaborations have been conceptualized and implemented with student participants of pre-defined profiles, as evident from Ghoshal, Arzen and Brownfield (1992), and Mintzberg (2004). In our collaborations within the framework of the 11-Month MBA program, the company proposed a theme of current business interest to the MBA students, and generated a set of business function based questions relating to the theme (one of the companies called them "burning questions" for their organization). The business school faculty, in consultation with the company, identified relevant courses in the MBA program, and threaded them appropriately to facilitate content learning so that students could appropriately answer parts of the questions related to the course. Student participation in the activity in each of the selected courses was measured and graded, as a non-trivial part of the overall course grade.

The academic courses involved in the collaboration received considerable "free" input from the company. Apart from planned class visits in the courses, the company provided access to their local facilities and executives, and otherwise assisted students with company specific information, so that they could make progress on the theme through the identified courses. In addition, the company arranged for the students to visit their overseas facilities, to coincide with their international course experience in those countries (as mentioned earlier when describing the program). During these visits, the students got the opportunity to interact with the overseas executives of the company. Located in their own cultures, these executives had a nuanced perspective, which they shared with the students. Armed with all the inputs from the feeder courses, interaction with U.S. and overseas executives in class and abroad, and site visits in the Denver area and abroad, the students would arrive at the culminating strategic management course. Here, the students created a consolidated, integrated product. At least two groups worked concurrently, and compiled reports incorporating answers to the questions. The MBA students delivered their findings to the company through a presentation to top executives.

As the students applied course content to address the questions/issues raised by the company, it was anticipated that they would simultaneously observe and learn experientially from a large number of company executives. These executives, belonging to the same company but different functional departments, would present the same issues in

corresponding function based classes. This would help the students to process and analyze business issues in an integrated manner. The model could be tweaked, in implementation, in response to specific company needs and constraints, and the scope of the activity could vary, but there were the following common features:

- It was a multi-term, multi-course activity to be carried out “live” in real time
- The collaborating company would identify a set of senior executives (and contribute their time) who would constitute the core executives team for the activity, to work with the faculty and students. Their functional counterparts among faculty, teaching the identified courses, would also form a core faculty team
- The theme of the activity had to be suggested by the company, and be of current business interest to them. The company would also identify specific issues relating to the theme which would be addressed by the executives and the faculty in the respective courses and analyzed by students. In addition, there would be site visits, as necessary
- There would be an international component of the activity in the country where the students were scheduled to pursue their international course requirement. The company would have a presence in that country, and the interaction would connect executives in the foreign country with the students on the same set of issues
- The faculty participating in the collaboration would assign a non-trivial part of their course grade to the activity. The activity would be graded across multiple courses as it progressed, with relevant input from the courses. The output from a particular course would be the work in process input in the subsequent course. The process would culminate with a final report prepared as part of the Strategic Management course at the end of the program.
- There would be close coordination, meetings, and exchange of ideas between the executive team and the faculty team, for planning, review, and implementation
- The company would provide privileged information access to the students as feasible, and the students would sign confidentiality agreements
- There would be a final student presentation and written report to the company

The collaborations were envisioned to benefit all stakeholders:

Benefit to Students

- A live case study, running through classes and the entire cohort program, brings relevance and complements traditional classroom experience
- Students experience the excitement of learning business principles on a real time basis through interactions on topical issues with company executives
- Learning pedagogy is enhanced, and there is content amplification, as students get the opportunity to hear from executives how they “practice” specific aspects of course content “preached” by different faculty in their classes
- The connected and integrated nature of business courses becomes evident to students from the continuity of context, as executives of the same business firm come to classes in different disciplines, and discuss common problems and issues from their functional perspectives
- Students comprehend the complexities of doing business internationally in different cultures by locating in the other culture (as part of their international course), and interacting with executives from both cultures
- Students can observe and potentially assimilate the strengths that company executives repeatedly demonstrate during their presence-- teamwork, preparedness, balanced temperament, presentational skills, and verbal communicational skills.

Benefits to Business Community

- True partnership with the academic community for furthering business education
- Active participation in improving the quality and relevance of business education
- Company executives can develop professionally working closely with faculty in designing and delivering function based course material to students
- Company gets access to “out of the box” thinking from high quality students (with guidance from faculty) on current issues of business interest to them
- Company gets first pick at recruiting best students as observed and identified through a long, multi course interaction

Benefits to Business School

- The quality of business education is enhanced
- Integrative nature of business is better illustrated to the students
- Companies are challenged to play a more direct role in shaping MBAs
- A new classroom interface is created between the two main beneficiaries of the MBA product-- students and businesses
- A stronger cross functional relationship is built with the partnering company, with better access and longer term benefits for faculty and school
- There is potential for greater financial and political support for business education

Three such collaborations were conducted in multiple years in the program. The course selections were related to the business issues identified by the company.

Coors Brewing Company: Merging Similar Businesses from Different Cultures

Term 1 Courses: Accounting for Managers

Term 2 Courses: Marketing Management

Term 3 Courses: Financial Management
Managing People in Global Markets

Term 4 Courses: IT Management
Strategic Management

Overseas visit to Coors UK Carling breweries at Burton-on-Trent, UK

Final Report and Student Presentation to CEO and team

Prologis, Inc.: Impact of Globalization Trends on Warehousing Business

Term 1 Courses: Accounting for Managers

Term 3 Courses: Introduction to International Business

Overseas visit to Prologis warehouse facilities in France

Term 4 Courses: Strategic Management

Final Report and Student presentation to CEO and team

IBM Printing Services: Business Applications of Emerging RFID Technology

Term 2 Courses: Marketing Management
Accounting and Entrepreneurship

Term 3 Courses: New Product Development
Introduction to International Business

Overseas visit to IBM RFID research facilities at La Gaude, France

Term 4 Courses: Strategic Management

Final Report and Student presentation to Director and team

In all these collaborations, the students experienced a live case study, where they were, in some sense, participants in an analysis of the past, and involved in the formulation of future direction for the company. For example, a senior Coors human resources executive made a presentation to the MBA class on a Culture Survey, and mentioned that it was a dry run for presentation to 100 top executives of both US and UK companies early the following month. In UK, the issues addressed by US executives were covered from a UK perspective by senior officials of Coors UK. The IBM collaboration had an added dimension of idea generation, which made it more entrepreneurial. At the time, IBM Printing Services was interested in the business potential of the emerging RFID technology in business sectors of interest to them. Instead of generating issues on their own, the collaboration required student teams to initially originate multiple proposals for specific markets where the technology was appropriate, and IBM executives would then selectively vet some of the proposals based on their corporate preferences and interest. Students would then further analyze the selected markets and come up with viable business plans for those markets.

From a logistical standpoint, close coordination among relevant faculty and corporate executives was critical in both the planning and implementation phases. The collaboration was like a "team taught" effort over multiple terms,

with both faculty and company executives being participants, horizontally linked through their common disciplinary orientations. Given the generally proprietary stance of faculty toward their own courses, faculty buy in was sought to be achieved by avoiding direct programmatic intervention in the content or modification of individual courses. Instead, the concerned faculty (and executives) formed (separate) teams from the planning stage itself. The teams met as often as required, separately and together. Faculty consensually made adjustments in their offerings to ensure smooth content transition across terms and courses, so as to accommodate the broader objective of forward movement for successful completion of the collaborations. Yet, this loosely formulated process (by design) was the source of uncertainty and ambiguity in implementation. The functional differences among company executives were fairly fluid in the context of the unified approach of a business, whereas individual faculty were clearly distinguishable in their function based courses. As a consequence, during interim reviews of the collaboration, effective communication and consensus building between company executive and faculty teams required frequent discussion, in the dynamic context and rapid movement of 8 week courses. Despite the best of intent on both sides, resolution of issues and convergence toward specificity required greater effort. There was the inevitable conflict of academic pace and priorities with business pace and priorities. Despite these challenges, it was possible to achieve forward movement to successful completion, for all three collaborations.

OUTCOMES ASSESSMENT

Some students in the program seized the opportunity created by the collaboration and adapted to the attendant uncertainties. After the final presentation in the collaboration with Coors, one student was quoted in the local newspaper as saying

This experience is definitely going to give the students a leg up.The biggest learning experience was you hear one person's perspective then you go to another country and hear another person's perspective.It's not marketing on its own, it's not IT on its own, it's not finance on its own. It's how they fit together. Knowing what we know about Coors and being able to stay within this company was huge.

However, response data and student debriefing for each of these collaborations indicated a lack of enthusiasm regarding the process among significant sections of the students. To the extent the experiential business collaborations were an innovation in business education, this seemed quite counterintuitive from a program expectation viewpoint. The students, while considering the collaborations to be worthwhile in the abstract, seemed to remain generally uncomfortable with the lack of specificity of the collaborations, and the project-driven blurring of clear lines of demarcation between courses and terms. The multi-course, multi-faculty collaboration also created uncertainty in the structured delivery framework they were used to. A number of students apprehended that the collaboration would somehow diminish the "academic" learning they were expecting from the program. This could be a consequence of the prevalent view among students that the MBA program provides training in specific job skills required in the business world.

The 8 week courses selected for the collaboration felt different to the students from the "standard" course model. The real time aspect of the collaboration made the courses more challenging, as ongoing review and course corrections from the team of faculty and company executives appeared to students to be "expanding" the material they were responsible for. The conventional student sense of completion was hindered because one of the products of a selected course, the interim project report, was a work in progress for courses in subsequent terms. A few students were ambivalent about the value of the activity, since it did not have a separate course of its own, and success in the entire activity was not measurable in terms of the familiar, separate grade. Part grades in multiple courses implied sustained effort over a longer duration, varying from standard student approaches in the 8 week term. Some students also perceived the companies as rationing information flow and limiting direct access, thereby making their job more difficult. Finally, the compressed nature of the 11-Month MBA program may also have made the interactive and uncertain collaboration experience overwhelming for a number of students, though from an administrative standpoint, it may have been difficult to sustain student and company interest over the longer timeframe of a traditional two-year program.

This reaction of significant numbers of students to the experiential business collaborations, as detailed above, was in marked contrast to their responses to the international experience in foreign cultures. That course (a required course for all students) was also unfamiliar and unpredictable in many respects. The students, many of whom had never traveled overseas, were suddenly compelled to study in a different culture from professors belonging to that culture, as they experienced the culture intensively for the first time in their lives. Yet, from

feedback received, a larger segment of the students viewed the opportunity positively, relative to the experiential business collaboration. Both of these activities were primarily experiential for the students. However, the students could isolate the international course (and it was ultimately a course with its own grade) from the structural dimensions of the rest of the program. The course did not impact on their comfort levels with the rest of the program. On the other hand, the business collaboration was much more disruptive and risky (in the unmeasurable sense), as ongoing student performance in upstream courses of the collaboration created revised expectations from them in the same course, or in downstream courses, as a result of the interim reviews of the faculty and executives teams. Also, in the selected courses, the performance in the collaboration affected the course grade in unfamiliar and different ways, often not known to the students well in advance as part of a course syllabus.

CONCLUSION

The students were more favorably disposed toward the international course in foreign cultures, when contrasted with the experiential business collaborations. When comparing between the Coors, IBM and Prologis collaborations, they seemed to prefer Coors and Prologis, which had relatively more specificity and structure--where the companies provided the questions vs. ones where the students needed to originate a business idea when provided with a context (RFID technology). This reluctance to take the initiative in an uncertain environment, to prefer to be a reactive recipient of MBA services rather than an active embracer of MBA unanticipated opportunities, may be a consequence of some students viewing the MBA program as exogenous to their business experience, more like taking a "break" rather than potentially enriching the totality of their business experience through the detour of the MBA Program. If the latter is a worthwhile goal for business managers given the rapid external changes and attendant uncertainty, MBA programs may need to respond by consciously weakening the rigid academic, discipline oriented course separations. Multi course activities, with content learning enhanced by greater presence and involvement of multiple faculty and business executives in course conceptualization, teaching and evaluation process, can create a new MBA student experience. This can encourage the participants (students) to challenge conventional thinking in their own work situations, abandon "groupthink" and be proactive in seizing potential opportunities.

ENDNOTES

¹ The author directed the program for five years. The AACSB invited the author to speak on one of the experiential business collaborations at its Learning from Leaders annual conference in 2005.

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CONJOINT ANALYSIS AND AHP/ANP FOR INDIVIDUAL DECISION MAKING

Khalid M. Dubas

Fayetteville State University

ABSTRACT

Conjoint analysis and AHP/ANP are two techniques for individual and group decision. This paper discusses these techniques for individual decision making. The former was developed from the work of Luce and Tukey in mathematical psychology while the later was developed by Thomas Saaty for decision making. The former is based on experimental designs while the later uses a hierarchy or a network; both utilize a structured approach to decision making. This paper briefly describes both of these techniques and evaluates their strengths and weaknesses.

INTRODUCTION

Marketers are often faced with situations that require decision making by selecting the best alternative from several available alternatives. Numerous approaches to decision making are available. Here we discuss two such approaches: conjoint analysis and AHP/ANP. Conjoint analysis has its roots in mathematical psychology while contributions to its development have been made by scholars in fields like psychology, economics, statistics, and marketing (Green & Rao 1971; Green & Wind, 1975; Wind & Green, 2005; Gustafsson, Herrmann & Huber, 2007; Lancaster, 1966; Louviere, 1988; Luce & Tukey 1964). While conjoint measurement is a mathematical model without the error term, conjoint analysis is a statistical model with an error term. Conjoint analysis is also called trade-off analysis, choice-based analysis, preference measurement, choice experiments, etc. AHP/ANP were developed by Thomas Saaty of the University of Pittsburgh and software like Expert Choice, Decision Lens, Super Decision, etc. are available to facilitate decision making. Conjoint analysis has been utilized in social sciences including marketing, product development, service development, product positioning or repositioning, market segmentation, operations research, etc. AHP/ANP have been utilized to solve numerous problems in industry, government, academia, etc.

CONJOINT ANALYSIS

Conjoint analysis could be non-metric, metric, choice-based, hybrid, or adaptive. Original conjoint analysis studies were limited to less than 9 attributes, then techniques like hybrid conjoint analysis or adaptive conjoint analysis were developed to use over 30 attributes. Now there is plenty of software available to design a choice experiment as well as analyze respondent preferences and make recommendations for product positioning or market share etc. (SAS Institute, Inc., 1993, 2009; SPSS, Inc., 2009; JMP 8).

Respondent preferences can be utilized to modify existing products, develop new products, product positioning, and use of choice simulators for predicting market shares, revenues, and profits for different types of alternatives under evaluation to make the best decision for individual and/or group.

Gustafsson, Herrmann, and Huber (2007) summarize the main steps involved in conjoint analysis as follows:

1. Select the Preference Function. Choose among (a) partial benefit value model, (b) ideal vector model, or (c) ideal point model.
2. Select data collection method. Choose among (a) full profile method, (b) two-factors method, or (c) adaptive conjoint analysis (ACA)
3. Select data collection design. Choose among (a) full profile design or (b) reduced design or fractional factorial designs, (Addelman 1962)

4. Select stimuli presentation method. Choose among (a) verbal description or (b) visual representation
5. Select data collection method. Choose among (a) person-to-person interviews, (b) mail surveys, or (c) computer interviews.
6. Select stimuli evaluation method. Choose among (a) metric scales – ratings, dollar metrics, or constant sum scale or (b) non-metric procedures – ranking, pair profiles comparisons.
7. Estimate benefit values. Choose among (a) for metric methods – least squares or maximum likelihood estimation or (b) for non-metric methods – MONANOVA, LINMAP, or PREFMAP

AHP/ANP

AHP has four axioms (Saaty, 1994, 2001, 2008), (1) reciprocal judgments, (2) homogeneous elements, (3) hierarchic or feedback dependent structure, and (4) rank order expectations. The approach involves pair-wise comparison of alternatives on a scale of 1–9 to determine priorities. These priorities are measured on an absolute scale. Saaty (1994) notes theoretical and computational difficulties with interval scale measurements and therefore resorts to absolute scale of measure through what is called the Fundamental Scale. The decision maker starts by defining the overall goal and the criteria that influence that goal. Next the various alternatives are listed that are influenced by the criteria. Finally, pair-wise comparisons are made in terms of importance or property of criteria or alternatives to determine judgments. A singular value decomposition method is utilized to solve the problem.

The approach uses an absolute scale of measurement where the numbers cannot be transformed into any other scale through any transformation. These numbers are cardinal numbers so they indicate the intensity of preferences or values of the decision makers. The structured approach to a hierarchy or a network is very general and elaborate hierarchies or networks can be constructed that involve benefits, opportunities, costs, and risks. Each hierarchy or network can be modeled separately and then synthesized to obtain overall priorities to facilitate decision making. In a hierarchy, the importance of criteria influence the importance of alternatives, whereas in a network, the criteria and the alternatives can influence each other's importance thus making it possible to model more general situations. The networks generalize Bay's theorem and are utilized techniques like Markov chains to solve decision making problem.

A COMPARISON OF CONJOINT ANALYSIS AND AHP/ANP

Comparison Criteria	Conjoint Analysis	AHP/ANP
Ease of Use	Depends on the type of problem. However, large number of attributes or alternatives could make data collection a tedious task.	Depends on the type of problem. However, the method helps in formulating and solving the problem through a structured approach that helps in problem formulation and solution.
Model	ANOVA based – main effects, can include interactions. Other statistical methods can also be utilized.	Structured approach of a hierarchy or a network with backward and/or forward loops.
Applications	Widely used in industry, government, and academia	Widely used in industry, government, and academia. However, it is more general than conjoint analysis.
Software	SAS, SPSS, Sawtooth Software, Bretton-Clark Software, etc.	Expert Choice, Super Decision, Decision Lens, etc.

Difficulties	Some alternatives may be completely unacceptable so the choice set should be carefully designed.	No specific difficulties related to the method.
Best Use	Best used where the number of alternatives is very large, for example, design or of new products or modification of existing products, etc.	Best used when the final set of alternative is not too large.
Preference Aggregation	No guarantee that the aggregate results are based on individual preferences and not on the method of aggregation that varies depending upon the problem.	Using absolute cardinal scale and a restricted domain (strong Pareto principle) it is guaranteed that the preference aggregation is based on individual preferences and not on the method of aggregation (geometric mean).

CONCLUSIONS

Both conjoint analysis and AHP/ANP are tools for decision making and they are quite general approaches to decision making. AHP/ANP offers a more general framework for decision making while conjoint analysis has somewhat restricted domain of applications. AHP/ANP is best used when there are few alternatives to evaluate; while conjoint analysis is best used in situations like product redesign or new product development where numerous concept statements are prepared and evaluated through design of experiments.

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CONJOINT ANALYSIS AND AHP/ANP FOR GROUP DECISION MAKING

Khalid M. Dubas

Fayetteville State University

ABSTRACT

Social or group decisions should be based on reasonable rules for social choice or group decision making. Frequently individual decisions have to be aggregated to arrive at a social choice or group decision. However, most rules of individual priority or preference aggregation suffer from numerous problems. Arrow (1951) demonstrated that it was impossible to find a reasonable ordinal rule to aggregate individual preferences. A lot of literature has been developed on this subject but ordinal preference aggregation rules still fail to meet Arrow's conditions. Some literature provides "good" aggregation rules by restricting Arrow's criteria of a reasonable group decision rule. This article discusses issues relating to priority or preference aggregation for conjoint analysis and AHP/ANP.

INTRODUCTION

Requirements for a Reasonable Aggregation Rule

In 1951, Arrow required that rational individuals would possess reflexive, transitive, and complete preference orderings among alternatives under consideration and that a reasonable social welfare function or a collective choice rule should be based on individual preference orderings. More specifically, he required that any rule for aggregating individual preferences should satisfy the following four reasonable conditions.

1. Unrestricted Domain
2. Pareto Principle (Unanimity)
3. Independence from Irrelevant Alternatives
4. Non-dictatorship.

Arrow's General Impossibility Theorem

Arrow proved that there does not exist a social welfare function (or a collective choice rule or an aggregation rule) that would satisfy all of the above four conditions at the same time if there are more than two individuals who evaluate more than two alternatives.

A lot of literature has developed in group decision making since Arrow's path breaking work and attempts have been made to find a way out of this impossibility. Successful attempts for finding a way out of the Arrow impossibility have all required cardinal measurement and interpersonal comparisons of priorities or preferences. While there is plenty of literature on this subject, we discuss only two major works in this area.

TWO APPROACHES TO GROUP DECISION MAKING

Conjoint analysis and AHP/ANP (Dubas, 2009) for individual and group decision making will be discussed here. The former method uses ordinal or cardinal utility scale while the later uses an absolute relative scale. Both methods have axiomatic foundations and involve interpersonal value judgments. In addition, both of these methods are extensively utilized in practice to solve wide range of decision problems for individuals and groups.

The first major aggregation rule uses conjoint measurement (Keeny & Raiffa, 1999) that involves interpersonal judgment comparisons. Plenty of software is commercially available for conjoint measurement for individual and group decision making, for example, SAS (1993, 2009), SPSS (2009), and Adaptive Conjoint Analysis from Sawtooth Software (2009). For new product development or product modification, aggregation of utilities and market share simulation is conducted by using hierarchical clustering methods or other procedures like LINMAP (Gustafsson, Herrmann, and Huber, 2007). The second major method discussed here is AHP/ANP, i.e., Analytic Hierarchy Process and Analytic Network Process (Saaty, 1994, 2008; and Saaty & Peniwati, 2008) that shows that by restricting Arrow's four conditions, a "valid" social welfare function can be constructed. More specifically, the restricted versions of Arrow's four conditions (strong Pareto Principle and pairwise preference relations) can be satisfied if we utilize cardinal measurement scales and consistent reciprocal pairwise preference relations to measure individual preferences and then use geometric mean to aggregate individual priorities or preferences. To implement

AHP/ANP, the Decision Lens or Super Decisions software (Creative Decisions Foundation, 2009) can be used for individual and group decision making.

A COMPARISON OF CONJOINT ANALYSIS AND AHP/ANP

Comparison Criterion	Conjoint Analysis	AHP/ANP
Priority or reference measurement	Ordinal or cardinal utility	Absolute scale of measurement using the Fundamental Scale
Priority or Preference Intensity	Can use cardinal or interval scale to measure intensity	Ratio scale of measurement captures intensity of priorities or preferences
Rank reversal (Independence of Irrelevant Alternatives)	Can avoid rank reversal	Uses three different methods that may or may not allow rank reversal as desired
Consistency (transitivity)	No guarantee for consistency of priorities or preferences and no way to test for the absence of consistency.	No guarantee for consistency of priorities or preferences but checks inconsistency against a scale and allows reevaluation if inconsistency is not acceptable.
Method of aggregation	Depends upon the technique utilized.	Utilizes geometric mean for aggregation.
Availability of software	Extensive software – SPSS Conjoint, SAS Proc Transreg, JMP 8, Bretton-Clark; Adaptive Conjoint Analysis, etc.	Super Decision, Decision Lens, etc.
Proof that group choice is based on individual priorities or preferences	No guarantee that group choice is based on individual choices since Arrow's conditions may be violated for ordinal preferences.	Guarantees that Arrow's restricted four conditions are satisfied so the group's choice is based on individual choices and independent of the method of aggregation.
Applications	Widely used in academia, industry, and government	Widely used in academia, industry, and government
Major strengths	Best used for new product development or modification when a large number of alternatives are to be evaluated.	Best used when the number of alternatives is not too large (more than 9). However, problems involving a large number of alternatives could be solved by making groups of similar alternatives and then linking across groups through chains involving similar alternatives across groups.
Major weaknesses	Can violate independence of irrelevant alternatives assumption.	No known major weaknesses.
Allows interactions and feedback loops and chains	Allows interaction among criteria or alternatives	Allows interactions, loops, and backward and forward chains.
Axiomatic foundations	Yes	Yes
Ease of use	Easy to use with software but the burden of data collection on respondents increases as the number of alternatives increases unless proper design (fractional factorial) or adaptive conjoint analysis is utilized.	Quite easy to use by developing a hierarchy or network by working individually or in groups.
Allows for differentially weighting priorities or preferences of respondents based on their	Does not allow differential weighting.	Allows differential weighting by power or knowledge of respondents.

knowledge or power		
Flexible and Comprehensive Approach	Utilizes utility framework to synthesize all aspects of decision making.	Flexible and comprehensive – can utilize a unified framework by separately collecting and synthesizing priorities and preferences for costs, risks, benefits, and opportunities of various decision makers.

CONCLUSIONS

Situations involving group decision making are quite pervasive and numerous rules for aggregating individual preferences are available. However, Arrow proved that none of the ordinal preference aggregation methods would develop a reasonable group choice. Aggregation methods that utilize cardinal measurement may also fail to meet one or more of Arrow's four conditions unless additional restrictions are imposed. Conjoint analysis using cardinal measurement may meet restricted domain of Arrow's conditions but would involve interpersonal judgment comparisons. AHP/ANP also meets Arrow's four conditions by restricting the domain of individual and group priorities and preferences using pair-wise comparison based absolute cardinal scales and use geometric mean to aggregate individual priorities and preferences. It is reasonable, therefore, to recommend that decision makers should use AHP/ANP as their general purpose approach to decision making and may utilize conjoint analysis for specifically for new product modification or development and as input into AHP/ANP for elaborate decision making and strategic planning.

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ACCOUNTING IN SWITZERLAND

Harvey Man

Borough of Manhattan Community College

Stanley Chu

Borough of Manhattan Community College

ABSTRACT

Over 100 countries including Europe, Canada, Japan and China are either already using International Financial Reporting Standards (IFRS) or about to adopt them for their publicly listed companies. This paper discusses why Switzerland decided to adopt IFRS. It also describes the effects of adoption. Switzerland had a bad reputation for poor financial reporting. Switzerland understood the consequences of this notoriety. The country was one of the earliest supporters of moving from local accounting rules to global accounting rules.

INTRODUCTION

The paper starts with a description of the Swiss environment. The paper continues by discussing the reasons for change. The paper concludes with a discussion of the effects of switching to IFRS.

Swiss accounting did not enjoy a good reputation. Murphy (1999) stated that Switzerland is known for its political independence and stable economy. However, Switzerland had not gained the same respect for its accounting. Swiss corporate reporting has had numerous criticisms related to the lack of transparency, and not being entirely truthful.

Accounting in Switzerland Today - A Two-Standard System

Pricewaterhousecoopers (2008) according to the Switzerland office of the international accounting firm- PWC, Swiss accounting requirements are as follows:

- Listed companies must prepare consolidated financial statements using either IFRS or U.S. GAAP
- All other companies must use Swiss Accounting (Swiss GAAP) since 2005

Pricewaterhousecoopers (2008) states that Swiss GAAP focuses on small and medium sized organizations based in Switzerland. On the other hand, IFRS and U.S. GAAP are global standards which focus on Swiss multinational companies who are seeking financing in the capital markets.

Larson and Street (2004) point out that for tax reasons, individual Swiss companies do not follow IFRS or U.S. GAAP but use company law rules (Swiss GAAP). Income taxes are calculated on an unconsolidated level. The authors state it will be difficult to eliminate the two standard system due to the tax driven nature of the local accounting (Swiss GAAP). Deloitte Touche Tohmatsu (2008) agree with Larson and Street, the international accounting firm notes that even with IFRS in place, many countries will continue to require a local version of GAAP for tax compliance. There are two primary users of accounting information. The listed companies by using IFRS/U.S. GAAP are serving the investors and the creditors. The unlisted companies by using Swiss GAAP are mainly serving the government's needs for tax information.

The Swiss Environment

Radebaugh, Gray, and Black (2006) observe that a country's accounting system can be influenced by its legal systems, capital markets and corporate ownership.

Legal System in Switzerland

Lapointe, Cormier, Magnan, and Gay-Angers (2005) observe that the legal system in Switzerland provides very little regulation. Before 1992, the only set of accounting rules was that Swiss firms had to conform to the Federal Code of Obligations (company law) and this was last revised in 1936. Companies were not even required to publish financial statements and if they did, no specific format was required. Achleitner (1995) explains the rationale for not requiring published financial statements. The Swiss feared that providing the information would help the competition. However, there was a regulation that permitted a bona fide creditor to gain access to the financial

statements which were filed with the commercial registrar. It can be seen that data was not readily available to investors but was available to creditors. The company law was focusing on the needs of the creditors.

The lack of required financial statement disclosures provided managers with considerable discretion when preparing the financial statements. The authors criticized the system since it enabled managers to manipulate income. Lapointe, et al (2005)

Achleitner (1995) states a major revision in company law took place in 1992 which was intended to provide comparable data to satisfy the investors in the capital markets. The author observes that since the 1992 revision required published financial statements with minimum requirements it represented a considerable improvement. The author explains it was a step in the right direction but could have gone further.

Humphreys (1992) stated that despite the limitations the 1992 revision would improve transparency. The author believed that the traditionally secretive companies would suffer. These companies are now required to publish their financial statements and provide many disclosures.

Capital Markets in Switzerland

Ivey (2002) observed that the Swiss were outgrowing their domestic markets. There was a significant increase in institutional and foreign investors. The shareholder base was changing:

Year	Institutional Investors	Foreign Investors
1996	45%	35%
2001	60%	59%

From the table above, it can be seen that there is a significant increase in the percentage of both institutional investors and foreign investors. As Swiss companies looked for financing from foreign investors, they became open to adopting international accounting standards. Since Swiss accounting did not have a good reputation, Swiss companies changed from local accounting rules to international accounting rules in order to present foreign investors with a more favorable picture. Anonymous (1996)

Burton (1991) explains why Swiss companies began to change from local accounting rules to international accounting rules. The author states that foreign investors often complained of the lack of financial disclosures in Swiss financial statements. Analyzing the financial strengths and weaknesses of a Swiss company was decidedly challenging because the investors don't often have the benefit of in-depth financial reports.

Corporate Ownership in Switzerland

Murphy (1999) explains why the Swiss did not provide financials with detailed disclosures. There are two important points: (1) Many Swiss companies were family owned corporations (2) The low levels of capital dispersion resulted in a closer owner-manager relationship. Family-run businesses and owner/managers have intimate knowledge of the company's activities. Thus, detailed financial disclosures were not a priority.

The website of Switzerland noted that the country was criticized for having limited minority shareholder rights. A very restricted number of people (estimated at about 100) sit on the boards of many different companies, making decisions with little reference to ordinary shareholders. Swissworld (2008).

Bank Officials Had an Extraordinary Relationship with Swiss Companies

Missonier-Piera (2004) noted that most of the financing came from local banks. The author points out the unique relationship of the bank officers. The bank officers are on the board of directors of numerous Swiss corporations. Since the bank officer was a board member, they had access to the intimate financial details of the company. This was another condition where there was a limited need for additional disclosures.

Reasons Why Switzerland Changed to IFRS/U.S. GAAP

Camfferman and Zeff (2007) state that in late 1980s, the Swiss began to understand the need for the modernization of its financial reporting. This was largely in response to providing information for the capital markets. In 1989, Nestle switched from Swiss GAAP to IAS standards after allowing foreigners to own stock and its listing on the London Stock Exchange. Roche & CIBA (Novartis) followed in 1990. Murphy (1999) states that Novartis adopted international rules to send a message to the investors. Novartis wanted the investors to know that there are no special rules or hidden reserves. The Swiss multinationals became the most prominent adopters of IAS standards in the 1990's. At the end of 1999, 33 out of 42 Swiss companies were using IAS standards which was

unmatched by other European countries. The Swiss led the movement in Europe to adopt international accounting standards.

Lapointe, et al (2005) state that the motivation for change was due to the following factors:

- Complaints by foreign investors about the lack of disclosure
- Obstacles to shareholder activism
- Public discussions of excessive executive compensation

The above problems did not occur when Swiss companies were family owned or run by owner/managers. When the Swiss began to seek financing in the capital markets, they had a new set of users of accounting information who wanted transparency.

Effects on Swiss companies of adopting IFRS

The Switzerland office of the Big Four International CPA firm of Ernst & Young states that the change from Swiss GAAP to IFRS is a major change that will improve transparency of the financial statements. As touched on earlier in this paper Swiss GAAP is geared toward tax information. Swiss GAAP is very flexible and permits manipulation of income which often is done to produce stable amounts of income. Stability in earnings was highly valued. Under IFRS, Swiss companies will have to learn how to deal with volatility in both the balance sheet and the income statement. Management will be challenged in providing the markets with a fair presentation of financial performance. Formerly the main users of the financial statements were the owners or the creditors. When entering the capital markets, Swiss companies will now be benchmarked against cross-border competitors. Analysts will be comparing key performance indicators such as financial ratios. As a result, if a company presents net income in a less than transparent manner, there will be no place to hide. Swiss company law provided protection to Swiss companies by permitting income manipulation through the use of the hidden reserves. IFRS does not permit the use of hidden reserves. E & Y states the days of semi-protected financial reporting are over. Anonymous (2006).

A Swiss company's experience with switching from Swiss GAAP to IFRS

Publigruppe, a Swiss company adopted IFRS in 2005. Since two years of financial statements are required, the prior year 2004 also required restatement into IFRS.

The change had a huge impact on stockholders' equity. The stockholders' equity increased by 134 million Swiss francs. This was largely due to the IFRS requirement that intangible assets and real estate from a business combination be reported at fair market value. In contrast to Swiss GAAP which records the items at a much lower book value. This caused both the assets and the equity to increase by 145 million Swiss francs. This was partially offset by an 11 million Swiss francs increase in liabilities. This was due to the IFRS requirement to record liabilities related to employee benefits. Swiss GAAP does not require the recording of these liabilities.

The impact on the income statement was an increase of 3 million Swiss francs. The changes were mainly due to reclassifications. The company states that since IFRS requires that changes (unrealized gains and losses) in the fair value of investments be included in income, it expects future volatility in earnings. Publigruppe (2006). The experience of Publigruppe on the company's balance sheet is a typical for most Swiss companies. However, the effects on earnings vary among Swiss companies.

What do Swiss CFOs think of IFRS?

In 2005, the year the European Union required their member states to use IFRS. Switzerland is not a member of the EU but chose to adopt IFRS as well. Pricewaterhousecoopers surveyed 50 chief financial officers in Switzerland about their attitudes toward using IFRS. The international CPA firm found that Swiss companies were amongst the leaders in calling for the use of IFRS. The study found that 94% of the respondents already had an excellent or working knowledge of IFRS as compared to only 39% in the total European population. This paper has shown that the Swiss have embraced international accounting rules since the late 1980's. 86% of the respondents indicated that IFRS should be mandatory for listed companies. In addition, most (76%) believed that the IFRS should be accepted as is rather than creating a European version of IFRS. The report stated that for Swiss IFRS preparers, the most significant challenge in the conversion process was the impact of a company's merger and acquisition strategy. Pricewaterhousecoopers (2005)

CONCLUSION

Switzerland's accounting has changed in response to the changes in the users and the evolution of the capital markets. The country has adopted global accounting rules for listed companies but continues to use local accounting rules for unlisted companies. The response to the adoption has been generally favorable.

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THE DEMARCATION OF ACADEMIC SISTERHOOD: EXAMINING MULTIRACIAL NETWORKS AMONGST WOMEN IN HIGHER EDUCATION

Dannielle Joy Davis

University of Texas at Arlington

ABSTRACT

This work looks at the development of women's faculty writing groups as forms of social activism and their affect upon the community engagement and productivity of group members. Via comparing one Black and one mixed-race writing group, preliminary findings suggest that academic productivity in terms of grant writing and research production was higher for the Black group, whose members held common social justice and activist interests. Characteristics of the non-activist, multiracial writing group included lack of commitment to social justice issues, disinterest in collaboration, and subsequent low academic output and engagement with the outside community. Observation of the two featured groups, exemplifies how in academe, Black women continue to be viewed as racial ambassadors or unappreciated guests, rather than peers to their White colleagues. The paper concludes with strategies geared towards developing and maintaining healthy networks between Black women and their White sisters.

INTRODUCTION

The following examines the development of faculty writing groups as forms of social activism and their effect upon the mutuality, community engagement, and productivity of group members as related to the race of participants. Observation of the featured writing groups models how postsecondary faculty can work more collaboratively and link research and service, thereby directly moving knowledge beyond university walls and into local communities to promote social justice.

REVIEW OF LITERATURE

While little current research has been conducted on writing groups, work that does exist offers insight into their value in promoting productivity and satisfaction in the academic workplace. In looking at writing groups as a strategy for research development, Lee and Boud (2003) found mutuality, moving writing from the periphery to "normal business" in work environments, identity, and desire as key to academic work. Mutuality moves beyond surface collegiality to peer reciprocity and genuine commitment and interest in "developmental goals, the needs for change and development of its members in meeting those goals, and working to build collective strategies to meet those needs" (p. 194, 2003). Writing as normal business involves incorporating writing as central to practice in the workplace, while intellectual or professional desire and identity are noted as elements that sustain writing groups (2003). Similarly, Aitchison and Lee (2006) note that research writing pedagogy proves most effective when members hold common identification, such as interest and life experiences, peer review and learning, and establishing a sense of community.

METHODS

This study utilizes a case study approach to understand the outcomes of the featured women's writing groups. The primary sources of data for this work include documents, such as minutes from group meetings and emails, and the author's reflection and observation as the convener of both groups as recorded via journaling.

Participants

Participants of this study include a convenience sample of two groups of women, ranging from ages 28 to 51, employed as university faculty. The first group comprised five African American women and represented the fields of Education, Social Work, and Engineering. The second group of six individuals included two African Americans, three Whites and one Asian representing the areas of Education, Engineering, and Sociology. The first group consisted of one tenured member and the second had one member going up for tenure the year of the group's formation. Both writing groups took place at public, research-oriented postsecondary institutions. Participation in these groups was optional.

FINDINGS

Via comparing two writing groups, the work found that mutuality and academic productivity in terms of grant writing and research production was higher for the same-race women of Group 1, where members held common social justice and activist interests. Characteristics of the multi-racial, non-activist group (Group 2) included lack of commitment to social justice issues, disinterest in collaboration, and subsequent low academic output and engagement with the outside community. This work mirrors the findings of Aitchison and Lee (2006), which suggest the importance of holding common interests and life experiences, as well as having a sense of community in effective writing groups.

CONCLUSION

In academe, writing groups promise to increase access via heightened productivity of junior members which may open doors professionally through mentorship from tenured colleagues. These increased possibilities for mentorship and professional engagement of group members may positively influence prospects for promotion and tenure.

Regarding lessons learned with work in writing groups, it is advised that conveners be careful with whom they collaborate. All group members must have a commitment to being productive. Preliminary results of this study mirror the findings of prior research on effective writing groups while also contributing to the literature by identifying mentoring roles group members may play in such partnerships.

Mutual respect must be present for fellow writing group members' scholarship, as well as for members' racial and cultural backgrounds. Today's scholars, regardless of race, should acknowledge our global context and actively seek ways to understand the varied cultures and people who inhabit it. Diversity training and workshops, as well as forming meaningful professional relationships with colleagues of different races (either informally or through a formal professional or mentoring program) may assist majority individuals with racially monolithic experiences to shift to less prejudiced, holistic world views and practices. Progressive action from the center will facilitate marginalized movement from the periphery.

Whether race and culture played a dominant role in the high level of mutuality and productivity of the Black group remains an empirical question. Future work in this area will seek to interview and survey faculty and recent administrative participants on their experiences in such collaborations, as well as their professional impacts. Such work promises to inform faculty developers of strategies for promoting collegiality in academe across racial and cultural lines. This research may also offer insight into the working relationships of Black and White women that may improve professional productivity and collaboration between these groups.

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RACE AND PRIVILEGE IN COLLEGE CLASSROOMS: HELMS' RACIAL IDENTITY MODEL AS A FRAMEWORK IN UNDERSTANDING MAJORITY FACULTY AND STUDENT RESPONSES TO THE EXPERIENCES AND PERSPECTIVES OF RACIAL MINORITIES

Dannielle Joy Davis

University of Texas at Arlington

ABSTRACT

Helms' Racial Identity Model for Whites provided a framework from which to understand the classroom dynamics within northern and southern settings between the author, a woman of color, and the majority members of the featured student and faculty groups. Journaling, observation, and student evaluations were used as data sources for the preliminary qualitative work.

INTRODUCTION

While the election of Barack Obama as the 44th President of the United States indicates a degree of racial progress, Cornell West warns that this is only the beginning of the end of the Ice Age, or the age of indifference to the marginalized and suffering in our society. The long history of our country's use of race as a basis to exploit (as with the institution of slavery) and dehumanize (as with Hurricane Katrina) coupled with the lower frequencies of the spirit that promotes such actions, cannot be erased by the election of one man. Rather, Helms suggests that racism or lack thereof may be understood through specific psychological stages. It is this work that inspired me to view some of the racial micro and macro aggressions of less enlightened students and colleagues I have encountered on my academic journey in an alternative light.

As a new scholar, I had the opportunity of co-teaching two courses in vastly different sociopolitical contexts. The first, a course on race, class, and gender at a Northern institution; and the second an educational policy course taught at a Southern university. This case study focuses upon my interactions with students and White female colleagues at these sites. Helms' Racial Identity Model for Whites (Helms, 1990) provides a conceptual frame from which to understand classroom and workplace dynamics between myself as a Black faculty member and these two groups.

CONCEPTUAL MODEL: WHITE RACIAL IDENTITY EGO STATUSES AND INFORMATION PROCESSING STRATEGIES

Helms' Racial Identity Model for Whites, both the statuses and the information processing strategies employed when responding to racial stimuli is utilized as the conceptual frame for data analysis. The following reviews the statuses, strategies, and the data as they relate to the model.

Conformity Status is displayed by the satisfaction with racial status quo, obliviousness to racism as well as one's participation in it. Racial factors influence life decisions in a simplistic fashion. The Information Processing Strategies employed includes contact-denial with the marginalized group, obliviousness, or avoidance of anxiety promoting racial information. An example of this occurred in the southern classroom, as incivilities of two students, one who left the room repeated times and another who talked throughout a film on Black men in education, despite reprimand from the instructor and disapproving classmates. Physically removing themselves from the room and talking during the documentary featuring race related material may have served as a form of denial or avoidance for these students.

Disintegration Status occurs during disorientation and anxiety promoted by irresolvable racial moral dilemmas that force one to choose between his or her own group loyalty and humanism. The Information Processing Strategies at this stage are confusion, disorientation, and suppression of information. This occurred in the north and was illustrated in one student's expression of discomfort learning about the past and present injustices suffered by racial minorities in the U.S. She noted that exposure to this material "made her feel bad about" herself.

Reintegration Status is exemplified in the idealization of one's socio-racial group and the intolerance or denigration of other groups. Racial factors might strongly influence one's life decisions. The Information Processing

Strategy used is the distortion of information in an own group-enhancing form. For example, in the North, one student likened the Black Panther Party to the Ku Klux Klan. I corrected the student noting the historical genesis of both groups, the former rooted in self-defense against a racist system, and the other as a form of terror towards the marginalized.

The Pseudo independence Status is the intellectualized commitment to one's own socio-racial group and tolerance of other groups. One may make life decisions to "help" other racial groups in a deceptive, disingenuous manner. The Information Processing Strategy utilized involves transforming racial stimuli to fit one's own "liberal" societal lens. This occurred during one colleague's reluctance to discuss student disrespect of me as an instructor, stating that she didn't see the offense; hence the occurrence did not happen. Another example of this was when a southern White male discussed a connection between Black males, baggy pants, and the style's prison origins. When asked whether or not this was a function of race or class, he suggested it was a function of race, rather than class. He was the same male who was disruptive during the documentary on African American males. This exemplifies how individuals may utilize more than one Information Processing Strategy when taking in race related material.

The Immersion-Emersion Status prompts one to seek an understanding of the personal meaning of racism, the ways one benefits, and to redefine Whiteness. Racial activism may be a life choice here. The Information Processing Strategy used involves reeducation and searching for racial standards defined internally. This stage was exemplified via the northern colleague's openness to discussing and confronting differential treatment from White students of us as instructors during a specific class session. For instance, when I posed questions to students, some would only look at my White colleague when answering me.

Finally, the advanced Autonomy Status occurs in the use of internal standards for one's self definition, an informed positive social-racial group commitment, and a capacity to relinquish the privileges of racism. The Information Processing Strategy involves a flexible analysis and response to race issues. An example of this is one colleague's willingness to split her salary with me as a co-teacher even though this was not required or requested of her. This was her effort to actively counter potential economic exploitation of me as a young instructor.

METHODS

Using a case study approach, journaling, observation, and student evaluations are employed as data sources for this work. As co-instructor, I chronicled my experiences and observations following each class session. Triangulation of data occurred via settings or regions and demographics of the students in terms of age and socioeconomic background.

SUMMARY OF RESULTS

The majority of students at the southern university did not move beyond the pseudo-independence status. However, the northeastern students displayed thoughts and behaviors at every status, including the final most advanced stage of autonomy. The co-teacher at the immersion status possessed strong communication and collaboration skills and collegially worked through challenges. The co-teacher at the less advanced pseudo-independence level was less willing to confront race issues directly and collaborated less. Quality experiences with colleagues and students often reflected the status that the individuals resided within.

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CONTENT ANALYSIS OF MANAGING CULTURAL DIVERSITY SYLLABI FOR DETERMINING RELATIVE IMPORTANCE OF COURSE SYLLABI ELEMENTS

Srikrishna M. Govindaluri
Ramapo College of New Jersey

Milton M. Gittens
Ramapo College of New Jersey

ABSTRACT

The research presented in this paper is a content analysis of a number of courses on managing cultural diversity offered at various institutions. In order to improve the effectiveness of the existing courses, research has been conducted to develop methods to analyze the contents of the various syllabi. One of the key goals of these analyses is to establish the relative importance of the various process/content elements within the syllabus. In this research, syllabi of a several courses were analyzed to define modules and two levels high and low for each module, consisting of carefully selected keywords that represent the course. A conjoint analysis was conducted where eight alternative course profiles were generated using high and low levels of the modules based on a fractional factorial experiment and respondents were asked to rank these profiles. The relative importance of the modules was determined from the ranking data from the survey.

INTRODUCTION

Cultural diversity refers to the culturally significant differences between individuals in a social system; for example, an organization, a neighborhood, or a country. It is a subset within the broader concept of diversity that primarily considers the differences between individuals on resulting from nation of origin, language, race, religion, language, tribe, and values. Globalization has made multiculturalism a fundamental reality of the modern organization's external environment, having significant impact on its access to markets, resources, people, and products. Immigration and demographic trends have made cultural diversity increasingly important to the internal dynamics of the modern workplace. Cultural diversity is not only an important public policy goal, but also of great value in creating high quality of work life and increasing productivity.

The topic of cultural diversity has traditionally been considered important in order to ensure representation of minorities, fairness, and improved access to culturally diverse markets; however, in the recent past it has received more attention as a way to increase creativity, innovate, and increase productivity. Organizations throughout the globe are trying to recruit employees who possess knowledge and skills related to managing cultural diversity to succeed in the increasingly cross-cultural environment in which they operate. They are actively seeking knowledge that would enable them to implement systems that can sustain, promote, and utilize cultural diversity in an effective fashion. In order to help organizations develop their current and potential employees to understand and manage cultural diversity, academic scholars and industry professionals are actively collaborating to design and conduct research and programs that would assist organizations in achieving diversity objectives. These efforts have led to the development of academic courses and training programs that intend to educate individuals and sustain a healthy and effective environment that values cultural diversity. One may refer to the study of the courses offered by a number of schools in the United States (Day and Glick, 2000). Nevertheless, considering the growth in scope, magnitude, and dynamicity of cultural diversity the research effort focused on enhancing education in managing cultural diversity is far from adequate.

In this paper, a study of courses offered at academic institutions, dealing with managing cultural diversity and closely related topics is presented. Cultural diversity is a vast topic and the design of a course can be based on few selected subtopics. For example, some courses discuss the aspects of cultural diversity that are more relevant in a domestic setting whereas others may focus more on global cultural diversity issues that result from differences between national cultures. A number of courses may consist of a combination of cultural diversity issues, both, domestic and global. As part of our research project, a number of syllabi from schools across the globe were collected. The syllabi were analyzed for their contents in order to develop a set of modules intended to represent the collective contents of the collected syllabi. The modules are a brief and convenient representation of contents using a set of carefully selected keywords. A finite number of course profiles were generated using the predefined modules and *conjoint analysis* (Green and Rao, 1971) was performed that involved ranking of the course profiles by

managers in organizations. The rankings were then used to determine the relative importance of the various modules and pedagogical methods in developing students with skills and knowledge required to survive and perform in a multicultural environment. The final output can be extremely useful to academics and managers in organizations in designing courses for teaching managing diversity skills in cross cultural environment. At the same time, our research can be of interest to people from education and industry; they can compare the knowledge and skills needed of employees assessed in real world work environment practice with the learning experience offered by the state-of-the-art managing cultural diversity courses. Such a comparison can lead to effective ways to reduce the gap between needs of organizations and education offered through academic courses.

CONJOINT ANALYSIS

Conjoint analysis is one of the widely used methods in marketing research to assess the relative importance of multiple attributes using rank ordered data. In other words, individuals are presented with various multiattribute alternatives or profiles that are constructed using varying levels of the same set of attributes. For example, profiles of flight alternatives can be generated using attributes such as route, carrier, price, and type of airplane. For each of these attributes, levels can be defined. Thus, profiles can be defined using attribute-level combinations as follows: Route: direct, one stop, and two stops; Carrier: National Airlines, Alpha Airlines, and Pacific Airlines; Price: \$250, \$320, \$400, \$550, and \$810; Type of airplane: jet versus nonjet

One example of a full profile can be a direct Intercontinental Airlines flight in a jet type airplane costing \$810. The number of profiles is often reduced using techniques from experimental design to manage the judgmental effort required to rank the profiles. The profiles are ranked by individuals; the ranks are then used to determine the relative importance weights of the attributes. The procedure of conjoint analysis was used in psychometric research studies by Luce and Tukey (1964). Green and Rao (1971) employed this method for the first time in marketing research studies. During the past three decades, conjoint analysis has been advanced by a number of researchers working in multidimensional scaling methods and other topics resulting in adaptive conjoint analysis and choice based conjoint analysis. Adaptive conjoint analysis can be used to rank alternatives that possess more than twenty attributes. A review of the commercial use of conjoint analysis methods is presented by Green and Srinivasan (1978) and Catin and Wittink (1982, 1989). The traditional or full profile method used in this study where the overall utility is sum of the part worths of the levels of attributes used in constructing the profile.

SELECTION OF SYLLABI

Twenty three syllabi were selected from undergraduate and graduate management courses teaching culture. Eight were selected from the American Assembly of Collegiate School of Business (Ferdman, 1994) resource book. Fifteen, more current syllabi, were collected from schools across the globe using a systematic internet search. These syllabi took a more global view of culture, as opposed to the eight older syllabi, which took an American domestic multiculturalism perspective. Because of this we believe that our sample constitutes a valid representation of cultural diversity courses presented in the recent years.

We settled on syllabi based upon the following criteria. Syllabi with the terms "Management" and "Culture" were accepted. Within this group there were many syllabi that contained varying degrees of managerial skills versus experiential learning modules. We eliminated those that contained less than fifty percent management skills. Other syllabi covered general diversity issues as if they were cultural diversity issues. Therefore, we further eliminated those that did not address culture as defined by Keesing, 1974.

SURVEY METHODOLOGY

A course on managing diversity can typically contain a variety of topics dealing with diversity issues related to domestic and global categories. Courses teaching topics in managing cultural diversity offered by various schools were studied to identify the different areas of cultural diversity discussed. The topics identified are presented as modules in Table 1. Most courses can be represented as a combination of a subset of these modules.

Table 1. *Keyword Descriptions of Low ["L"] and High ["H"] Levels for Modules*

Module	Levels	Descriptions of levels using sets of keywords
Module 1: Understanding Culture and Cultural Systems	Low	1. Cultural relativism, 2. Stereotyping, 3. Cultural identity
	High	1. Cultural relativism, 2. Stereotyping, (prejudice, discrimination), 3. Cultural frameworks, 4. Cultural identity, 5. Developing cultural sensitivity, 6. Intercultural communication
Module 2: Globalization and Cultural Diversity	Low	1. Organizations and global cultural diversity, 2. Dimensions for studying national cultures, 3. Hofstede's framework and GLOBE studies
	High	1. Immigration and internationalization trends, 2. Organizations and global cultural diversity, 3. Dimensions for studying national cultures, Hofstede's framework and GLOBE studies, 4. Evolution of global cultural frameworks, 5. Communication in multicultural groups, 6. Ethics and cultural diversity, 7. Major international cultures in the world
Module 3: Diversity legislation and Public Policy	Low	1. Overview of diversity legislation, 2. Brief description of diversity legislation in North America and Europe
	High	1. Overview of Diversity legislation in North America, Europe, 2. Diversity and public policy, 3. Detailed study of affirmative action, positive integration, and other policies, 4. Specific issues concerning the domestic diversity topics
Module 4: Managing Cultural Diversity: Organizational Perspectives	Low	1. Building an effective global team 2. Impact of national culture on group decision-making, communication, and work values, 3. Training in multicultural differences
	High	1. Building an effective global team, 2. Impact of national culture on group decision-making, communication, work values, team work, commitment, and negotiation, 3. Leadership concepts in globally diverse organizations, 4. Training in multicultural differences, 5. Models of multicultural organizations, 6. Measurement criteria for diversity management
Module 5: Pedagogical methods employed	Low	Lecture + videos + case studies
	High	Lecture + videos + experiential/field work project + case studies + role playing exercises +reflection

The purpose of our survey is to determine the relative importance of these modules as perceived by managers/administrators in organizations. The modules represent the attributes used to define flight profiles in the second section. A conjoint analysis study as discussed in the second section was selected as the methodology to determine the relative importance of the modules presented in Table 1. For the purposes of conjoint analysis, candidate course profiles (CPs) in terms of the modules were defined by following the full profile method of conjoint analysis (Green and Srinivasan). The candidate CPs are ranked by subjects (managers or administrators). Subjects or participants for the study included administrators or managerial personnel in organizations. Ranking multiple CPs can entail considerable judgmental effort; hence the number of CPs is rendered manageable by presenting a reasonable number of CPs generated using fractional factorial experimental design. A full factorial design would require too much effort, on behalf of the subject, to be practical. A CP in our research study is a combination of four course modules and pedagogical methods; the contents covered in a module depend on whether the level of the module for a CP is adjusted to "low" or "high." The CPs are generated by changing the levels of the modules between low and high. A sample course profile can be written as follows: Module 1- *L*; Module 2 - *L*; Module 3 - *H*; Module 4 - *H*; Module 5- *L*.

EXPERIMENTAL DESIGN FOR CONJOINT ANALYSIS

In Table 2, a value of -1 indicates level *L* and a value of 1 indicates level *H*. A full factorial run of 32 runs would involve tremendous judgmental effort; hence a fractional factorial experiment consisting of eight runs was selected. The main effects are aliased with higher order interactions; it is assumed that the higher order interactions are insignificant.

Table 2
Form Used to Collect Ranking Data

Enter ranks below	Course Profile #	Module 1	Module 2	Module 3	Module 4	Pedagogical Methods
Rank ____	1	L	L	L	H	H
Rank ____	2	H	L	L	L	L
Rank ____	3	L	H	L	L	H
Rank ____	4	H	H	L	H	L
Rank ____	5	L	L	H	H	L
Rank ____	6	H	L	H	L	H
Rank ____	7	L	H	H	L	L
Rank ____	8	H	H	H	H	H

Eight profiles were constructed using the above experimental design and presented to subjects for ranking purposes. The profile card describes levels *L* and *H* in terms of time demands and actual scope of coverage. Once the profiles were ranked the following methodology was used to determine the relative importance of the modules.

RESULTS

The questionnaires from respondents were summarized to determine the relative importance of the attributes as shown in Table 3. The procedure described in Hair *et al.* (2006) was used determine the relative importance of modules.

Based on the responses from survey participants, it can be seen that selection of pedagogical methods is the most important attribute when designing courses on managing cultural diversity. As regards the contents, administrators consider module 2 *Globalization and Cultural Diversity* to be the most important followed by module 1 *Understanding Culture and Cultural Systems*.

Table 3 Summary of Results

Modules/Attributes	Levels	Average part Worths	Range of part worths	Relative importance of attributes (modules)
Module 1	L	0.681779	1.363557	17.48
	H	0.681779		
Module 2	L	0.818134	1.636269	20.98
	H	0.818134		
Module 3	L	0.46361	0.927219	11.89
	H	0.46361		
Module 4	L	0.790863	1.581727	20.28
	H	0.790863		
Pedagogical methods	L	1.145388	2.290777	29.37
	H	1.145388		

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TEACHERS' PERCEPTIONS IN ADDRESSING THE NEEDS OF DISPLACED STUDENTS FOLLOWING A CRITICAL INCIDENT

Mae Ellis Daniel

Walden University

Dana Rolison Harwell

The University of West Alabama

Brian Grizell

Walden University

ABSTRACT

Hurricane Katrina highlighted the problem of teacher needs when serving students who have experienced a critical incident. The purpose of this single case study was to describe the experiences and needs of teachers who received into their classroom one or more students displaced by a critical incident, Hurricane Katrina. Specifically, using a survey with independent samples *t* test analysis, this study examined differences, by grade level, years of experience, and education level, in teacher perception of their addressing needs of displaced students. For the survey, a random sample was drawn from a single district population of K-5 teachers who had in class at least one student displaced by Hurricane Katrina. Results of the survey (66% response rate) indicated no differences based on grade level taught or teacher educational level. However, teachers with fewer than five years of experience showed significantly less teacher self-efficacy. The findings contain implications for social change in that they demonstrated need for a plan to assist teachers in meeting the needs of critical incident students and a need to provide teachers with appropriate professional development.

INTRODUCTION

A single case study that took place at the North Central School District where approximately 760 children displaced from Hurricane Katrina had enrolled. These children relocated from Louisiana and southern parts of Mississippi. This study placed an emphasis on how teachers portrayed their experiences in the classroom following Hurricane Katrina. Teachers were asked to describe how prepared they were in meeting the needs of displaced students. This study was guided by the critical incident theory formulated by Flanagan (1954). Flanagan defined a critical incident as a disastrous event that is so severe that it could affect the mental and physical capabilities of a human. According to Flanagan, natural disasters were considered critical incidents; therefore, Hurricane Katrina could have affected the mental and physical capabilities of students who had lost their homes and had to relocate to another region.

RELATED LITERATURE

The literature review correlated with the study in that it is important to understand the impact that traumatic incidents make on schools, classrooms, and children. The study examines a variety of disaster related experiences that could have a negative effect on the education system and classrooms in general. To gain a better understanding how teacher efficacy affects student learning, a section of teacher efficacy is also presented.

Disasters

School shootings are violent acts that are of great concern to school officials. Dorman (2003) conducted a quantitative study relating to safety issues in schools because of the shootings. With the school shootings and safety issues in mind, researchers were prompted to question the preparedness of schools when handling a crisis. This study examines how school psychologists feel prepared for responding to an emergency. Dorman sent surveys to a sample of school psychologist regarding the school's emergency plans and practices. In this study, 87 school psychologists responded to the surveys. From the 87 participants, 67% indicated that their schools had an emergency plan intact. Dorman (2003) pointed out that the participants in this study had great concerns of school safety

throughout the country. Concerns were directed toward disaster involved in violence, disasters involved from acts of nature, disasters involved from accidents and disasters involved from intruders such as terrorist.

Dorman (2003) reported that schools using a community-based model had revealed a more comprehensive plan than those using a school-based model. Results had shown the need for community involvement and a one-time training of how to use emergency plans. Faculty training of the use of disaster related preparedness program were found to increase the confidence of the school officials when faced with a disaster.

Ingenito (2004) conducted a qualitative study exploring the perceptions of school superintendents on how a tragedy could impact the school's organization. On September 11, 2001 terrorist killed thousands of people when hijacking jetliners and flying into buildings. The cruelty of this event heightened the awareness of how vicious terrorism could force school systems to revise beliefs in leadership roles. During this study, ten interviews were conducted by telephone with New Jersey school superintendents. These interviews were conducted to gain understanding of the insights, sentiments and opinions of how administrators felt disasters affected the school systems. This study questioned programs and policies, curriculums and psychological aspects of the current impact and future occurrences. An open-ended set of questions were used. The subjects were encouraged to speak freely and were not interrupted a great deal. In this study it was discovered that no participating school superintendents felt they were adequately prepared for a disaster as great as the 911 Terrorist's Act. This study found that children from these schools were experiencing a higher level of stress, anxiety and depression than before the disaster.

Barouk (2004) conducted a quantitative study examining the relationship of stress levels and avoidance of a disaster of two groups of teachers following the attack of the World Trade Center on September 11, 2001. Independent variables included proximity of the event, age, gender and control. The dependent variable was avoidance, a symptom of Post Traumatic Stress Disorder. This study used data from four New Jersey public schools and three Manhattan public schools. Proximity, age and gender were found to be a predictor of avoidance. Female teachers and older teachers experienced higher levels of avoidance than males or younger participants. These finding reflect culture norms in terms of males who tend to hold back or mask feelings more than females. In contrast to the literature review, this study found that acts of terrorisms were more traumatizing to older participants than those who were younger.

Brandt, Pfefferbaum, & Pfefferbaum (2004) conducted a study on a private school in New York City to report teacher's responses, needs, interests and how prepared they were for a disaster such as the September 11, 2001 terrorist attack. This study selected 32 teachers to participate in the study. Their ages ranged from 25 to 72. Their teaching experiences ranged between 3 to 46 years. In this study, 32% of the teachers had more than 10 years of teaching experience. Brandt & et al. (2004) reported that teachers developed coping methods through communicating with others such as friends or health professionals. However, these teachers did not feel they were adequately trained to intervene and provide assistance for children in their classrooms following a terrorist attack. In this study, one teacher reported that alcohol was used as a coping method. After a crisis, it is expected that schools provide for the needs of children who have been affected by a disaster. Health programs and social service programs help these children to recover by addressing needs. The schools should be viewed as a safe, secure and supportive institution that enhances effective services.

Foresto (2005) conducted a dissertation study that examined the responses of adolescents following the attack of the World Trade Center on September 11, 2001. From the very beginning, this disaster generated a great deal of emotional response from the society. In this study, 541 adolescents ranging from ages 14 through 18 were used. These youths attended a Catholic high School in Suffolk County, New York. Participants in this study were issued self-report packets in which the students completed at home or in the classroom. All the participants received the same packet. Adolescents reported high levels of intimacy and use of coping strategies.

Teacher efficacy

Collier (2005) defined teacher self-efficacy as a belief system of teachers with reference to their perceptions of how efficient they are at teaching. Consequently, teachers' self-perceptions of teacher efficacy directly influenced how they taught. In other words, when teachers possessed higher levels self-efficacy in turn they were better teachers. In another study, Ware (2007) found that teachers with higher levels of teacher self efficacy were more capable of overcoming challenges in the classroom and could continue to teach well following an emergency. For this reason, this study examined teachers' perceptions of self-efficacy following Hurricane Katrina. Topics addressed included teacher efficacy and teacher's perception of self, teacher efficacy and student performance, teacher efficacy and student's social adjustments, teacher efficacy and solving conflicts, and teacher efficacy and culture.

Collier (2005) pointed out that higher levels of self-efficacy in teachers could enhance student learning.

Therefore, teachers with higher levels of self-efficacy were reported to be more successful as educators in the classroom. Collier described these successful teachers as ones that recognized they played a significant role in student learning and set higher goals for their students. Furthermore, these teachers expected more from their students and were more apt to take personal responsibility for their student's education endeavors. Collier rationalized that not only did teachers with higher levels of self-efficacy set higher goals for their students, but they established a set of higher goals for themselves and the teaching profession.

Collier (2005) reported that in addition to goal setting, teachers with reported higher self-efficacy perceived themselves as partners in education with students, and spent an abundant amount of time addressing their needs as a learner. Furthermore, motivation was a key factor in which these teachers believed they could teach any child who wanted to learn. For the child to become motivated in learning, these teachers realized the need for their students to understand that they were cared for, or learning would significantly be reduced.

Ware (2007) found that teachers who had shown self-efficacy were educators who were more probable to plan activities for students with learning disabilities. In addition to planning appropriate activities, these teachers had demonstrated greater effort in locating teaching materials to accommodate different learners. These teachers had demonstrated superior job performance as well as confirmed themselves as a committed educator. In fact, teachers with higher self-efficacy were more apt to remain optimistic during challenging events and put out more effort than their co-workers. On the other hand, teachers with low self-efficacy were found to blame outside factors when things did not go so well.

Ware (2007) reported that the commitment to teach is enhanced when teachers were comfortable in asking for help from their principal. Ware explained that teachers felt more in control when they had influence over educational policies and had adequate control over the curriculum. For this reason, Ware felt that administrators should keep staff members informed of future plans and rule enforcements directly involving them as a teacher. Further, Ware felt it was important for the teachers to have clear expectations and clear understanding of what is expected. Additionally, they should be given opportunities to become more involved with decision making processes. These decision making processes included establishing a curriculum, determining contents of staff development for teachers, participating in the hiring process, establishing discipline policies, and budgeting planning.

Fredriksen (2004) suggested that while most research focuses on academic performance, there is increasing evidence in how teachers influence children as they become socially adjusted to the school system. In a preschool setting, it was found that when children felt affectionate toward the teacher, that fondness moderately compensated for the absence of the mother. Therefore, this type of bond between the teacher and the student aids in the development of the child's social behavior in the school setting in a positive manner.

Fredriksen (2004) reported that during the elementary years, students who felt closer to the teacher were found to be more socially and emotionally adjusted to school. Furthermore, students who bonded with their teachers were found to get along with their peers better than those who did not. In middle school, it was found that students who purposefully sought teacher approval had fewer problems in adjusting to a new environment, had higher self-esteem, and suffered lower levels of depression. These findings suggested that teachers should find ways to lessen the stress that is associated with school and provide more opportunities with interaction between themselves and their students.

Curran, Tomlinson, and Weinstein (2003) pointed out that teachers need to be able to understand their own self-worth as well as that of others. First of all, educators must recognize that every person has culture, with a unique set of beliefs, preconceptions, and presumptions about how humans should behave. Secondly, teachers must recognize differences in students concerning culture, race, and ethnicity. To achieve fairness teachers must overcome subjectivity and learn about the background of all their students. Last of all, it is important that teachers understand ways in which schools replicate and bring about unfair practices of the majority. Teachers should understand how culture differences in race, ethnics, and gender are associated with influence and how uneven practices of schools can marginalize and segregate groups.

PROBLEM STATEMENT

A critical incident such as Hurricane Katrina could be devastating to an institution such as a school or classroom. In a news release immediately following Hurricane Katrina, Mississippi State Superintendent Hank Bounds (2005) confirmed that the education community was a damaged system. He reported that many schools were totally destroyed or inoperable for months. Displaced school children from the southern part of Mississippi and parts of Louisiana were relocating throughout the United States. Many of the children and their families were relocating to other parts of Mississippi because their homes or places of employment were totally destroyed or heavily

damaged. In the North Central School District, 760 displaced students from Hurricane Katrina had enrolled in school. These children would be accepted without previous documents such as cumulative records or shot records because many records were destroyed by the storm. Following a critical incident such as Hurricane Katrina, it is not known how prepared teachers were in meeting the needs of all the students in the classroom. For example, teachers might have been overwhelmed after being disrupted for 8 days, and upon returning to school with additional students with unfamiliar needs. Therefore, the problem addressed by this study was that there was little known about the needs of teachers as they incorporate into their classrooms students who have experienced a critical incident such as Hurricane Katrina.

PURPOSE STATEMENT

The purpose of this single case study was to describe the experiences and needs of teachers who received into the classroom one or more students displaced by a critical incident, specifically Hurricane Katrina. This study examined experiences of teachers from the North Central School District in terms of addressing the needs of displaced students following Hurricane Katrina. A quantitative survey was implemented to determine teachers' perception of meeting the needs of displaced students following Hurricane Katrina. An event such as a major disaster could disrupt the teaching process and it is important to gain a wider perspective of teachers who have experienced returning to the classroom after a critical incident. Therefore, a quantitative survey was used in this study. The quantitative survey addressed the following research question: What differences are there in teacher self-perception of their efficiency in addressing needs of displaced students following a critical incident based on grade level taught, years of experience, and education level?

INSTRUMENTATION

The instrument was titled "Teacher Efficacy Following a Critical Incident." This survey consisted of 10 questions that assessed the perceptions of teachers on how efficient they felt they were in meeting the needs of displaced students following Hurricane Katrina. This instrument was adapted from a "Teacher Self-Efficacy" scale. The "Teacher Self-Efficacy" scale was written by Ralph Schwarzer, Gerdamarie Schmitz, and Gary Dayner (1999). The researcher found the survey on Ralph's Schwarzer's website and sent him an email requesting permission to use the survey to design a new instrument. A reply was sent to the researcher granting permission for her to use any survey listed on his website. In several studies conducted by Schwarzer (1999) a Cronbach's alpha tested reliability of 10 Teacher Efficacy Scales in three samples that yielded, $\alpha = .67$, $\alpha = .76$ and $\alpha = .65$. Therefore, the researcher used the Cronbach's alpha to test for reliability of the "Teacher Efficacy Following a Critical Incident." Creswell (2003) stated that a pilot study could be used to test content validity by using results to improve questions on a questionnaire. In this study, content validity was achieved through a pilot and questions revisions were not found to be necessary. To assess content validity, 10 raters were randomly selected from the total population of 354 teachers who were assigned to grades K-5 in the North Central School District and had received at least one displaced student from Hurricane Katrina. None of the raters were participants in the study. The raters were asked to complete a questionnaire to indicate if the survey items were relevant or not relevant. All raters rated all items as relevant.

DATA COLLECTION PROCEDURES

The procedures for conducting the "Teacher Efficacy Following a Critical Incident" survey took place at the North Central School District in Mississippi. Prior to beginning the investigation, the researcher mailed the participants an invitation to an informal meeting describing the study and given consent forms. Forty-three teachers attended the meeting. Following the meeting, the researcher mailed consent forms along with surveys to the 184 teachers who were chosen by random selection. The teachers were instructed to mail the completed surveys back to the researcher using the school mail. The deadline for the returns was set at exactly two weeks later, or the fourth week of the study. One-hundred eight of 184 respondents returned completed surveys. A follow-up procedure was not employed the target rate of 100 respondents was reached and the rate of return was 66%. The timeframe was between April 2007 and May 2007.

DATA ANALYSIS AND INTERPRETATION

For analyzing quantitative data collected from the "Teacher Efficacy Following a Critical Incident" survey, SPSS was used by the researcher. The survey used an independent sample t test to evaluate the differences on the

individual groups used in the study. Green and Salkin (2005) reported that an independent sample *t* test is useful when evaluating differences among groups with two independent variables. This study had three groups with two independent variables in each group. The groups consisted of grade assignments (K-2 vs.3-5), years of teaching experience (less than 5 years vs. 5 or more) and education level (undergraduate vs. graduate). The researcher entered the data into SPSS and analyzed the outcome. A Cronbach's alpha test estimated reliability for the survey instrument. Construct validity of the survey was established by the use of the interviews as a follow up study to explain any discrepancies found in the survey analysis. Content validity of the survey was established by asking 10 teachers to rate the items on the survey. To assess content validity, 10 raters were randomly selected from the total population of 354 teachers who were assigned to grades K-5 in the North Central School District and had received at least one displaced student from Hurricane Katrina. None of the raters were participants in the study. The raters were asked to complete a Raters' response questionnaire to indicate if the survey items were relevant or not relevant. All raters rated all items as relevant. A scale score was created by adding the relevant responses of all 10 items and dividing by 10.

RESULTS

One-hundred eight individuals participated in this study. Fifty (46.3%) were K-2 and 58 (53.7%) taught grades 3-5. Forty-three (39.8%) of the teachers had taught for less five years, while 65 (60.2%) taught for more than five years. Forty-nine (45.4%) individuals were undergraduates and 59 (54.6%) were graduates. A Cronbach's alpha test of reliability was conducted on the ten Teacher Efficacy satisfaction items; the alpha reliability for the ten items is, $\alpha = .85$. To examine hypothesis 1, an independent samples *t* test was conducted on teacher self-perception of their efficiency in addressing the needs of displaced students following a critical incident by grade level taught (K-2 vs. 3-5). Results of the one-sample K-S test and Levene's test of equality of variance revealed that the assumption of homogeneity was violated and values for equal variance not assumed were used. The results are summarized in Table 1, where total satisfaction scores for K-2 ($M = 1.87$, $SD = .36$) were not significantly different than total satisfaction scores for 3-5 ($M = 1.90$, $SD = .52$), $t(101.50) = -.417$, $p = .678$. The null hypothesis of no differences by grade level is accepted. Table 1 represents data collected for hypothesis 1.

Table1. *Comparisons of Grade Assignment*

Independent Samples t test on Total Satisfaction by Grade Assignment

Variable	T	Df	Sig.	M	SD	M	SD
Total Satisfaction	-.417	101.50	.678	1.87	.36	1.90	.52

To examine hypothesis 2, an independent samples *t* test was conducted on teacher self-perception of their efficiency in addressing the needs of displaced students following a critical incident by years of experience (less than 5 years vs. more than 5 years). Results of the one-sample K-S test and Levene's test of equality of variance revealed the assumption of homogeneity of variance was met. The results are summarized in Table 2, where total satisfaction scores for the less than 5 years group ($M = 2.06$, $SD = .50$) were significantly higher than total satisfaction scores for the more than 5 years group ($M = 1.77$, $SD = .38$), $t(106) = 3.41$, $p = .001$. The null hypothesis of no differences by years of experience is rejected.

Table 2. *Comparisons of Years of Experience*

Independent Samples t test on Total Satisfaction by Years of Experience

Variable	T	Df	Sig.	M	SD	M	SD
Total Satisfaction	3.41	106	.001	2.06	.50	1.77	.38

To examine hypothesis 3, an independent samples *t* test was conducted on teacher self-perception of their efficiency in addressing the needs of displaced students following a critical incident by education level

(undergraduate and graduate). Results of the one-sample K-S test and Levene's test of equality of variance revealed the assumption of homogeneity of variance was violated and values for equal variance not assumed were used. The results are summarized in Table 3, where total satisfaction scores for the undergraduate group ($M = 1.93$, $SD = .55$) were not significantly different than total satisfaction scores for the graduate group ($M = 1.85$, $SD = .35$), $t(77.98) = .88$, $p = .382$. The null hypothesis of no differences by education level is accepted.

Table 3. *Comparisons of Educational Level*
Independent Samples t test on Total Satisfaction by Education Level

Variable	<i>T</i>	<i>Df</i>	<i>Sig.</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Total Satisfaction	.88	77.98	.382	1.93	.55	1.85	.35

CONCLUSION

Teacher efficacy was found to play an important role in student erudition. Collier (2005) explained that teacher efficacy was influenced by how teachers perceive themselves as educators. In other words, the teacher's personal beliefs system significantly impacts decision-making and instruction. Furthermore, Collier explained that teachers' perceptions of self-efficacy greatly impacted student learning. Therefore, how teachers perceived themselves as being efficient following Hurricane Katrina was found to be an important topic for investigation.

The population of this study consisted of 354 teachers who taught in grades K-5 in the North Central School District, and had received at least one student displaced from Hurricane Katrina. For the survey, a sample size of 184 teachers was chosen by a random sample method. Surveys were mailed to the 184 teachers. One-hundred and eight individuals responded and participated in this study. Fifty (46.3%) were K-2 and 58 (53.7%) taught grades 3-5. Forty-three (39.8%) of the teachers had taught for less five years, while 65 (60.2%) taught for more than five years. Forty-nine (45.4%) individuals were undergraduates and 59 (54.6%) were graduates. Those teaching grades K-2 ($M = 1.87$, $SD = .36$) had about the same average satisfaction scores as those teaching grades 3-5 ($M = 1.90$, $SD = .52$). The null hypothesis, that no differences by group exist, was failed to reject. Furthermore, undergraduates ($M = 1.93$, $SD = .55$) had about the same average satisfaction scores as graduates ($M = 1.85$, $SD = .35$). The null hypothesis, that no differences by group exist, was failed to reject. However, those teaching with less than 5 years ($M = 2.06$, $SD = .50$) had greater average satisfaction scores as those teaching with more than 5 years ($M = 1.77$, $SD = .38$). The null hypothesis, that no differences by group exist, was rejected. Therefore, participants in this study who had less than five years of teaching experience showed less teach efficacy following Hurricane Katrina than others. It appeared that those who had less than years of teaching experience were more impacted by Hurricane Katrina and needed additional assistance.

Beatly, J., Bingham, D., McGhee, S., O'Brien, K., Skalko, T., & Russoniello, C. (2002) described the school as a social environment that is an important resource for children in terms of developing healthy, emotional individuals following a natural disaster. In the aftermath of a critical incident, social systems are important supportive institutes that provide hope and support to students. These support systems will help the students better accept what has happened and allow them to cope with the outcomes in a positive way. According to Collier (2005), teachers are great resources for positively influencing their students into becoming successful at learning. Ware (2007) found that teachers with higher levels of self-efficacy were ones who were more likely to plan more appropriate activities for all students. Furthermore, Ware revealed that these teachers placed forth-greater effort in locating teaching materials to accommodate different learners. Ware (2007) explained that in the event of an emergency, teachers with higher levels of self-efficacy were more capable of overcoming challenging events and continued at teaching well. In fact, these teachers were found to be more optimistic during challenging events. On the other hand, teachers with low self-efficacy were found to blame outside factors when things did not go as well as desired. This study indicated that teachers with less than five years of teaching experience had reported less teacher efficacy. Since teacher efficacy was found to be directly related to student learning, this study indicated a need for a support system following a critical incident for teachers who had less than 5 years of teaching experiences. Further, this study revealed a need for a pro-active plan to be in place prior to a critical incident that included staff development training. Hurricane Katrina is not the first critical incident to upset the social systems of a school, and it will not be the last.

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PART 1: Teacher Efficacy Following a Critical Incident

The purpose of this voluntary survey is to gather information from teachers involving meeting the needs of displaced students following a disastrous event such as Hurricane Katrina. This information will be used for a doctoral study. Please complete items and return via Pony Mail to:

Ethel Daniel

French Elementary School

Your participation is needed and deeply appreciated!

Directions: Each item below asks you to rate items following Hurricane Katrina. Circle the items on the right that best describes you.

In terms of satisfaction AFTER Hurricane Katrina, I would rate my ability for the elements below	Scale of Satisfaction				
	Very Satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
1. I can teach important subject content to difficult students who have become displaced by a hurricane.	5	4	3	2	1
2. I can sustain a positive relationship with parents of displaced children even when conflicts occur.	5	4	3	2	1
3. I can reach difficult students who have experienced a disaster when I try hard.	5	4	3	2	1
4. I am more capable of addressing the needs of my displaced students as time progresses.	5	4	3	2	1
5. I can maintain composure and teach well even when disrupted by a disastrous event.	5	4	3	2	1
6. I am responsive to the needs of my students even when I am experiencing a bad day.	5	4	3	2	1
7. I can put forth a positive influence on personal and educational growth of all my students.	5	4	3	2	1
8. I can initiate innovative projects with all my students when faced with oppositions.	5	4	3	2	1
9. I can construct creative ways to teach well even when faced with constraints.	5	4	3	2	1
10. I can motivate all my students to participate in innovative projects.	5	4	3	2	1

Part 2: Demographic Survey

Directions: Each item below asks you to describe yourself. Circle the number on the right that best describes you.

What best describes your years of teaching experiences? 2= More than 5 years 1= Less than 5 years				2	1
What best describes your education level? 2= Graduate 1= Undergraduate				2	1
What best describes your grade assignment? 2= 3-5 1= K-2				2	1

Adapted from Schwarzer, R., Schmitz, G. & Dayner, G. (1999). Retrieved June 26, 2006 from http://web.fu-berlin.de/gesund/skalen/Language_Selection/Turkish/Teacher_Self-Efficacy/hauptteil_teacher_self-efficacy.htm.

MANAGING JUSTLY ACROSS CULTURES: THE PROBLEM OF FAIRNESS IN INTERNATIONAL BUSINESS

Rolf D. Dixon

Weber State University

Cam Caldwell

McNeese State University

Apichai Chatchutimakorn

McNeese State University

Kayla Gradney

McNeese State University

Kochakan Rattanametangkul

McNeese State University

ABSTRACT

The research about managing diverse employees in international business literature suggests that organizational leaders will be more effective if they consider and apply management principles that resonate with the unique values of the national culture of the employees that they lead. The research about organizational justice also suggests that employees who perceive that their organizations deal with them fairly are more likely to be highly committed and engaged in achieving organizational goals. We offer ten propositions about the integration of three key dimensions of justice with the characteristics of Hofstede's five factor model of organizational culture. These propositions suggest specific management approaches that organizational leaders can adopt to be more effective in dealing with employees from respective cultures.

INTRODUCTION

In a business world that has become both increasingly complex and globally competitive (Cameron, 2003; Dowling, Festing & Engle, 2009), a growing body of evidence suggests that organizational leaders who treat employees with fairness, integrity, and sensitivity are more likely to find that those employees respond with increased commitment and productivity (Senge, 2006; Pfeffer, 1998). Managing the work force in a global society requires leaders to be responsive to employee well-being, job satisfaction, and employee commitment and to create organizational systems that are welcoming, inclusive, and congruent (Findler, et al, 2007; Cox, 2001). As leaders create and maintain relationships and establish policies to guide employees, the actions of those leaders determine the perceptions of employees about organizational justice (Tyler, et al, 1997).

As Hofstede (1980) noted in his seminal research about national culture, the key values and perspectives that characterize residents of different nations help explain 1) why those people respond in predictable ways, and 2) why it is important for organizational leaders to understand those responses in relating to the residents of each nation. The purpose of this paper is to examine the relationships between organizational justice and the factors that characterize cultural differences. We begin this paper by briefly summarizing the nature of organizational justice and by identifying how justice is perceived. We then explain the framework of Hofstede's five factors (1980) as characteristic of national cultures and also present information about each of these five factors. We offer nine propositions about organizational justice that relate to differences in cultural perspectives. We conclude by identifying the importance of understanding the relationships between organizational justice and national culture and suggest research opportunities of benefit to both scholars and practitioners.

THE NATURE OF ORGANIZATIONAL JUSTICE

Rawls (1971:3) called justice "the first virtue of social institutions," established to protect the rights and freedoms of individuals in society and essential for the creation of a cooperative society. According to Morris (1999), the principle of justice begins with the notion that rewards should be proportional to contributions, but justice is far more complex than simply articulating the distribution of resources (Luo, 2007; Primeaux, et al., 2003).

Cropanzano (2007:34) stated “organizational justice has the potential to create powerful benefits for organizations and employees alike [including] greater trust and commitment, improved job performance, more helpful citizenship behaviors, improved customer satisfaction, and diminished conflict.” People perceive justice through their perception based on their norms and values (Greenberg, 2001). Justice is ultimately a concept (Fortin & Fellenz, 2008) that is evaluated through the subjective lens of each individual (Primeaux, et al, 2003) and is based upon inferences drawn by each person about the elements of the social contract existing between that individual and another party (Nussbaum, 2004; Hosmer, 2007). Scholars frequently note that there are three core dimensions or types of justice: distributive justice, procedural justice, and interactional justice (Luo, 2007; Cropanzano, et al., 2007; Ambrose & Amaud, 2005).

Distributive justice involves how an organization disburses its resources as it achieves desired outcomes and acknowledges that individuals may not always be treated alike (Ambrose & Schminke, 2007). Three widely recognized rules of distributive justice are equality, equity, and need (Fortin & Fellenz, 2008). *Equality* treats each individual the same; *equity* rewards individuals proportional to their contribution to desired outcomes; and *need* distributes resources based on perceived requirements associated with individuals involved (Primeaux, et al., 2003). Resources or rewards in distributive justice are apportioned based upon an implicit or explicit set of rules, and group members traditionally think of themselves as shareholders in a group or community (Cropanzano, et al., 2007:37-38). Greenberg (2001:370) explained that “people across many different cultures agree that distributive justice is important although they define justice differently in practice and can favor one rule (equality, equity, need) over another when allocating rewards”. Distributive justice implicitly consists of a subjective perception regarding the fairness of how resources are assigned, as each party interprets values, priorities, and duties owed through an individual lens (Fortin & Fellenz, 2008).

Procedural justice addresses “the means by which outcomes are allocated” (Cropanzano, et al. 2007:38). The degree to which procedures, policies, and rules are articulated fairly and followed consistently are also critical to obtaining cooperative behavior (Fuller & Hester, 2007; Tyler, 1999). Leventhal and colleagues (1980) observed that a process is perceived as procedurally just if it is consistently applied, free from bias in implementation, factually accurate, relevant to the needs of affected stakeholders, correctable, and consistent with an organization’s ethical norms. Procedural fairness builds organizational trust and increases individual commitment (Lemons & Jones, 2001). Fischer (2006) noted that paying attention to procedural justice issues seems more crucial for managers because “greater perceived justice of organizational procedures was associated with higher satisfaction [and] greater commitment to the organization.” In his seminal research, Blau (1964) noted that perceptions of fairness were based upon elements of the social exchange relationship and were fundamental to the decision to cooperate. Colquitt and colleagues (2001) called procedural justice a rational process which incorporates several context-based determinants. When organizational systems are perceived as procedurally fair, participants may accept distributive justice decisions that are personally unfavorable (Kim & Mauborgne, 2005; Tyler et al., 1997).

Interactional Justice involves the “quality of interpersonal treatment” (Bies & Moag, 1986:44) that people receive in a relationship, and incorporates 1) the degree to which a person is treated with dignity and respect, 2) courtesy shown in interpersonal dealings, and 3) whether a person is provided a personal explanation when treated in a way perceived as unfair (Colquitt et al, 2001; Primeaux, et al., 2003). Reflecting the social exchange perspective (Blau, 1964), people expect fair, honest, courteous, and truthful treatment in their relationships with others (Ladebo et al., 2008). Employees who perceive fair treatments by authorities are more likely to evidence high commitment to the values and goals of the organization (Cohen-Charash & Spector, 2001). Empirical studies have confirmed the independent nature of interactional justice as a moderator of justice perceptions (Scandura, 1999; Bies and Moag, 1986; Clemmer, 1993).

Summarizing findings of the justice literature Caldwell and colleagues (2001) noted that justice incorporated six fundamental assumptions:

- (1) Justice's key components are distributive, procedural, and interactional;
- (2) Just treatment leads to the cooperation of others, including their relinquishing of authority and control to those perceived as just;
- (3) Justice implies a distinct social contract, incorporating an exchange relationship, equality of rights, or a presumed need;
- (4) Perceived ethical duties owed from those in authority are based upon an explicit or implicit duty to behave consistently with roles, responsibilities, and ground rules;
- (5) Those who relinquish authority or control expect that their interests will be considered and balanced with the long-term collective welfare of other stakeholders;
- (6) Justice is contextually sensitive and is merited based upon a composite of internal and external environmental factors.

Each of these six factors confirms the subjective nature of justice as an individualized perception viewed through each person's mediating lens (Primeaux, et al., 2003).

The interaction between distributive, procedural, and interactional justice has been well documented in justice literature. Clemmer (1993: 202) found that procedural and interactional justice "each contributed uniquely to customers' satisfaction." Konovsky and Cropanzano (1991) reported a 0.62 correlation between procedural and interactional justice and a 0.53 correlation between procedural and distributive justice. Masterson et al. (2000) also found that interactional justice directly and positively affected perceptions of the quality of leader-member exchange, and procedural justice affected perceptions of organizational support. Evidence suggests that the three components of justice interact, even when this interaction may vary (Cropanzano, Slaughter, & Bachiochi, 2005).

HOFSTEDE'S FIVE-FACTOR FRAMEWORK FOR DESCRIBING CULTURE

Culture in an international context has been defined as "the collective programming of the mind that distinguishes the members of one group or category of people from another" (Hofstede, 1999:35). Culture incorporates the norms, values, and attitudes that reflect shared meaning and patterned ways in which people interact (Litvin, et al., 2004: 30). Cultural typing is considered to be "relatively static" (MacNab & Worthley, 2000) and a central, enduring, and distinctive part of the identity of groups (Albert & Whetten, 1985). Hofstede and colleagues (1990) provided a well recognized and frequently cited framework for classifying international cultures that identified five dimensions which explain how people respond to their internal and external environments (Ailon, 2008):

- 1) **Individualism versus Collectivism** – This dimension focused on the relationship between individuals. Individualistic societies value individual achievement, and freedom and ties between individuals were comparatively loose. Collectivistic societies value group relationships, and the achievement of goals tends to be focused upon group-oriented achievements rather than upon individual accomplishments.
- 2) **Masculinity versus Femininity** – This dimension focused on the relationship between gender and work roles. Masculine cultures sharply differentiate work roles and values such as achievement and the effective exercise of power. Feminine cultures make little differentiation between roles based upon gender.
- 3) **Uncertainty Avoidance** – This dimension reflects the degree of comfort that people feel in unstructured situations and the efforts that they make to control external factors. Uncertainty avoidance reflects the extent to which cultures socialize their members into tolerating uncertainty and ambiguous situations. Members of cultures with high uncertainty avoidance have a strong need for rules and regulations. These cultures prefer clear and detailed instructions and value job security and stable career patterns. Cultures with low uncertainty avoidance are more willing to take risks and are more comfortable with both change and ambiguity.
- 4) **Power Distance** – This dimension focused on the extent to which people are unequal in physical and intellectual capabilities. High power-distance cultures give emphasis to inequalities in role, power, and wealth. Low power-distance cultures tend to play down the importance of status and roles.
- 5) **Confucian Dynamism** – This dimension emphasizes attitudes toward time, respect for tradition, the protection of face, and the reciprocation of gifts and favors. These values are derived from Confucian teachings. Cultures high in this dimension have a high regard for tradition and accompanying high expectations about the formalities expected in social settings.

Hofstede and colleagues (1990) have noted that the variation within cultural groups is often broader than the variation between groups for these five dimensions, but nonetheless have advocated this five-factor model as a useful framework for understanding differences in the way people see the world and determine their priorities.

ORGANIZATIONAL JUSTICE AND CULTURAL PERSPECTIVES

The perception of justice cannot be considered complete without understanding difference in national culture (Greenburg, 2001). To illustrate, justice is assessed by individuals whereas inferences about justice can be made by either individuals or organizations (Primeaux, et al., 2003; Olffen, 2007). The three dimensions of justice are said to be positively related to trust and the degree of personal commitment that people show toward the organization (Tzafrir, 2006). Organ (1988:64-67) suggested that perceived fairness was an important factor that determined whether an organization's employees would engage in extra role behaviors and opined that justice was often perceived as a moral issue. Chen and colleagues (1998) suggested that the degree to which employees are willing to engage in extra role behavior is dependent upon whether those employees believe that their supervisor has violated

the implicit psychological contract between the organization and the employee. Hosmer (2007) defined the perceived fairness of social contracts as a fundamental ethical principle upon which human relations is established. Othman and colleagues (2005) have also identified the close relationship between employee commitment and perceptions about justice with regard to the employment relationship and the psychological contract. We present ten propositions which clarify the relationship between organizational justice and international cultures.

Olfen (2007) reported that organizational justice, especially procedural and interactional justice, is believed to induce the formation of social exchange relationships in which *perceived* justice is reciprocated with favorable individual attitudes and behaviors. In other words, organizations considered to be fair are attractive to employees and will motivate them to stay committed (Olfen, 2007). According to Thompson (2005:397), “the highest levels of commitment are reported when there are high levels of both interactional and procedural justice.”

A research study by Caldwell, Clapham, and Proctor (2003) found that for MBA students perceptions about procedural and interactional justice in organizations were closely related to perceptions about perceived trustworthiness and affected the willingness of individuals to trust other parties. Kim (2007) found that both organizational structures and the nature of internal communications substantially impacted perceptions about fairness in Korean organizations. Schminke and colleagues (2000) suggested that elements of organizational structure helped contribute to perceptions about procedural fairness. Muller and Lee (2000) noted that the role and quality of communication between the leader and associates substantially *influenced* perceptions of both trust and justice – impacting both perceptions about interpersonal relationships and organizational fairness. Consistent with this summary of the role of interactional and procedural justice, we offer our first two propositions.

P₁: Employees of all cultural backgrounds will respond to a management approach characterized by high levels of interactional and procedural justice with higher levels of employee commitment than employees in organizations characterized by low levels of interactional and procedural justice.

P₂: Employees of all cultural backgrounds will respond to a management approach characterized by high levels of interactional and procedural justice with higher levels of trust than employees in organizations characterized by low levels of interactional and procedural justice.

Principles of justice that are consistent with cultural values are likely to be more acceptable and to be perceived as more just than principles that represent conflicting values (Birnbaum-More & Wong, 1995). Hofstede's (1983) individualism/collectivism element is among the most common dimension used by researchers to understand the differences between American culture and other cultures (Triandis, 1994). In an individualistic society, people tend to emphasize their own goals over those of their clan or group (Ramamoorthy & Carroll, 1998; Ramamoorthy et al., 2005). People in individualistic cultures are more likely to focus on self-interests, whereas in collectivist cultures, individuals belong to groups that look after them in exchange for loyalty (Soares, 2007). Furthermore, in an individualistic society, individual goals may or may not be consistent with in-group goals (Triandis, 1994).

Sullivan and colleagues (2003) found that individualism and collectivism orientations impacted the nature of interpersonal relationships in organizations. Lam and colleagues (2002) suggested that individualism and collectivism impacted both perceptions of fairness and willingness to engage in extra-role behaviors. Yamaguchi (2005) determined that for Japanese workers factors of both interactional and procedural justice affected employee willingness to cooperate and perform extra-role behaviors. Anderson and Patterson (2008) found that persons who had a concern for others, typified by a collectivist orientation, were as concerned about issues of equitable distributive justice and procedural justice as persons with a more self-interested individualist orientation. Consistent with these research studies, we suggest the following proposition.

P₃: In cultures characterized by high levels of interactional justice and procedural justice, the levels of commitment to engage in extra-role behaviors for individualistic cultures will be no greater than organizations which have collectivist cultures.

Uncertainty avoidance measures the extent which people feel threatened by “uncertain or unknown situations” and is mitigated by explicit and clear rules (Hofstede, 1991: 13). As a factor reflecting the comfort level that a culture feels with ambiguity and change, uncertainty avoidance is potentially the most significant cultural dimension in international settings (Litvin, et al., 2004:30-31). Employees from cultures low in uncertainty avoidance tend to be more tolerant of change and are willing to engage in activities that are perceived as unique or different (Hofstede, 1990). Cultures high in uncertainty avoidance tend to resist change, seek predictability, and attempt to exercise more control by creating rules, laws, and institutions (Primeaux, et al., 2003).

Whetten and Cameron (2007:386) suggested that individuals from cultures high in uncertainty avoidance were likely to have a preference for precisely articulated procedural rules to reduce uncertainty and would tend to feel higher levels of trust under circumstances when expectations and ground rules are clearly spelled out. In their explanation of the relationship between transaction costs and cultural differences, Domicone and colleagues (1998) have proposed that spelling out expectations and formalizing agreements in writing would help individuals from

cultures high in uncertainty avoidance to reduce uncertainty and would substitute for trust. In contrast, individuals from countries lower in uncertainty avoidance are more concerned about relationships that are established than about procedural rules (Domicone et al., 1998). Sensitivity to cultural differences is vital in building trust, and creating perceptions about fairness (Michailova & Hutchings, 2006) and attempting to create trust by focusing on the relationship with individuals high in uncertainty avoidance are likely to communicate a mixed message (Covey, 1992). Consistent with the insights offered by this research about uncertainty avoidance, we propose the following.

P₄: Organizations made up of employees from cultures high in uncertainty avoidance will respond to a management approach characterized by high levels of procedural justice with greater levels of trust and cooperative behavior than organizations characterized by low levels of procedural justice.

P₅: Organizations made up of employees from cultures which have low levels of uncertainty avoidance will respond to a management approach characterized by high levels of interactional justice with higher levels of trust than organizations characterized by high levels of uncertainty avoidance.

Chiang and Birtch (2007) have noted that cultural background has a distinct impact on how reward preferences are allocated. In cultures with high levels of masculinity, performance and achievement take precedence over caring for others and quality of life (Robbins 2001:1). Kim and colleagues reported that equity-based reward allocations were culturally influenced and suggested that cultures high in masculinity were also high in their preference for distributive outcomes high in consideration of equity regarding contributions. In contrast, Gilligan (1982) had earlier suggested that the feminine perspective about ethical duties was more relationship based, consistent with the perspectives of interactional justice (Bies & Moag, 1986).

Simola (2003) also noted that feminine perspectives are more likely to be concerned with procedural fairness. Masculine cultures, according to Roxas and Stoneback (2004:150), are associated with assertiveness, acquisition of material things, and lack of concern for others. The 'gender socialization approach' argues that "males and females have distinctive different values and traits due to gender creating different moral orientations and resulting in different decisions and practices" (Roxas & Stoneback 2004:150). Simga-Mugan and colleagues (2005:140) noted that "when facing moral dilemmas, people from Western and masculine cultures utilize ethics of justice while people who are from Eastern and feminine cultures draw upon ethics of care." Based upon this research, we offer two more propositions.

P₆: Organizations from cultures which have high levels of masculinity will respond to a managerial approach characterized by high levels of equity-based distributive justice with higher levels of trust than organizations with low levels of masculinity.

P₇: Organizations from cultures which have high levels of femininity will respond to a managerial approach characterized by equality-based and need-based distributive justice with higher levels of trust than organizations with low levels of femininity.

Cultures high in Confucian values promote loyalty, respect for authority and harmony and place great value on reciprocity, and interdependence in honoring relationships (Chan, 2008). Hofstede and Bond (1988) described Confucian dynamism as also incorporating perseverance, face-saving, and long-term orientation. Within the Chinese culture, Schminke and colleagues (2000) noted that at higher levels of the organization issues associated with the ability to allocate resources related to distributive justice were paramount while at lower levels of the organization employees tended to be more concerned with the opportunity to be flexible provided by procedures which do not constrain them. Begley and colleagues (2006) confirmed the findings of Schminke and colleagues and also noted that Confucianism's focus on role differentiation at different organizational levels impacted attitudes about trust.

Within a Confucian culture interpersonal relationships are established with superiors, not with the organization – suggesting that managerial commitment can be constructed as a form of reciprocity to a specific person rather than the work organization (Tsui, et al., 2004: 140). Piccolo and colleagues (2008:273) confirmed that when relationships between leaders and team members were high quality, perceptions about both distributive and procedural justice were also high and led to increased employee commitment. Lau and colleagues (2008) suggested that perceived trustworthiness in Confucian cultures was influenced by demographic similarity and the quality of the relationship between the parties. Consistent with this research about Confucian dynamism, we offer the following proposition.

P₈: Organizations from cultures which have high levels of Confucian dynamism will respond to a managerial approach characterized by high procedural and distributive justice with higher levels of trust and extra-role behaviors than organizations with low levels of procedural and distributive justice.

Based on Hofstede's (1980) model, individuals and groups high in power distance more readily accept role and interpersonal inequality and its institutionalization as compared to those with a low power-distance culture, who believe that inequality between people should be minimized (Chow, et al., 2001:85). Tyler and colleagues (1997)

suggested that individuals low in power distance were less sensitive to variations in procedural justice because they were more likely to accept role differentiations and acquiesce to the authority of supervisors. Subordinates from low power-distance cultures consider themselves to have equal rights to their superiors and expect to be consulted on decisions that affect them (Chow, et al., 2001:85). Chow and colleagues (2001:88) also noted that “subordinates of a high power distance culture more readily accept decisions and demands made by their superiors.” In contrast, organizations with high power- distance orientations are likely to have role-constrained interactions with their superiors (Lee et al., 2000:688).

Lee and colleagues (2000) identified a correlation between low power-distance and individual perceptions about both procedural and distributive justice for Hong Kong employees. Individuals felt both increased trust in their supervisors and higher perceptions of procedural justice and higher levels of contract fulfillment and distributive justice as well (Lee, et al., 2000:685). In assessing the trustworthiness of leaders, van Knippenberg and colleagues (2007:113) found that individual cultural expectations about leader roles, including power- distance perspectives, moderated perceptions of fairness and justice. Henri (2007) had noted that accounting firms that were more flexible and less role dominant tended to use a greater variety of performance measurement methods to focus firm performance and engender employee support. Based upon this research about high power-distance cultures, we offer the following two propositions.

P₉: Individuals in organizations who have low levels of power distance will respond to a managerial approach characterized by high levels of equity-based distributive justice and high procedural justice with more trust in supervisors than individuals in organizations who have high levels of power distance.

P₁₀: Individuals in organizations who have low levels of power distance will respond to a managerial approach characterized by high levels of managerial flexibility with more personal commitment than individuals in organizations who have low levels of power distance.

Each of these ten propositions provides opportunities for scholars and practitioners to examine [the way that](#) cultural perspectives impact employees view [of](#) managerial and organizational factors that reflect employee perceptions about the implicit social contract that exists between the organization and its people (Hosmer, 2007; Rousseau, 1989 & 1995).

Contributions of Our Paper

We suggest that our paper contributes to the dialogue about organizational justice in international business in the following ways;

- 1) We affirm the importance of organizational justice as a factor impacting employee trust and commitment and identify the three major categories of justice. Perceptions about justice are subjectively determined through the lenses of each individual (Fortin & Fellenz, 2008), and employee perceptions about the fairness of their supervisors and their organizations have a profound impact on the level of commitment which employees choose to make in performing their jobs (Organ, 1988; Senge, 2006). Chiaburu (2008) [page](#) wrote that “when deciding to be [a](#) good organizational citizen or not, employees engage in more complex sensemaking processes, where fairness might be only one of the factors considered.” Managing others with perceived fairness will increase the ability of organizations to improve profitability and create long-term wealth (Whetten & Cameron, 2007).
- 2) We affirm the value of Hofstede’s five-factor framework in describing factors that reflect cultural differences and explain how differences in culture impact employees. Hofstede’s framework is widely regarded as a useful framework for understanding cultural differences and for understanding the values, beliefs, priorities, and needs of employees from countries throughout the world (Bing, 2004). Although Hofstede’s model is by no means a perfect indicator of either individuals or entire cultures, it is nonetheless highly regarded as a valuable framework for assessing individuals and groups of employees (McSweeney, 2002). The academic literature clearly connects the relationship between cultural differences and perceptions about management effectiveness and trust in international business culture (Chow, et al., 2001; Primeaux et al., 2003).
- 3) We examine the relationships between organizational justice and the factors identified by Hofstede’s research about these differences in international culture. As noted by a multitude of scholars (Dowling, et al., 2009; Hosmer, 2007; Cropanzano, et al., 2007; Ambrose & Amaud, 2005), perceptions about justice vary based upon the cultural perceptions and backgrounds of individual employees. Recognizing and responding to the differences in individual and cultural perspectives about justice has profound implications for effectively managing employees (Dowling, et al., 2009).
- 4) We offer ten propositions about organizational justice that relate to differences in cultural perspectives. Citing the scholarly research about the relationships between cultural types and organizational justice, leadership effectiveness, employee commitment, and organizational trustworthiness, we cite dozens of

studies that identify the factors that influence individual and group perceptions about individual and organizational justice. Although these nine propositions provided in this paper may incorporate insights offered by other scholars, we integrate the literature in summarizing the impacts of managerial and organizational behaviors on perceptions about justice.

CONCLUSION

Employees contribute to the achievement of organizational success by performing both assigned in-role behavior and by individual initiative in performing tasks outside of those roles (Katz, 1964). The ability of organizations to create aligned systems that are perceived as fair and just substantially contributes to the level of employees' commitment and the extent which employees perform as highly motivated organizational citizens (Organ, 1988). Justice perceptions are not only assessed on the basis of gender and age (Primeaux, et al., 2003), but are substantially impacted by the subjective lens of national culture (Cohen & Avrahami, 2006).

Cultural gaps have a huge impact on business because corporate cultures and way of doing things are deeply entrenched (Choi, 2007). Wise managers who thoroughly understand the cultural factors which impact perceptions about justice will be able to craft organizational policies and practices which enable them to be responsive to the needs of their employees (Dowling, Festing & Engle, 2009; Hill, 2008). The ability to provide aligned systems, policies, and practices that facilitate the achievement of the organizational mission and that resonate with employee values (Boyatzis & McKee, 2005) is well recognized as a contributor to long-term organizational profitability and strategic competitive advantage (Pfeffer, 1998 & 2007). Building trust by managing justly begins by making the effort to truly understand those served by the organization (Solomon & Flores, 2001; Caldwell et al., 2008).

In the opening lines of his classic text on international culture, Geert Hofstede (1980:1) wisely observed that the survival of mankind will depend to a large extent on its ability to act together to understand how "others' thinking differs from ours." As organizational leaders incorporate insights about justice in dealing with employees in the global marketplace, their understanding of how employees think will impact organizational effectiveness, profitability, and long-term wealth creation.

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DIALOGICAL ENGAGEMENT: A PROCESS MODEL FOR TRANSFORMING HIGHER EDUCATION

Daniel M. Miller

North Carolina A&T State University

ABSTRACT

This paper presents a brief introduction to a model for confronting the adaptive challenges facing four-year post-secondary education. The intent is to provide a framework for research and practice of leadership and organizational transformation in higher education in the face of current turbulent shifts in underlying economic and industrial conditions of higher education. Dialogical engagement is a process model for deep change. It relies on the argument that the phenomena of discourse, interaction, interpretation, re-interpretation and other dialogical engagements form the basis for psychosocial reconstruction (i.e., transformation), whether at tacit levels of ontology and epistemology, or at more explicit and purposeful levels of individual and organizational knowledge systems and behaviors. The fundamental process that allows for reconstructing psychosocial thinking, values, behaviors and emotional attachments is engagement in a cycle of dialogical interaction between extant and novel (i.e., disruptive) frames.

INTRODUCTION

This paper presents a theoretical model for confronting the adaptive challenges facing four-year (or third level) post-secondary education. The intent is to provide a framework for research and practice of leadership and organizational transformation in higher education in the face of current turbulent shifts in underlying economic and industrial conditions of higher education.

Four-year colleges and universities face challenges of maintaining relevance given current social, economic and industrial upheavals. These challenges have always had implications for both the content and delivery of post-secondary education. Historically, higher education has played two central roles that support economic development: 1. research and development and 2. workforce development (training and knowledge transfer). From the early 1800's institutions of higher learning have been critical to developing emerging technologies and industrial schemes. In the United States, higher education provided a means for knowledge and technology transfer that boosted the growth of agriculture and industrial manufacturing. In more recent times, post-secondary institutions have been critical in the development of industrial sectors such as service, information technologies, biotech, advance production systems, etc.

THE TRANSFORMATIONAL IMPERATIVE FOR HIGHER EDUCATION

In the context of our current global economic recession and the inability for current industrial sectors to support economic growth, there is a need to develop new industries that will create new industrial sectors that provide a basis for economic growth. As in the past, post-secondary education needs to take a central role in developing this new world economy. In addition to R&D and workforce development, higher education needs to play a central role in establishing and socializing society using a new paradigm for education, training, and industrial development.

While the historical shifts from one industrial era to another appear different on the surface, the central problem is the same. That is, how do business and industry (including higher education) create conditions that support a paradigm shift that results in innovation and fundamental transformation upon which a new economy can be built?

When the fundamentals of any industry fail to support sustainable growth, there is a period of uncertainty that is caused by not knowing what new industrial models will replace the old. However, in our current political and economic circumstances, there are some clues as to potential areas of focus. In the United States, there is a reasonable amount of consensus that health care, education and renewable/alternate energy are sectors that will be continued areas for growth. The pressures for health care are immediate and will continue to grow as baby boomers age. The need for well-trained teachers for pre-K – higher education is well established and growing. The movement away from carbon-based energy is driven by global economics, global political tension, and global climate change.

In his February 2009 speech to the American Council on Education, Gordon Gee, president of The Ohio State University, made the point clearly, “[w] hile giving deference to our proud history, our challenge today is radical reformation. Change at the margins will not do. The choice, it seems to me, is this: Reinvention or

extinction.” In the same speech, Gordon Gee warns his fellow university presidents that, “[f]or many in our positions, the first instinct in responding to this sudden economic crisis is to hunker down, hide out, take refuge in the fox hole, and wait for the storm to pass.” He calls for more horizontal thinking (Gee, 2009). Thinking that crosses disciplines and existing frameworks for solutions. However, given the entrenched worldview of looking up for leadership and answers, how can such notoriously static institutions make such radical shifts? The shifts are not superficial or technical, but require a dramatic transformation of the culture and artifacts of higher education. He is calling for a sea change in vision, values, policy, work processes and design. Key tools for dealing with, what Heifetz (1994) would call, technical challenges, such as five year strategic plans, and the typical goal and objective setting devices are not in and of themselves sufficient to create transformative change, especially on such a large scale. A model that gets at the core of issues related to transforming the culture and deeply engrained work processes is needed.

Our current crisis, which involves all sectors of industry, requires leaders and constituents adopt a new paradigm; i.e., confront adaptive challenges (Heifetz, 1994). Heifetz provides a distinction between adaptive and technical challenges. Technical challenges assume that, for the more part, existing structures and culture can be modified to provide solutions for increasing the effectiveness of an organization. On the other hand, adaptive challenges are conditions that force and organization to undergo deep and transformative change. This deep change most often requires a fundamental shift in the culture, work processes, and even the goals of organizations. So, instead of making adjustments to existing structures, adaptive challenges require reinvention. While higher education has become aware of its need to transform and reinvent itself, the understanding of how to approach this deep and transformative change has not yet reached a critical mass among leaders and constituents in higher education.

Higher education has the opportunity to play a significant role in the reframing/ reeducation of multiple constituents from multiple sectors of industry and society. Dialogical engagement, as a process-oriented framework, can provide some direction for helping individuals and organizations, not only cope with change processes, but move toward deep-level (i.e., shifts in culture and paradigm) individual and organizational transformation (Quinn & Caza, 2004; Heifetz, 1994; Senge, 1990).

The Power of the Status Quo

A central obstacle to psychosocial transformation (e.g., learning, development, and change) is overcoming the inertia of the status quo. Whether it be patterned ways of thinking, routinized behavior, standard operating procedures, etc., humans, collectively and as individuals, tend to value stability (Sarbin, 1986; Argyris & Schon; 1974; Schon, 1983; Botella & Herrero, 2000; Lewin, 1951). Change, learning, development, growth, or whatever you wish to call “movement away from status quo,” can become a difficult and painful struggle. The comfort of familiarity, certainty, and stability are the contrast opposites of the stress and anxiety that come from uncertainty and ambiguity that accompany deep psychosocial transformation. An intervention of sorts is required to break this psychosocial dependence on comfort.

The immune systems of complex biological organisms can be used as a metaphor for understanding the dynamics of organizational change. For example, in the case of bacterial or viral infections, the human body creates antibodies that attack foreign matter and organisms. The immune response is fundamentally based on equating “foreign” with a “threat.” However, the automatic rejection of foreign matter (i.e., *threat response*) can be harmful to the survival and well-being of the entire organism. For example, in the case of human organ transplants, the immune system tries to attack (reject) the new organ based on its “novelty” to the system, rather than an understanding that the transplanted organ has the potential to improve the overall well-being of the system. In the case of organ transplants, medical science deals with the threat response associated with transplant by suppressing the immune system. In the cases of viral or bacterial infections, the approach is to strengthen the threat response through the enhancement of the immune system’s attack mechanisms via inoculation or drug therapy. The key is to understand whether the newly introduced foreign matter is a threat that needs to be attacked, or a life saving aid that needs to be embraced.

Threat response is deeply embedded into the biology of complex systems. It is also deeply embedded in psychosocial systems. In order to preserve the status quo, individuals and organizations tend engage in a threat response, by attacking or sometimes ignoring the introduction of new people, new ideas, new cultural sensibilities, or shifts in external conditions. When confronted with change, particularly deep transformation, psychosocial systems need interventions that, in concept, mirror a medical intervention. Dialogical engagement is a tool for intervention. Dialogical engagement is an effort to mitigate the fear and threat responses to novelty in order to support psychosocial transformation.

DIALOGICAL ENGAGEMENT: A VEHICLE FOR ADAPTIVE LEADERSHIP AND TRANSFORMATION

Dialogical engagement is a process model for deep change. It relies on the argument that the phenomena of discourses, interaction, interpretation, re-interpretation and other dialogical engagements form the basis for psychosocial reconstruction (i.e., transformation), whether at tacit levels of ontology and epistemology, or at more explicit and purposeful levels of individual and organizational knowledge systems and behaviors. The fundamental process that allows for reconstructing psychosocial thinking, values, behaviors and emotional attachments is *engagement* in a cycle of dialogical interaction between extant status quo and novel (i.e., disruptive) frames (Miller, 2007; McCauley et. al, 2006).

Dialogical engagement is about establishing interactive contexts wherein change can occur. Interaction provides opportunities for reducing fear and perceived threat. When people build ongoing relationships with others, the unknown is replaced with familiarity. The same holds true of novel ideas. So an emphasis on increasing opportunities for engaging people and ideas allows for the reduction of the perception of novelty and “foreignness.” Therefore, repetitions are crucial to creating familiarity.

Continual discourses that include novel ideas help to challenge existing psychosocial patterns. This dialogical engagement is a developmental approach that requires continual reinforcement if real transformation is to take root. It involves creating spaces in work life and in culture that invites, protects, and revisits active discourses and contributions of novel inputs into existing psychosocial frameworks of vision, values, policy, work processes and design. The intended outcome of dialogical engagement processes is the transformation culture sensibilities that undergird the nature of deep-rooted transformation (Skerlavaj, Stemberger, Skrinjar, & Dimovski, 2007).

Revised Cultural Sensibilities

There is a particular set of cultural sensibilities that is incumbent for allowing leadership and innovation to thrive in adaptive organizations. A general culture of openness forms the basis for these cultural sensibilities (Hirschhorn, 1997). A culture of openness includes features such as: mutual/shared values and interest, authentic communication, trust (Tschannen-Moran, 2001), reciprocity, advocacy, loyalty, commitment, empowerment and capacity building/support (Miller & Hoy, 2001).

Constituents need to be included in the development of this new sensibility. Without being encultured into this new understanding of their inherit power and authority, people in positions that have historically been without power will balk at exercising leadership for fear of punitive responses for exercising power, authority and leadership outside of the old-school chains of command. It is truly a time for learning in higher education. If institutions of higher education intend to remain relevant and become adaptive, faculty, staff, administrators and students alike will need to engage in dialogical processes in order to generate truly transformational and adaptive systems.

The New Paradigm

The requisite individual and cultural ways of “thinking” and “doing” that lead to effective transformation are far from being implicitly or explicitly manifest in our society. This “new” paradigm involves bringing new understanding, behaviors, and processes that allow for adaption and innovation. The challenge is to divorce our individual and collective thoughts, values, and action frameworks from the industrial revolution and move toward what is known to be effective leadership, cultural, political, and value frameworks that support the spread of entrepreneurship, innovation and adaptive ways of operating. Some sectors of industry have progressed further along this path than others. Higher education, in general, has lagged behind.

At the heart of individual or organizational entrepreneurial behavior is freedom, support, safety and capacity. Freedom, support, safety and capacity provide the soil in which adaptation and innovation sprout. However, too often our orientation toward growth and development is prescriptive and oppressive. So rather than growing people to manifest their potential as critical thinkers and innovators, we often end up reinforcing existing structures of the status quo by overly prescribing, overly specializing, and over controlling the development and growth of individuals and institutions.

The Leadership Imperative

In the context of promoting adaptive, innovative and generative organizations, there is a leadership imperative that needs to be addressed. The traditional and still contemporary view of leadership need to be re-

conceptualized and manifest in ways that, again, are divorced from the legacy of the era of industrial manufacturing. In society, and in academe, we are still embedded in a perspective of leadership as an embodiment of a set of qualities in an individual. We also revert to thinking that leadership is located in a place in organizations (typically at the “top”) that harbors all expertise, direction, and initiative. However, this need not and cannot be the case in adaptive systems.

In a context that fosters generative processes, traditional notions of leadership need to give way to what many scholars and practitioners have known (at least academically) for years. The thrust of currently thinking around leadership is that it is relational, it is multi-dimensional, and that it is conducive to adaptation and innovation when it (leadership) is fostered among all constituents in a given social system. (Drath et. al. 2009; Uhl-Bien, 2006; Rost, 1994). Systems of evaluation of work, job descriptions, and divisional arrangements are all on the table for reinvention. The leadership imperative is to let go of the reins enough to take risk in a highly risk adverse climate. However, letting go will be necessary in order to allow the production of new systems. Crucial to letting go will be creating environments of trust, communication, receptivity and openness that support novelty and risk-taking.

SUMMARY

As a process model for transformation, dialogical engagement places an emphasis on creating contexts for productive interaction between what is exists and what is novel. A balance between safety and risk-taking is key to creating these contexts. Higher education is faced with losing its place as a vehicle for production of new knowledge, workforce development and training. If higher education does not engage in adaptive processes, it will continue to lose its relevance in the emerging industries of post-industrial society. Dialogical engagement offers a framework for creating contexts for adaptation and transformation at both individual and organizational levels. As a process oriented model, it places an emphasis on creating spaces (physical and psychosocial) that allow for disruption of status quo in the domains of vision, values, policy, and work processes. In response to an explanation of dialogical engagement and the impossibility of starting out with a predefined end game for transformation, a high-level university administrator concluded, “instead of setting goals and objectives and then developing processes to reach them, the process becomes the outcome.”

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THE EFFECTIVENESS OF AN AMERICAN HISTORY EDUCATION PROGRAM: TEACHER PRODUCTIVITY AND MIDDLE AND HIGH SCHOOL STUDENT ACHIEVEMENT

Reed Neil Olsen

Missouri State University

Marc Cooper

Missouri State University

La Reva Newcomer

Missouri State University

Cindy Mais

Republic Missouri School District

ABSTRACT

For the past six years, the U.S. Department of Education has attempted to improve American History education in public schools by funding a number of Teaching American History (TAH) programs. The current research presents systematic evidence on the effectiveness of one TAH program with data gathered from a unique controlled study of the effectiveness of the program. The paper finds that public school teachers' participation in the TAH program improves their students' scores on standardized American History exams. More importantly, students taught by participants with more success in the program, as measured by their GPA in TAH courses, perform better on the exam. In fact, participant success in all three types of courses taught in the TAH program, methods, content, and historical methodology, are associated with higher student scores on standardized exams. Success in the TAH program is estimated to increase student exam scores by 3 to 18 percent, with methods courses having the largest estimated impact.

INTRODUCTION

There exists a large body of literature investigating various forms of education production functions, especially with respect to public school education (e.g., Meyer, 1996; Krueger, 1999; Rivkin, et al., 2005). The evidence on the effectiveness of the inputs in producing education is mixed. For example, Hanushek (1986) finds that the impact of a number of these inputs including per pupil spending, teacher experience, and teacher education level are relatively poor predictors of student performance, especially when comparing results across different studies.

Very little of the above cited literature relates directly to American History education. Rather, the education productivity literature tends to utilize student scores on the most commonly given standardized exams including math, science, and reading (e.g., Rivkin, et al., 2005; Goldhaber & Brewer, 1997; Monk, 1994). Moreover, the majority of the education productivity research tends to estimate the impact of generalized inputs (e.g., the existence of teacher turnover, education degrees specific to a given discipline, class size, or financial resources) rather than focusing on testing the efficacy of particular pedagogical or content programs intended to improve teacher quality and student performance.

The U.S. History National Assessment of Educational Progress (NAEP) exam originally given in 1986 and repeated periodically in subsequent years illustrated a national problem with American History education (Lapp et al., 2002; Humphrey, et al., 2005). Due to these results, in the past 20 years, increased attention has been paid to improving American History education, including increasing federal funding since 2001 under Teaching American History (TAH) grants funded by the U.S. Department of Education. What has been lacking, however, has been systematic evidence of effective practices and programs within American History and the TAH program (Humphrey, et al., 2005). The current paper addresses the current lack of systematic evidence on the effectiveness of American History content and pedagogical teacher training for one TAH grant, the American History Educational Enhancement Program (AHEEP).

The current paper addresses the current lack of systematic evidence on the effectiveness of American History content and pedagogical teacher training for one TAH grant, the American History Educational Enhancement Program (AHEEP). Similar to content and pedagogical programs to improve teacher quality and student performance in other disciplines such as economics (Allgood & Walstad, 1999), the AHEEP program tested in the current paper offers public school teachers the opportunity to earn a specialized history masters degree. The

master's degree offers history content courses, historical methodology courses, and teaching methods courses in a part-time, on-line format. One of the advantages of a master's program is that teachers are given positive incentives to participate both directly through the program and indirectly as a method of increasing their regular salaries. A full description of the program is available in the full version of this paper.

STUDY DESIGN

The Teaching American History program described in this paper was offered to two cohorts of participants under a grant from the U.S. Department of Education. The second cohort of participants included systematic gathering of data for statistical analysis from program participants and their middle and high school students. The current paper presents results from the second cohort based on data gathered during the 2005/2006 school year. Individual data was gathered for both a randomly selected control group of American History teachers and AHEEP program participants who taught American History during the school year. The empirical model to be used in the analysis is of the general valued added form (Meyer, 1996) given by equation 1:

$$\text{Post-test}_i = \beta + \phi \text{Pre-test}_i + \alpha \text{SC}_i + \phi \text{TC}_i + \lambda \text{GPA}_i * \text{AHEEP}_i + \eta \text{AHEEP}_i + \varepsilon_i \quad (1)$$

Pre-test refers to the student's score on the assessment exam given prior to the student taking the history course while Post-test refers to the score on the same exam taken at the end of the course. SC is a vector of student characteristics that are expected to affect student achievement. Student characteristics were collected by both a survey and the individual school districts. TC is a vector of teacher characteristics that are expected to affect student achievement. Teacher characteristics were collected by a survey given to all teachers, both those in the AHEEP program and those in the control group. AHEEP measures whether or not a history teacher who has enrolled in the American History Educational Enhancement Program is teaching the student. Equation 1 adds an interaction term between GPA and AHEEP program participation to test whether or not increased success within the program improves AHEEP participants' students' test scores. The empirical work presented below includes estimates of several variations of equation 1 with four different GPA interactions measuring AHEEP participant success within the program including the participant's GPA in: (1) all courses, (2) methods courses, (3) content courses and (4) all other courses.

The instrument used to assess student learning in the pre-test and post-test was constructed by the authors from released questions from the National Assessment of Educational Progress (NAEP). The NAEP is a nationally normed exam and the questions released from the exam have been field tested for use in the exam. For the 2005/2006 school year, 28 questions from the NAEP were used to construct a single exam, which was used for both the pre-test and the post-test. The constructed exam has a mixture of both eighth and twelfth grade questions. Only objective questions were used and the questions were chosen so that difficulty level was varied. The same exam was used for both middle and high school students.

A total of 27 teachers initially enrolled in the AHEEP program. However, in the first year of the study only 7 of these teachers actually taught American History sections. As a result, these 7 teachers are the only ones from whom data can be gathered for the study. An additional 10 teachers not enrolled in the AHEEP program are included in the study as a control group. A total of 2104 students took either the pre-test, the post-test, or both. Of these students approximately half are taught by AHEEP program teachers (49.2 percent) and approximately half are taught by control group teachers (50.8 percent). Although a relatively small number of teachers are included in the study in both the test group and the control group, each group teaches a sufficient number of students that differences between the groups are adequately controlled for in the empirical results.

EMPIRICAL RESULTS

In general, the current proceedings version of the paper simply summarizes the empirical results presented in detail in the full paper. For example, summary statistics show some systematic differences between program participants and their students versus non-program participants and their students. AHEEP teachers are less likely to have a masters degree, have less experience teaching American History, and have less job training. Further, students taught by AHEEP teachers have lower scores on the assessment exam than do students taught by teachers in the control group. Students of AHEEP teachers also tend to be in lower grades, have lower attendance, be on free or reduced price lunches, be minorities, and have an individual education plan (i.e., have some sort of learning disability). To the extent that AHEEP teachers tend to teach students that are more challenging, it is not surprising that these students do worse on both pre and post-tests.

Table 1 highlights the difference in mean scores by comparing the performance on the two exams for both AHEEP participants and teachers in the control group for all students who took the pre-test (1711 students) and the

post-test (1499 students). In Table 1, three definitions are used to identify AHEEP teachers: (1) all seven AHEEP teachers who began the program and took at least some classes, (2) only those AHEEP teachers who remained in the program during the entire year, (3) only those AHEEP teachers who began the program but did not finish, who are identified as “dropouts”. Presumably, the AHEEP dropouts will have learned some material to help improve their teaching but will not have the time commitment of continuing AHEEP teachers. As a result, we expect that dropouts will have better results than will either non-dropouts or teachers in the control group.

Table 1. Differences in Student Mean Scores: AHEEP versus Non AHEEP Participants

Category	Student Means on Pre-test				Student Means on Post-test			
	AHEEP Participants	Non AHEEP Participants	AHEEP Difference		AHEEP Participants	Non AHEEP Participants	AHEEP Difference	
All AHEEP Participants	12.18	12.70	-0.52	*	13.22	13.43	-0.21	
AHEEP Non-Dropouts	12.15	12.66	-0.50	*	13.12	13.48	-0.36	
AHEEP Dropouts	12.34	12.45	-0.11		13.74	13.29	0.46	
Total Students Tested				1711				1499

* Indicates that the difference in means is significant at the 1 percent level.

Note: For any given category, the difference in means between the pre-test and the post-test is statistically significant at the 1 percent level. The number of students tested for AHEEP vs. Non AHEEP participants varies dependent upon how participation is defined.

Table 1 illustrates that students taught by AHEEP teachers have lower average scores on both the pre-test and the post-test than do students taught by teachers in the control group. Although these measures suggest that AHEEP teachers do worse than the control teachers, the result is only statistically significant for the pre-test and for AHEEP teachers who did not drop out of the program. However, the pre-test is given before substantial teaching of American History occurs. As a result, differences in the pre-test average scores must result from differences in the students themselves, as noted above. Moreover, the fact that these differences are no longer statistically significant when comparing average post-test scores is evidence that AHEEP teachers are more effective teachers of American History, once teaching has begun.

Although indicative of success, comparison of mean values of pre and post-test exam scores is insufficient evidence to reliably conclude that a statistically significant difference exists between AHEEP participants and the control group. Rather, variations of equation 1 are estimated using multiple regression analysis. As noted above, the main advantage of this approach is that it tests for differences between AHEEP and non AHEEP teachers while controlling for differences in both teacher and student characteristics. The results from these regressions are summarized in Table 2 (full results available in the full paper.)

Table 2 uses multiple regression results presented in the full paper to estimate the overall impact that both AHEEP participation and success have upon subsequent student performance for both AHEEP participants with on overall A (4.0) average and for those with an overall B (3.0) average. AHEEP participants, as is true for most graduate classes, received either a B or an A. In fact, only one AHEEP participant received a C in the data set and that in only a single class. As a result, Table 2 presents the predicted impact of the AHEEP program, controlling for other relevant variables, for essentially all participants.

Table 2 illustrates a marked difference in subsequent student performance as AHEEP participant performance increases. Essentially, students of AHEEP participants with a B average have no different results on the post-test than do students of control group teachers. However, participants with an A average for a given type of course has a positive and statistically significant impact on their students’ subsequent performance. In fact, the estimated improvement in student scores due to GPA varies from 3 percent to 18 percent higher in Table 2, depending upon the model and type of course. Methods courses in Table 2 are found to have the largest impact while content courses have the smallest impact.

Table 2.

Overall Estimated Impact of AHEEP Participant with a 4.0 GPA upon their Student's Exam Scores.

Regression Results from	Estimated Impact on	Model 5	Model 6	Model 7	Model 8
Table 5	Number Correct	3.151	4.525	1.315	1.803
	Percent Correct	11.25%	16.16%	4.70%	6.44%
Table 6	Number Correct	1.309	1.350	1.136	0.855
	Percent Correct	4.67%	4.82%	4.06%	3.05%

Overall Estimated Impact of AHEEP Participant with a 3.0 GPA upon their Student's Exam Scores.

Regression Results from	Estimated Impact on	Model 5	Model 6	Model 7	Model 8
Table 5	Number Correct	-0.378	-1.710	0.389	-0.132
	Percent Correct	-1.35%	-6.11%	1.39%	-0.47%
Table 6	Number Correct	-0.091	-0.272	0.198	-0.174
	Percent Correct	-0.33%	-0.97%	0.71%	-0.62%

Note: Table numbers refer to Tables in the full paper. The following interactions are included in the models: Model 5: GPA All Courses, Model 6: GPA Methods Courses, Model 7: GPA Content Courses, Model 8: GPA Other Courses.

The empirical results not only provide strong evidence of the effectiveness of the current master's program but illustrates that success in the program is a crucial predictor of the effectiveness of the program. Of course, that increased success the AHEEP program translates into their subsequent success as an effective teacher is consistent with the literature cited above on teacher quality (e.g., Goldhaber & Brewer, 1997; Rivkin, et al., 2005; Allgood & Walstad, 1999). It is important to note that results for the AHEEP program may not translate into all TAH programs. Especially problematic according to these results, would be the expected results from programs that do not encourage success by challenging participants to improve their content knowledge, historical methodology, and improve their skills as teachers.

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INTEGRATING CYBER SECURITY INTO HIGHER EDUCATION CURRICULA

William V. Maconachy
Capitol College

Michael G. Gibbs
Capitol College

ABSTRACT

Our nation is paying increased attention to the issues of cyber security protection and the need for specialists to defend and protect our nation's critical information infrastructure. As government and industrial information management leaders turn their eyes to that needed cadre, they find that the well is nearly dry. This void of cyber protection specialists extends beyond the technologists, deeply into the very heart of technical leadership. Just as when the first piercing sounds of Sputnik came across our radios in the 1950's informing us that the space race began, Americans once again turn to the academic community to assist in addressing a critical national need. This time the need is to produce cyber security specialists in an era of cyber warfare. An example of cyber warfare, as noted by the British Broadcasting Corporation, occurred in 2007 when Russia attacked Estonia's websites – a case of direct cyber warfare. While some progress has been made on the national level much more remains to be done. This paper will discuss the pros and cons of several approaches to teaching cyber security across the curriculum.

INTRODUCTION

Evidence that the new presidential administration is paying attention to the fragility of our cyber infrastructure comes from recent Congressional testimony by Dennis C. Blair, Director of National Intelligence in February 2009. In his testimony, Director Blair outlined the global security threats our nation currently faces. In a news release following the testimony, the Director's office stated:

The hearing also marked the first occasion where the Director, the leader of the nation's Intelligence Community, was the sole witness providing comprehensive analysis from all 16 intelligence agencies. In his opening statement, Director Blair addressed several emerging areas of concern:

1) The global economic crisis and its destabilizing impact on allies and adversaries – including the likely decreased ability of our allies to meet their defense and humanitarian obligations; 2) The domestic and international impact of global climate change; 3) Access to secure and clean global energy resources and management of food and water supplies, especially in light of a projected population increase of 1 billion by 2025; and 4) Cyber security and threats to the U.S. information infrastructure posed by both state and non-state actors.

In his testimony before a select Senate committee on intelligence, Director Blair (2009) outlined some of the severity and extent of cyber related crime.

Malicious activity on the Internet also is rapidly increasing: spam—unsolicited email that Can contain malicious software—now accounts for 81 percent of all email according to Message Labs (Symantec); the Georgia Tech Information Security Center projects a ten-fold increase in malicious software targeting data in the coming year; and botnets—networks of hijacked computers used to deliver spam or launch distributed denial of service attacks—are expected to compose 15 percent of all online computers in 2009. Ferris Research estimates that the total cost of spam and all of the types of fraud that take advantage of spam's impact is \$42 billion in the United States and \$140 billion worldwide in last year, while McAfee estimates that global companies may have lost over \$1 trillion worth of intellectual property to data theft in 2008.

With this dramatic testimony and emphasis from the White House, America has awakened to the reality and extent of malicious cyber activity in America. With this understanding, both government and industry are realizing

there is an increased need for qualified professionals within the information assurance field. Just as America turned to the academic community to develop highly qualified individuals to address the space race, the country is once again in need of skilled and qualified individuals for information assurance.

CYBER SECURITY AND ACADEMIA

This situation in which we find ourselves leaves us with the question, just how is American higher education responding to this challenge?

Evolving Nature of Cyber Security

As shown in figure 1, the very nature of how Americans conceptualize the process to protect information has been evolving since World War II. The world now knows the results of one nation achieving capability to decipher critical messages of another nation while in a war time conflict. As Smith pointed out, “the work they did to unravel the intimate workings of the Enigma cipher is estimated to have cut two years off the length of the war in Europe” (Smith, 2007, p. 3). The efforts to prevent breaking our codes are referred to as Communications Security (COMSEC). Thus, from the 1940’s we moved forward into an era of greater technological revolution knowing the technology was vulnerable. America, indeed the world entered into the Information Age. Alvin Toffler’s book, *The Third Wave*, (1980), uses a historical perspective to argue that the transition from an industrial society (the Second Wave) to an information society (the Third Wave) can be best understood by looking back in time to the transition from the agricultural society (the First Wave) to the industrial society. Since then, as indicated by the President’s Information Technology Advisory Committee (2005), many writers and futurists have joined in the study of the transition from the manufacturing-orientation of industrial society to the information- and knowledge-orientation of the Third Wave. As a global community we now find ourselves emerged in the age of computers. Computers became our way of developing, storing and sharing information. Around the computer arose the concept of computer security (COMPUSEC). The U. S. government launched the National Computer Security Center, which produced a series of studies and guides in computer security referred to as *The Rainbow Series*. In this era we discovered there are numerous programs designed to harm your computer. Some of these included malware and programs such as viruses, worms; Trojan horses, and rootkits. As computers systems continue to develop they became increasingly networked and we soon discovered that computers could communicate. This technological evolution led to the concept of Information Security (INFOSEC), which simply combined COMSEC and COMPUSEC. The emphasis of that paradigm was to protect the systems.

Time marched on into the 1990’s. America discovered the inherent vulnerabilities of things such as operating systems. As indicted by the *Operating Systems History* website, computer operating systems have been a source of vulnerability almost since the inception of connected systems. The recognition that system vulnerabilities were multidimensional, America entered into an era of Information Assurance (IA). This was more of a systems view of protecting not just the hardware and software, but recognizing the critical nature of the human dimension of cyber protection. It was an era which stressed the importance of a life cycle approach to systems development. At a *Center for Strategic Decision Research Conference*, Mr. Tim Bloechl, Executive Director, World-Wide Public Safety and National Security for Microsoft, noted that, “My good friend Bob Lentz used to say, ‘We need to bake in security, not brush it on after the fact.’ I think it is very important that we bake in security capabilities in the software development life cycle, and we are very focused now on doing just that in industry” (2007, Workshop).



Fig. 1. Maconachy (2008). FISSEA Keynote Address. Reprinted with permission from the author.

As technology continues to evolve, techniques for cyber attacks also evolve. For the future, Information Assurance is beginning to morph into something called “assured sharing.” This concept emphasizes the very ubiquitous nature of what we call the Internet. Instead of moving data, voice and video across the entire spectrum of the global cyber infrastructure, users will be identified as part of other trusted networks. The beginning of their concept was introduced by Maconachy, W.V., Schou, C.D., Ragsdale, D., and Welch, D. (2002). As shown in figure 3, protecting information and systems is actually a four dimensional challenge. For the first time, in conceptualizing information assurance, the dimension of time and social context are introduced. This dimension sets the framework for establishing trusted cyber relations based upon things such as political context, advances in technology, and even treaties.

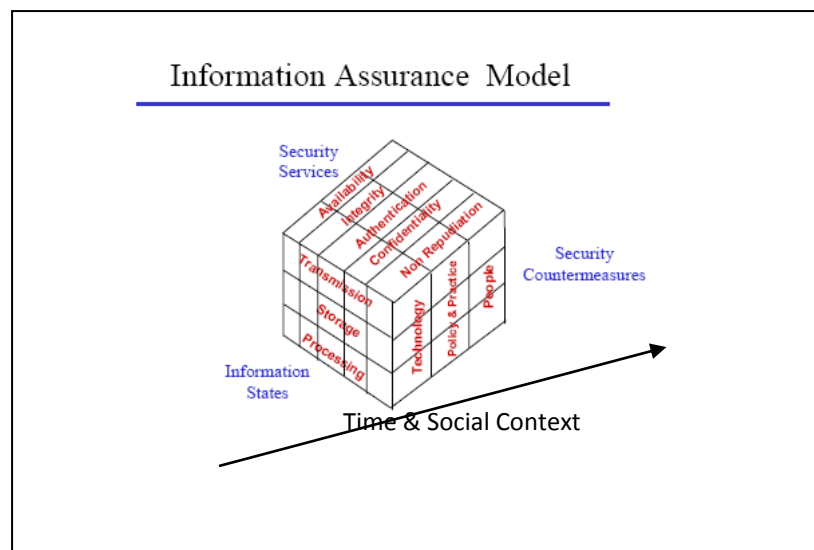


Figure 3. Maconachy, et al. (2002). Reprinted with permission from the author.

DISCUSSION

With the historical context above, we turn to investigating, “so what is academia’s response?” Academia has, for the most part followed the evolution of the field. Early courses in systems protection emphasized cryptography as the solution for protecting systems. Today, thanks in large measure to work by the government, as well as academia, a growing body of knowledge (BOK) is emerging. Students are still taught cryptography as a defense mechanism, but they also study hardware and software protection mechanisms. The issue with a body of knowledge for information assurance professionals resides around the emergence of multiple “definitive” bodies of knowledge. Industry developed BOKs such as ISC2 and GIAC. Government developed bodies such as NIST’s 4011 and the DHS Essential Body of Knowledge (EBK). Academia is responding by studying the merits of each body. One positive step in building curriculum around this plethora of bodies is the work being done at Kennesaw State under the umbrage of the ACM. Katz (2006) work on information assurance curriculum development is representative of the results from than annual meeting.

One Accrediting Body Response

In 2005, the Association of Computing Machinery (ACM) adopted the model found in figure 3 as the model for teaching information assurance within an ACM accredited Information Technology (IT) curriculum. This approach

represents a step forward in promoting the study of information assurance from within the context of preparing for a career field. However, is there sufficient evidence to support the development of a stand-alone information assurance curriculum? If so, what would that curriculum look like? Before one can answer that question, one must first validate three things: (1) existence of a body of knowledge specific to that emergent field, (2) definition of the career field, and (3) the demonstrated need for professionals within that field of study. We believe that all three of these elements now exist:

1. Body of knowledge
 - a. CNSS; Instructions 4011-4016
 - b. DHS: *Essential Body of Knowledge*
 - c. Journals: ACM
 - d. Other: ISC2, CompTia
2. Career field defined
 - a. OPM: Computer Specialist Series – GS-0334
 - b. DoD: DoD M -8570
3. Need
 - a. Job ads for Information Security Specialists are increasing
 - b. Recruitment efforts: More web sites noting vacancies for Information Security specialists

Thus, educators now find themselves at the very cusp for shaping studies specific to an emergent career field. This does not negate the continued need for the study of IA within the context of other curricula. Computer scientists still need to study topics such as secure coding. Electrical engineers still need to study topics such as secure firewall development. Teachers need to study cyber security as it relates to the aspect of child safety. Lawyers need to study cyber security when forming defenses against privacy intrusion and software piracy. These are just four of many examples of why the study of cyber security is important within career field curricula.

Academic Approaches: Is IA sufficiently evolved to be considered a field of study unto itself?

One consolidated source which provides a window into a variety of approaches to teaching information assurance can be found with the National Security Agency (NSA) Centers for Academic Excellence. A review of the 94 school programs shows that these nationally recognized curricula are for the most part embedded within existing curriculum such as engineering and computer science. Very few of these schools define and offer curricula built specific to an information assurance degree. Capitol College, in Laurel, Maryland is one of the few.

Given the existence of multiple bodies of knowledge which describe the field of information assurance, and the fact that within that field sub-specialties have arisen, the authors feel that it is time for academia to recognize information assurance as an emerged self standing field of study. An example of such an evolution can be seen in the development of computer science curricula. Originally considered as simply an extension within the study of mathematics, the complexity of computer science has propelled itself to be recognized as a self-standing academic discipline. This recognition was prompted in large part by the profession itself. Organizations, such as the ACM, defined the body of knowledge, documented the existence of the career field, and provided evidence of hiring from that field. Indeed, computer science has evolved to have it's own set of subspecialties such as software analysis, network specialist, etc. Professional organizations, such as ISC², SANS, ISACA, and the Colloquium for Information Assurance Education (CISSE), should join with academia in pursuing the research and development of whole curricula devoted to educating information assurance professionals.

CONCLUSION

Today, America, indeed the world, needs to come to grips with the current state of cyber insecurity. The first step in doing this is to define and recognize the existence of the information assurance profession. There is ample evidence to indicate that information assurance professionals are already working diligently in areas such as secure coding, fire wall development, malware protection, network security and a host of other knowledge areas specific to the profession. If America, indeed the world, is to begin operating securely in what we now call a net-centric environment, professionals, educated and devoted to securing those networks must begin emerging from academia.

Within the United States, Director Blair took the first steps in recognizing this need by citing cyber security as one of the highest priorities of the new presidential administration. It is our fondest hope that the emerging National Cyber Protection Plan will place great emphasizes on building information assurance professionals.

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OFFICE HOURS-24/7: A SHIFTING PARADIGM

Shelly Hudson Bowden

Auburn University Montgomery

Connie Buskist

Auburn University Montgomery

ABSTRACT

This study addresses the underlying traditional expectation that college professors must be *on campus* in order to complete their obligations to teaching, scholarship, and service. Today, our jobs are accomplished away from campus offices as we work online and travel to schools creating 24/7 work days. We take our laptops with us wherever we travel, so we never really *leave* work. We email, and also use course management systems (WebCT), course assessment systems (LiveText), and course integrity systems (Turnitin.com) as we work from any Internet access. This paper documents our work both inside and outside of our university offices, September 15-22, 2007 a typical work week. Data collected revealed the extended commitments we carried out as well as unexpected ironies. The office hours paradigm has shifted. The participants, their strategies, tools, and how to analyze their 'away from the office work' are being challenged. The archetype that *work* only occurs in our office along with antique tools known as office space and office hours is replaced with 24/7 work days taking place in any number of locations.

INTRODUCTION

"*We need to be more visible on campus,*" our department chair told us at our faculty meeting. Dr. Bill's objective was to make sure the Dean could see that we were working. The underlying traditional belief was that we need to be in our campus offices in order to do so.

Dr. Bill directed her comments to two of the nation's, perhaps world's, self proclaimed immediate email checker/responders, Shelly and Connie, the authors of this manuscript. Early on in our professional relationship, we joked and kidded one another about checking email "a lot." We found our own correspondence involved as short as a five minute turn around time. Thinking it funny at first, we came to realize that our dedication to email and other responsibilities included twenty four-hour, seven day a week commitments to students, colleagues, and our research.

Many of our colleagues complete work in their campus offices presenting distinct work and home lives. They are seen "doing" their jobs each day. Our work is, for the most part, accomplished away from campus offices as we visit schools and work online from home and other locations. We take our laptops with us everywhere we travel (including vacations), so we never really *leave* work (Connie has even worked on her laptop during a family camping trip, and Shelly reviewed the final draft of this manuscript during a round of golf).

Atamian and DeMerville's 1998 article *Office Hours-None: An Email Experiment* was a pivotal case study (for the time) in which the two professors conducted office hours and all communication with students online. In the ten years since Atamian and DeMerville conducted their study, university faculty's use of technology has increased enormously. State and professional standards require that we use technology with students. We, like professors all over the country, are far beyond Atamian and DeMerville's inquiry with online communication and work. Not only do we communicate via email, but also work with course management systems (e.g., WebCT), course assessment systems (e.g., LiveText), and course integrity systems (e.g., Turnitin.com) which makes much of our work possible from any Internet access. Additionally, as we both travel great distances (Shelly 160 miles round trip, Connie 90 miles round trip) to get to the office, the opportunity the Internet provides offers great advantages for us. While we ourselves question our choice in being this connected, we also wonder whether our "out of the office" work is valued. After all, can you actually be working if you are not "visible" on campus? Will the underlying traditional belief of how and where we perform our jobs change as technology transforms the nature of our jobs?

After fielding issues which underlined our quandary, we chose to document our work both inside and outside of our university offices, including work in schools and our work online. At the time, our School of Education's faculty work week included teaching courses (with the expectation of high teaching evaluations), engaging in research (with expectations of publishing), and providing service to our department, school, university and community, as well as keeping a required minimum of 10 office hours per week for the purpose of meeting with students.

Data was collected over seven days, representative of a typical work week, from September 15-22, 2007. We selected this week as a snapshot of the beginning of fall semester, which included our School's faculty retreat held off campus on Friday of that week. Data collected revealed the extended commitments we carried out as well as unexpected ironies stemming from our 24/7 work schedules. Reflections, based on our data, are offered as we examine the changing paradigm of working away from our university office walls.

SHELLY: COMMITTED TO COMMITMENT

"Are you ready to go out for breakfast yet?" The question from my husband interrupted my first email check of the first day of our study, a Saturday at 8:00 am. The work I engage in as a professor over spills from week to weekend, day to night, and is completed primarily away from my campus office. "Away from my office" involves spending hours driving to and from schools, working online responding to emails from students and colleagues, and maintaining and supporting my work through the Internet.

I conceptualized this inquiry during a weekend trip to our beach condo, equipped with a laptop and Internet. Although I knew I spent a great deal of time working outside my office, the field notes and data I collected for this study confirmed the extent of my commitment. During fall semester, I supervised 16 practicum students who I observed twice in their classrooms while managing weekly requirements online, taught ten students enrolled in research courses with all coursework completed online, taught one course during a mini-term (eight weeks), mentored two junior faculty members, and served on committees. On the Saturday morning my husband asked if I was ready to go to breakfast, before leaving, I responded to six students who had sent questions via email the night before. Our week long study was underway.

During the week, my email correspondence with students and other faculty totaled seventy-five in number. Day or night I make myself available for email communication. As an example, after completing six of my ten office hours and then teaching my 8 week course from 5-10:00, I arrived home after my commute to campus at 12:00 midnight Monday evening and responded to 11 student and faculty emails. As another example, on Tuesday I left home at 6:00 am for my two hour commute plus an additional hour drive to observe four of my practicum students in their classrooms. Before I left, I checked my email and responded to a student email that had been sent to me at 12:05 a.m. the same morning, a common time for students to be online. That evening before going to bed, I answered a student's question concerning course requirements while finding myself appreciating the communication my students have with me (thanks to the Internet) in comparison to my "olden" college days and relationships with my college professors.

During our work week, one day is set aside as a day to conduct research. With Wednesday as my research day, from home I began my day at 9:00 am by corresponding with the 10 students enrolled in research courses. This day, I would find, presented unusual challenges while working at home as our home was being remodeled. I had planned to prepare and submit conference proposals (accepted online), share these conference deadline dates with junior faculty members, and work on the present manuscript. As a part of remodeling, painting my study required that all of the furniture including my computer (with access to the Internet) be removed or covered with plastic. Before turning off my computer and leaving the room, I quickly sent an email to Connie letting her know I would be offline, not knowing for how long. The process left me without Internet for two hours. When the painters finished, I was quick to reclaim my study and had received 13 email messages including one from Connie questioning my old fashioned non-wireless computer. In total on this day and into the night, I spent seven hours working at home.

On campus Thursday, I completed four office hours. I worked on my course website, but spent more time talking with other faculty members about their families. Working in my university office is never as productive (with people coming and going) as it is in the quiet of my home. The topic of technology and its use continued to prevail this day. A discussion with my secretary raised an important issue concerning next semester's course taught online. She asked if I needed a room reserved in the Education Building for my course. We agree one would not be needed.

Thursday's work too was again mainly completed away from my campus office with three school visits to Mills, Hillcrest, and Pinedale Elementary Schools, north and east of the university (45 minutes driving time) and a planned field trip to the Montessori School in downtown Monroe at 5:00 to meet my students enrolled in my eight week course. As an Early Childhood Education teacher, I have found I can lecture about Marie Montessori's philosophy, but seeing it in action provides a much better insight than what I can offer through words and pictures. The field trip to Montessori demonstrated another component of my work completed off campus.

When I returned home that evening, I reviewed my www.turnitin.com webpage to make sure my course exam was up and ready for the 23 methods students enrolled in my eight week course to take online from 5-10:00 pm Friday. Taking the exam online meant it would also be graded online. Although the experience is seen as a

positive one for students (they complete the exams at home), I was again online with time reviewing the exams (at home) the following Saturday.

After our School's retreat on Friday, from home, I reviewed 16 practicum students' assignments detailing the progress of their classroom projects posted on the university's Livetext website. I also spent the evening uploaded pictures onto the Kodak Gallery website (www.kodakgallery.com). The pictures, taken during a lesson I taught in a kindergarten classroom, were a component of our state's requirements. (Faculty who teach methods classes must model "real teaching experiences" every semester.) The photos, taking two hours to review and upload, were then shared with the elementary school's principal and local newspaper for the school's news section.

During the final day of our week long study, my Saturday included responding to student emails (11 in count) and correspondence with Connie about the progress of our study. Downloading and grading 23 exams consumed five hours of my time that afternoon. My husband, in between TV football, walking pass my study, continued to make the connection between my 'home work.' "What are you doing? You sure are busy," he reflected.

And he is right. Off campus and beyond trips to schools, I also bring my work home from my university office. In doing so, I accept the responsibility I have taken on as I complete my 24/7 work week. Colleagues like Connie support my commitment through their work ethics. This is not to say however, I have not encountered struggles in my 24/7 schedule.

On one Friday night last semester, I walked past my home office. At 9:30 p.m. I mumbled quietly to myself, "It's 9:30 on a Friday night. Stop thinking of checking email and go watch the movie with Johnny! Who would need me on a Friday night?" Saturday morning I woke to find an email from a student sent at 10:00 the evening before upset because a grade had not been posted (according to the university registrar) for the research course she had completed with me. Graduation would take place at 10:00 that morning and the university had contacted her Friday night to inform her, that although her family had come from all parts of the United States to watch her march in graduation, she would not be marching unless the grade was cleared. This Saturday I called my secretary, who called my department chair to ok the grade which somehow had not made its way to the registrar that past Monday.

Additionally, although my relationship with Connie involves a 24/7 response dialogue, communicating with other members of my department can be trying. Some do not check email from home, but only during their time on campus. Requiring other faculty to value a 24/7 online work is not an option.

CONNIE: FULL TIME EQUALS ALL THE TIME

"When did being a professor become a part time job?" I remember hearing the Dean lament to Dr. Bill that she had been unable to discuss a situation with faculty members because she could not find "anyone in their offices." At the time, I thought to myself that I often wish I had a "full time" job rather than the "all the time" job I now had as an assistant professor.

Because I teach night classes until 10:00 p.m., I am not in my office from 8-5, Monday through Friday. I hold regularly scheduled office hours, presumably so students know when they can come to my office should the need arise. However, students rarely visit me during these official hours. Like Shelly, the majority of my communication with students takes place via email, seven days a week, day and night. Many of my students are teachers who work full time while the rest are alternative graduate students who also hold full time jobs during the day. Their questions typically arise when completing assignments at night and on weekends requiring answers then, not during "normal" office hours. My students come to expect quick responses to their questions, creating for me a job with a 24/7 commitment.

In the semester during which the present study was conducted, I taught three nights a week (one night was online) plus supervised nine graduate students completing work for two different types of practicum. Normally practicum supervision would require traveling to the schools of each student to do observations. However, a new program I was implementing that semester allowed part of these students to complete their practicum during an on-campus field experience we provided for my pre-service students. This meant less travel for me that particular semester.

During the week of September 15-22, I began and ended each day by checking my email. Throughout the week I answered or sent emails to students concerning questions about assignments, upcoming quizzes, Thursday night's Live Classroom (Horizon Wimba), and practicum requirements. I checked my email for the last time each evening around 10:00 p.m.—at my university office after class or at home on the nights I didn't have class. Several times that week I found late night emails from Shelly as well as from students. If I felt specific emails needed to be answered that night, I responded immediately.

During that particular week, much of my email correspondence centered around an upcoming eight-week lab experience for my preservice teachers. I prepared, organized, and sent work for my secretary and graduate assistant including sending names for name tags, a list of supplies needed, and all the paper work to be distributed to parents of children who would be participating in our lab. Since six of my practicum students would be working with my preservice teachers during the lab experience, I emailed each of them the names of the students with whom they would be working and asked them to be prepared to discuss any questions or suggestions about the lab during our Thursday night online discussion. I confirmed the lab details with my department chair, and we exchanged several emails regarding the upcoming field experience. Additionally, she and I discussed, via email, the approaching National Council for the Accreditation of Teacher Education (NCATE) conference that we would both be attending.

My work that week was completed mainly from home as I evaluated Teacher Work Samples on LiveText, posted grades, Power Points, and other documents to WebCT, and downloaded discussion questions that practicum students submitted for our Live Classroom discussion. I browsed materials on NCATE'S website in preparation for a presentation I gave at our School of Education faculty retreat and also the International Reading Association website (www.reading.org/) in preparation for making changes to our Reading Specialist program. In addition, I spent time preparing for my classes, completed an IRB, and worked on a manuscript. I used my own computer, printer, paper, and other materials, but saved on the cost of the gas for my 90 mile round trip commute on the days I did not go to my campus office.

I fulfilled my office hour requirements Monday and Tuesday from 12:00 p.m. to 5:00 p.m., but received no calls or visits from students. My office hours time was spent working online as I made preparations for my night classes.

On Thursday night, I met in a Live Classroom discussion with six of my practicum students—each of whom was sitting in her own home. One student, an independent educational consultant, was often out of the state when we met on line each week. The flexibility of meeting online was perfect for all of us. Most of these students travel some distance to attend classes at our metropolitan campus, so meeting on line them saves them time and money.

As our School of Education's Friday meeting began, panic set in when Shelly and I found out that our meeting place did not have wireless service! That meant the entire day, at least from 8:00-5:00 including travel time, would be without Internet for us. The email response from Shelly that night confirmed my prediction- we both checked email immediately upon arriving home. It isn't easy being an email junkie.

ISSUES AND QUESTIONS REMAIN

As we selected our study's seven days to collect data, we could not have foreseen what would actually take place during that week. On Tuesday as Shelly prepared to leave campus, Dr. Bill stopped her to give her news that challenged our inquiry beyond our expectations. Shelly quickly found Connie in her office (in which she was conducting office hours) to deliver the news that the Dean would be announcing at Friday's retreat that we would no longer have a set amount of required office hours. To say that we were surprised by this radical move away from what had been a major requirement and focus, particularly right in the middle of our study concerning the same topic, would be an understatement. We continued our study, but certainly with different questions just as all qualitative inquiry is driven—on roads less traveled and rarely expected.

The Dean did, in fact, make the announcement at Friday's meeting. The new policy: only that we must have enough hours to take care of our students, that the hours must be posted on our door at the beginning of each semester, and we must be in our office during those posted times. Although the policy changed, we continued to wonder if our time spent off campus, whether in schools or in our home offices, would actually be accepted and valued. Would the fact that we are not as "visible" as some of our colleagues make our contributions less noticeable? Even as we worked on the final drafts of this manuscript, a semester after the policy change, we still found our commitments to our work and students questioned in light of our choice to work away from our university offices.

In reflection, we realize that working in a technological age can create other issues. During our study we questioned whether work with the Internet contributes to detachment and isolation. As an example, there have been many times when Shelly, sitting in her university office, received a question via email from our department chair, who is sitting in her office two doors away. There have also been times that we, not knowing both of us were in our campus offices (which are actually two floors apart), continue to communicate via email. We remain surprised to find ourselves on campus on the same days and times, and so get a good laugh when we realize we could actually be talking face to face.

We also cope with the issue of never “leaving work.” We find that being able to check and respond to email late at night, on weekends, vacations, and holidays, makes it hard to “just say no” to work that would normally be confined to Monday through Friday 8:00 to 5:00. A quick check of email can lead to hours of follow up work. Furthermore, the inclusion of technology in one’s classes takes a huge time commitment. While the use of platforms such as WebCT can be great tools for course management and communication, they take a lot of time to learn, set up, and maintain.

We question, too, if it is wise to be this available to our students. Would students solve problems more independently if they had to make a trip to the office to see us rather than just sending a quick email and expecting to get rapid response?

As mentioned, requiring other faculty to value technology and the idea of 24/7 office hours is not expected. While the transition for us has been as easy one (so easy we were unaware of it or the time we took to complete it) for us, other university faculty continue to struggle with the changing paradigm. Many still feel that you can only be productive when you are seen working in your office. Others purposely avoid taking their work life home, even coming to the office on weekends in an attempt to keep that distinction between home life and work life. We have found that not all professors embrace the use of technology in their classrooms, so their work lives really are confined to the brick and mortar campus. Connie’s students shared the struggle with one professor who continues to choose not to post grades online, but instead posts them (in the old traditional manor) on his office door (with coded student identification numbers). Yet with the rapid advancements in technology change is inevitable, and our students are not only demanding we move forward, they are leading the way.

Janesick (1994) values how the “empirical materials will be informed and be interacted with the paradigm in question (p. 216).” She continues asking “Who or what will be studied? What strategies of inquiry will be used? What methods or research tools will be used for collecting and analyzing empirical materials?” The office hours paradigm has shifted. The participants, their strategies, tools, and how to analyze their ‘away from the office work’ are being challenged. The archetype that *work* only occurs in our university office along with antique tools known as office space and office hours is replaced with 24/7 work days that take place in any number of locations. Technology provides multiple pathways to meeting the needs of our students, being engaged in scholarship, and providing service. As universities continue to increase their expectations that faculty use technology, and as we and our students become more and more entrenched in its use, we feel strongly that it is time to acknowledge and value not only the time spent working away from a university’s four walls, but also the commitment necessary to do it successfully.

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CAN UNIVERSITIES AFFORD TO IMPROVE STUDENT PERSISTENCE?

Jalynn G. Roberts

The University of Southern Mississippi

Ronald A. Styron, Jr.

The University of Southern Mississippi

ABSTRACT

The purpose of this study was to investigate students' perceptions of services, interactions, and experiences in a College of Education and Psychology at a research-intensive university located in the southern region of the United States, and how these factors impact student retention. Data were collected from students through a questionnaire during the Spring 2008 semester relative to their perceptions of various university experiences and services. These constructs included academic advising, social connectedness, involvement and engagement, faculty approachability, business procedures, learning experiences, and student support services. The results of the study indicated that students who were surveyed and did not return for the Fall 2008 semester or changed majors to another area had statistically significant lower perceptions of social connectedness and satisfaction with faculty approachability than students who did return the same semester.

INTRODUCTION

The typical six-year graduation rate for most public institutions in the United States ranges between 50 – 56% (Berkner, He & Cataldi, 2002; Crosling, Thomas, & Heagney, 2008; Mortenson, 2005). Low retention rates impact the ability of a nation to “compete in a global economy” (Seidman, 2005, p. xi). Because institutions must bear the economic burden connected to premature departures, now more than ever administrators must be cognizant of the reasons why students depart from institutions of higher learning prematurely and what can be done to help students overcome these barriers so they can achieve their academic and career goals.

Student retention has now become a topic of paramount concern because demand for a college education has increased. Also, higher education opportunities are now becoming universally available to the masses, resulting in increased student populations at universities as many students from diverse backgrounds take advantage of these opportunities. Although institutions have responded to the enrollment increases and the retention quandary by implementing programs and services, student retention rates have not improved (Berger & Lyon, 2005; Seidman, 2005).

It is the responsibility of universities to graduate the students who enroll at their institutions, and “each institution must tailor retention programs to fit the specific needs of its students within the context of that particular institutional environment” (Berger & Lyon, 2005, p. 3). It is postulated that retention rates have not improved because there is no ‘silver bullet’ or ‘one size fits all’ solution. Plans to improve student retention must be campus-based as universities attract students unique to their individual cultures. As a result, it is imperative that institutions provide environments and climates that are good fits with their particular student populations (Astin, 1990).

Based on common assumptions that retention efforts should be tailored to each school's student population, the purpose of this study was to investigate students' perceptions of services, interactions, and experiences in a College of Education and Psychology (CoEP) at a research-intensive university located in the southern region of the United States, and how those perceptions impacted student retention (if at all). Through the use of a questionnaire, data were collected from students during the Spring 2008 semester. Then, during the following fall semester, data were obtained from these same students to determine if they were enrolled in courses for the same program of study they reported in the spring. The survey data from the two groups (the students who were still enrolled in the same academic program and those students who were not enrolled or changed academic majors to another college in the university) were compared to see if there were any statistically significant differences for the measured variables.

METHODOLOGY

During the latter half of the Spring 2008 semester, students were asked to complete a survey instrument which quantified data measuring their perceptions of academic advising, social connectedness with other students, involvement/engagement, departmental business procedures, faculty approachability, and learning experiences.

Then, approximately one month into the Fall 2008 semester, enrollment status data on students who completed the questionnaire in Spring 2008 were collected. Scores from both groups (those students who did return and those who did not return or changed majors to another major outside of the university's CoEP) were compared to determine if statistically significant differences existed between the two groups for the six constructs measured by the questionnaire.

Instrumentation

In addition to reviewing relevant literature, the researchers worked with the university's CoEP retention committee to decide which variables to measure in this study and how to design the questionnaire to ensure the survey questions were accurately measuring the variables of interest. This committee consisted of professors from each department within the College, the accreditation officer, and the Associate Dean, and was charged with identifying and implementing strategies to improve student retention.

The instrument consisted of 51 items, 13 of which pertained to demographic and status, and 32 of which pertained to the measurement of attitudes and perceptions of academic advising, social connectedness with other students, on-campus involvement/engagement, university business procedures, faculty approachability, and learning experiences. A 5-point Likert scale ranging from Strongly Agree to Strongly Disagree was utilized. Respondents had to answer at least three items for each of the constructs measured to be included in the analysis. The questionnaire also asked students to indicate which of the university's student support services they had utilized.

A group of forty students, all who were enrolled in a tests and measurements or teacher foundations course in the Teacher Education program in the university's CoEP, participated in a pilot study prior to the commencement of the project to test the reliability of the survey instrument. The data collected from the pilot study were entered into a SPSS data file to calculate the reliability of the survey instrument. The reliability statistics for Cronbach's alpha was .73 for students' perceptions of their social connectedness with other students, .80 for students' perceptions of their on-campus involvement/engagement, .87 for students' perceptions of faculty approachability, .78 for students' perceptions of academic advising, .83 for students' perceptions of university business procedures, and .80 for students' perceptions of their learning experiences. The internal consistency statistic for the entire survey instrument was .932.

Participants

Participants included students who had declared majors in a program of study within the university's CoEP. These students were enrolled in courses that were required for all programs of study in the university's CoEP, which allowed for a large sampling of students from various majors within the college. All of the courses were offered in traditional face-to-face format and met three times a week for fifty minutes or twice a week for seventy-five minutes. Participants were selected for this study through convenience sampling, and students' participation was voluntary.

Respondents ranged in age from 18 to 52 years, with a mean age of 23 years. The majority of the respondents were female, while the two most reported ethnicities were Caucasian and African American. Students represented all levels of academic classifications, but the majority reported themselves as Juniors. Table 1 contains detailed information regarding the Gender, Ethnicity, and Classification of participants.

Participants were sorted into two groups. One group consisted of the 93 students who did not enroll for classes during the Fall 2008 semester or changed academic majors to another area outside of CoEP. The second group consisted of the 172 students who enrolled for classes during the Fall 2008 semester for the same academic major they declared during the Spring 2008 semester. It should also be noted that 27 students surveyed graduated at the conclusion of the Spring 2008 semester and those students were not included in this analysis.

The results indicated that the Learning Experiences construct had the highest overall mean while Social Connectedness had the lowest. The means and standard deviations are reported in Table 2. Frequencies were calculated indicating whether or not a student had used a particular service or resource. The frequencies for these items are presented in Table 3.

Table 1. *Gender, Ethnicity, and Classification*

	<i>n</i>	<i>Percentage</i>
Gender		
Male	70	24.0%
Female	222	76.0%
Ethnicity		
Asian/ Pacific Islander	3	1.0%
Caucasian	182	62.3%
African American	93	31.8%
Native American	1	0.3%
Hispanic/Latino	7	2.4%
Other	6	2.1%
Classification		
Freshman	24	8.2%
Sophomore	54	18.5%
Junior	127	43.5%
Senior	82	28.1%
Did not report	5	1.7%

Table 2. *Descriptive Statistics for Returning and Non-Returning Students*

Dependent Variable	Returned	<i>n</i>	Mean	SD
Academic Advising	Yes	172	3.71	0.82
	No	93	3.60	0.79
Social Connectedness	Yes	172	3.60	0.75
	No	93	3.39	0.82
Involvement/Engagement	Yes	172	3.55	0.79
	No	93	3.70	0.72
Business Procedures	Yes	172	3.75	0.65
	No	93	3.68	0.73
Faculty Approachability	Yes	172	3.86	0.68
	No	93	3.68	0.74
Learning Experiences	Yes	172	4.17	0.57
	No	93	4.10	0.60

Scale: 1 = Strongly Disagree...5 = Strongly Agree

Table 3. *Item Frequencies for Student Support Services*

Item	Yes	No	Percentage Yes
Library Services	282	10	96.6%
Computing Resources	274	18	93.8%
Speaking Center	139	153	47.6%
Writing Center	159	133	54.5%
Math Zone	130	162	44.5%
Student Support Services	176	116	60.3%

Analysis

Multivariate analysis of variance (MANOVA) was used to determine if statistically significant differences existed between any of the dependent variables (Social Connectedness, Involvement/Engagement, Faculty Approachability, Academic Advising, Business Procedures, and Learning Experiences) based on the two groups—

students who returned to school during the Fall 2008 semester and those who did not. During the analysis, Box's and Bartlett's tests indicated no issues regarding the homogeneity of variances for the two groups.

A discriminant function analysis was conducted to confirm the findings of the MANOVA test and predict group membership (those who returned in Fall 2008 semester in the same academic discipline and those who did not return or changed majors to another area outside of the university's CoEP) by how the respondents answered the questions for each construct (Academic Advising, Social Connectedness, Involvement/Engagement, Business Procedures, Faculty Approachability, and Learning Experiences). All assumptions for homogeneity of variances were acceptable.

FINDINGS

The results of the MANOVA indicated that there was a statistically significant difference between the two groups, *Hotelling's Trace* = .07, $F = 3.03$, $p = .007$. Pairwise comparisons revealed that two of the dependent variables were significantly different for the two groups, which were Social Connectedness and Faculty Approachability. Pairwise comparisons are given in Table 4.

Table 4. *Pairwise Comparisons*

Dependent Variable	Returned	Means	Mean Diff.	Sig.
Academic Advising	Yes	3.71	0.11	.312
	No	3.60		
Social Connectedness	Yes	3.60	0.21	.042*
	No	3.39		
Involvement/Engagement	Yes	3.55	-0.15	.140
	No	3.70		
Business Procedures	Yes	3.75	0.07	.396
	No	3.68		
Faculty Approachability	Yes	3.86	0.18	.044*
	No	3.68		
Learning Experiences	Yes	4.17	0.07	.349
	No	4.10		

Note: * indicates a statistically significant difference at the .05 level.

Of the six variables measured, two were statistically significant and four were not. The constructs for which the two groups significantly differed were Social Connectedness, $F(1, 263) = 4.19$, $p = .042$ and Faculty Approachability, $F(1, 263) = 4.10$, $p = .044$. The other constructs of Involvement and Engagement, Academic Advising, Business Procedures, and Learning Experiences failed to show any statistically significant differences between the two groups.

The discriminant function analysis yielded statistically significant results, *Wilk's Lambda* = .934, $\chi^2(6) = 17.682$, $p = .007$. Using these variables as predictors, 58.9% of students were correctly classified as to whether or not they returned to the university during the Fall 2008 semester.

As indicated in the structure matrix, Social Connectedness had the highest loading (.476) and was the best predictor of group membership, while Faculty Approachability had the second highest loading (.471) and was the second best predictor. These two variables had much higher loadings than the other variables, confirming the results of the MANOVA. The rest of the variables had the following loadings: Involvement and Engagement (-.344), Academic Advising (.236), Learning Experiences (.218), and Business Procedures (.198).

DISCUSSION

Based upon the findings of this study, the researchers have developed specific recommendations appropriate for those who are currently involved in student retention projects or plan to be in the near future. Since students who did not persist to the Fall 2008 semester had statistically significant lower perceptions of social connectedness than students who did, students in the university's CoEP should be grouped together into cohorts so they take their classes together as a learning community.

Learning communities may be established in many areas of study to effectively address the learning needs for a wide variety of students while providing both faculty and students with an academic structure that promotes

collaboration. Learning communities also help to develop a strong sense of student identity as they traditionally have smaller enrollment numbers. Grouping students into cohorts should not only be done for students who initially declare majors, but also for students transferring in from other universities (Tinto, 2005).

However, planning and implementing cohort models not only requires an investment of faculty time for collaboration and planning, but may also contribute to substantial budget shortfalls (The National Center for Public Policy and Higher Education, 2008). Financial considerations have become crucial decision-making factors in determining programming as state and federal funding have been progressively decreasing in recent years, especially for institutions of higher learning in the South (Bradley, 2002; Caruthers & Marks, 1988). It is also likely that this trend will only worsen relative to the nation's current economic conditions. During these difficult economic times it might be more financially feasible to schedule the same group of students in one or two courses each semester, called clusters, instead of locking students into traditional cohort models, commonly referred to as blocks. Creating clusters around fewer courses may still facilitate the process of student connection and 'friend-making' while requiring fewer financial resources, as clustering does not typically result in class size reductions as is typical found with block-scheduling formats (Bean, 2005; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005).

CoEP administrators should also explore the use of existing technologies that are readily available for creating and managing student cohorts. Professors often manage cohorts and communities in traditional classroom settings, but they should be more concerned with "how to use technology to leverage resources and group dynamics in new ways to make fundamental changes in every part of the learning process" (Kimball, 2001, p. 38). In other words, faculty can use existing technologies to create learning communities while also providing quality academic and social experiences for their students.

According to Towner and VanHorn (2007), there are many technologies readily available to students and faculty, such as social networking tools such as Facebook and MySpace. Tools such as these are communal necessities for college students today. Moreover, Facebook has become a mainstay for helping students to connect with one another. With Facebook's popularity among college students, "it is a potentially valuable resource for college professors to build a classroom network among their students by tapping into the existing social framework already established by Facebook" (p. 4). Professors' use of Facebook to create cohorts and conduct lessons within online courses is certainly feasible because network infrastructure is already successfully functioning, and most college students are already using this technology on a daily basis.

In some educational settings, professors use online networking tools to obtain ideas and feedback regarding their classes (Humphries, 2005). This is particularly useful for online classes because traditional methods for gathering this type of data is impossible. These networking tools can also be used by professors to create student groups, which helps to foster the student learning communities as previously discussed in this study. When professors are able to effectively create cohorts using these existing technologies, it helps to "stimulate and nurture the complex network of interpersonal relationships and interactions that are part of an effective communications and decision-making process" in the world of virtual learning environments (Kimball, 2001, p.38).

Students who did not persist to the Fall 2008 semester also had statistically significant lower perceptions of faculty/staff approachability than those students who did persist. As a result, the university's CoEP should improve efforts to promote student-faculty contact. For example, CoEP could designate days where faculty eat free at campus dining facilities when accompanied by a student and pay for food and materials when faculty hold class meetings (Kuh et al., 2005). Practices such as this would not place any financial burdens upon faculty or students and in the case of lunch meetings, would invert the normal power relationship between professors and students since the professor has to be invited by the student. These types of initiatives would also help increase student interaction with faculty members. Other ideas to stimulate faculty-student interactions, as suggested by Kuh et al., include situating spaces for students near faculty offices and implementing programs where a small number of students (usually between two and five) are assigned to a professor who helps those students become acclimated with campus culture. When initiatives such as these are consistently employed, a culture where student and faculty interaction (both inside and outside the classroom) will become commonplace. More importantly, effective faculty-student interaction will help establish an environment where students feel that faculty members truly care about them as individuals, which will facilitate the attainment of academic success.

Adelman (1999), along with Pascarella and Terenzini (2005) reported that students in their studies who regularly utilized support services had statistically significant higher persistence results than students who do not use such services. In this study, over 90% of students indicated they had utilized the university's library and computing resources, but only approximately half of the respondents indicated they used CoEP support services and associated resources, such as the speaking and writing centers, the Math Zone (math tutoring) and the student support center. While there were no conclusive data regarding student support services from this study, Ardaio, Bender and Roberts (2005) found it important to monitor the utilization of student support services and resources because of the

connection between their usage and persistence. Additionally, Jones (2001) suggested constant collaborative activities between professors and student support services/centers, such as the incorporation of support services or other supportive resources into the class curriculum, class visits to support centers, or simply encouraging students to take advantage of support services and resources, all of which promote student involvement and subsequent connectivity.

LIMITATIONS

This study was conducted at only one college within a university, so results may not be generalizable to the broader university populations. A second limitation found was that students who did not return for Fall 2008 semester were considered a dropout although they may have merely 'stopped out' for a while and may return at a future date to conclude their studies. Also, the findings of this study could have been found confusing to the reader as students who changed academic majors to another area were considered retained at the university level, but not at the college (CoEP) level.

RECOMMENDATIONS FOR FUTURE RESEARCH

Recommendations for future research include follow-up studies with students who did not enroll for classes during the Fall 2008 semester and/or students who changed majors to another college within the university. Additional studies which expand retention factors beyond the seven included in this research and those that broaden the scope of this study beyond traditional, face-to-face classes are recommended.

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EFFECT OF THE 6+1 TRAIT WRITING MODEL ON STUDENT WRITING ACHIEVEMENT

Nancy K. DeJarnette
Limestone College

ABSTRACT

The focus of this study was to determine the difference between teaching the 6+1 Trait Writing Model to fifth graders and the traditional writing workshop method of teaching writing on overall student writing achievement according to the data supplied by a writing rubric. The study involved 8 classes of fifth graders in 2 different schools. One school provided instruction according to the 6+1 Trait Writing Model, and the other school provided instruction using the traditional writing workshop method of teaching writing. It was hypothesized that students receiving instruction using the 6+1 Trait Writing Model would exhibit greater gains in writing achievement and quality according to the data supplied by a writing rubric. Significant differences were found in two out of four component areas. Results indicated that the type of method used to teach writing is not as significant as providing structured instruction as well as time for student writing.

INTRODUCTION

Inconsistencies in instructional methods for teaching writing abound in elementary schools across the United States (Graham, MacArthur, & Fitzgerald, 2007). When elementary school schedules get filled with too many subjects, usually writing is the first content area to suffer from benign neglect. Finding quality writing instruction and time committed for writing instruction and practice are rare in elementary schools. Elementary schools often do not have a designated writing curriculum or a specific method mandated by the district. There can be inconsistencies within schools and even from teacher to teacher in the selection and implementation of writing instructional methods. Both veteran and beginning elementary teachers can feel inadequate when deciding how to teach writing to their students. In 2008, as a result of the No Child Left Behind Act (NCLB), most states have adopted demanding writing standards for grades K-12 (Graham et al.). Teachers are now required to teach writing but rarely are given instruction on how to do so effectively. The goal of this study was to look at specific ways in which to improve the overall quality of writing instruction for students.

This study focused on two specific instructional writing methods for fifth grade students. Both methods required process writing involving prewriting, drafting, editing, revision, and publishing. The 6+1 Traits Writing Model provided direct instruction on the craft of writing, or specific traits, the writing workshop method did not address. The goal of this study was to determine if teaching the individual traits would improve overall writing achievement.

Background

Effective writing instruction involves more than a teacher asking students to take out a sheet of paper and write a story about a topic. Writing instruction has taken on new meaning in education over the past two decades or so. Before the 1990's, writing instruction meant something totally different than it does in 2009. Writing instruction previously referred to a child's personal handwriting skills or ability to copy information from a chalkboard. Since the emphasis of writing instruction has changed, many veteran and novice teachers do not have adequate skills to teach the craft of writing. School districts do not usually purchase a formal writing curriculum which leaves the choice of how to teach writing to each individual school or each teacher in the school. This weakness in instruction can harm schools' academic ratings now that writing is included in standardized testing in every state.

There are numerous instructional methods available and teachers may approach the same method in different ways, creating inconsistencies in the methodology for writing instruction in American elementary schools. This study researched two previously-tested writing instructional methods to see which method yielded greater student writing quality and achievement.

The 6+1 Trait Writing Model is a method of teaching writing and assessing students' writing using the distinct vocabulary of a professional writer. The traditional writing workshop method of instruction focuses on sentence and paragraph structure, conventions, and organization, emphasizing a beginning, middle, and an end. The 6+1 Trait Writing Model adds emphasis on additional writing skills such as ideas, voice, word choice, sentence fluency, and presentation. The traits introduce new writing vocabulary to students that will help give them a vision for what "good writing" looks and sounds like. This writing model has been shown to help students add depth and style to their writing that would not normally happen alone.

Statement of the Problem

What is the difference between the 6+1 Trait Writing Model and the traditional writing workshop method of teaching writing on fifth grade student overall writing achievement as measured by the use of a rubric?

Statement of the Hypothesis

There will be significantly higher achievement in four component areas (as determined by the rubric utilized for this study) of the treatment group, following the 6+1 trait writing model, as compared to the control group, following the traditional writing workshop model.

Professional Significance

The significance of this study emphasized the importance of instructional methods for teaching elementary writing. For many children writing does not come naturally and can be quite difficult. The 6+1 Trait Writing Model provides direct instruction in the different crafts of writing. These crafts, or traits, can be taught and emphasized to greatly improve the quality of students' writing. This experimental method also closely relates writing to reading. Examples from children's literature were used to introduce and teach each of the individual writing traits. Using children's literature provides a model for students and gives them ideas for their own writing. As students study the 6+1 traits in their reading and writing, the traits become part of their vocabularies which give them the capability to apply the traits to both reading and writing. Jarmer, Kozol, Nelson, and Salsberry (2000) discovered that familiarity and emphasis on the traits raise student achievement scores on writing standardized assessment measures. This study yielded some useful methodological findings about how the instruction of writing should be addressed in schools. The 6+1 Trait Writing Model has not been widely used in elementary schools in the Eastern United States; however the results of this study may bring attention to this writing method.

REVIEW OF THE LITERATURE

Writing Development From Past to Present

Writing in the elementary classroom consisted of handwriting and grammar instruction before the 1980's. Teachers often linked writing instruction to grammar instruction in the 1960's. During the 60's and early 70's several studies were conducted on grammar instruction as a way of teaching writing which resulted in conflicting outcomes. Finally Hillocks (1986) concluded in his study that indeed teaching grammar did not have measurable positive effects on student writing performance.

Writing instruction came under attack in the mid 1970's by educators. The situation was defined as a writing crisis among this country's youth (Giroux, 1978). This writing crisis prompted a revision of the ideas of classroom writing and the best way to teach writing to children. Around this time members of Congress recognized the need for improvements and funded writing instruction in an amendment to the Elementary and Secondary Education Act which named writing as a content area. Applebee (1981) described a trend in educational research that began to focus on writing as a process rather than an end product. After the publication of Donald Graves' writing: *Teachers and Children at Work* (1983); writing instruction began to take on new meaning in the eyes of educators. Writing became more of a process rather than a task or product. Graves introduced the five step process approach known as topic selection, drafting, revising, editing, and publishing. He suggested allowing children to write as *real writers* do. Graves theorized that children want to write, and it was up to the teachers to channel and nurture that innate desire. As a result of Graves' work, the writing workshop philosophy began appearing in elementary schools.

Henk, Marinak, Moore, and Mallette (2003) reported that the No Child Left Behind Act of 2001 brought nationwide attention to the evaluation and assessment of writing as a separate construct for American children. This Act placed new demands on American teachers to ensure that all students become successful readers and writers.

In September of 2003, national attention was brought to writing after the publication of *The Neglected "R": The Need for a Writing Revolution*. This report was published by the National Commission on Writing in America's Schools and Colleges and created the *Writing Challenge* for the nation. This report unveiled a concern that "the level of writing in the United States is not what it should be" (p. 7). Several recommendations were made to improve writing in American schools such as increasing time for writing and applying new technologies when assessing student writing.

The 6 + 1 Trait Writing Model

Nearly twenty years ago, the Northwest Regional Educational Laboratories [NWREL] (2002) launched an effort to improve writing in the elementary classroom. The researchers identified six traits of good writing. They knew that the writing programs in the American classrooms were not effective. The goal was to develop a writing program that went beyond grammar and mechanics and holistic grading. NWREL explains that they “compared reams of student work and discussed the qualities or traits that all ‘good’ writing samples shared. Six traits emerged as the cornerstones of quality writing: ideas, organization, voice, word choice, sentence fluency, and conventions. Later, presentation was added to the list” (para.3).

Considering the 6+1 Trait Writing Model’s growing popularity, it is surprising that there has not been more research done on the method to ensure its effectiveness. Arter, Spandel, Culham, and Pollard (1994) conducted a study very similar to the one proposed by this researcher. They tested the 6 Trait Writing Model against traditional methods in six fifth grade classrooms. The teachers in the treatment group received a one day training session on implementing the 6 traits into their writing lessons as well as received instructional materials. Teachers in the control group did not receive any instruction or materials. These teachers provided a process approach to writing for their students and the researchers monitored their classrooms during the study. The study consisted of a pretest, instruction over six months, and a posttest. In this study, a 6+1 Trait Writing Model rubric was used to score student papers. These researchers concluded that students in the treatment group (6 Trait Method) received significant gains in only one out of six areas, the ideas trait. Two other areas approached significance. However, Jarmer et al. (2000) reported in their study at Jennie Wilson Elementary School, that after 3 years of implementation of the 6 Trait Writing Method in all the grades, student standardized test scores increased each consecutive year.

Spandel (2005) wrote in *Creating Writers Through 6-Trait Writing Assessment and Instruction* that not only is the 6+1 Trait Writing Model effective in raising student test scores, but also, more importantly, the model creates “strong and confident writers in any context for any purpose” (p.11). This method of instruction assists students in becoming life-long readers and writers. She, too, emphasized the importance of demonstrating the traits of writing in real literature. Students learn to discover clues about the writer’s craft in books and then apply it to their own writing. In order for the 6+1 Trait Writing Model to truly be effective in the classroom, teachers need to be trained on the content and use it daily in their classroom instruction.

Graham, et al. (2007) reported research indicated that students’ writing does not improve simply through having the desire or the time to write as Hillock asserted in 1986, but does improve through strategic instruction. He wrote “The rationale behind explicit strategy instruction is that it purposely gives students the opportunity to learn to do independently what experts do when completing a task” (pg. 36). The 6+1 Trait Method provides this strategic instruction in the different crafts, or traits, of writing. The specific strategies and traits are introduced during group minilessons through literature and instruction and then reinforced during individual conferencing. These researchers also wrote that students need a language to talk about their writing. The 6+1 Trait Writing Method is an approach that provides students with a specific composing vocabulary that real writers use.

Higgins, Miller, and Wegmann (2006) affirmed that the 6+1 Traits fit effectively into the writing process and make students’ writing more focused and purposeful. The Traits method integrates assessment with the writing curriculum and students use the rubric as a tool for revision. Teachers provide instruction on the 6+1 Traits during minilessons that assist students in the revision process.

Cunningham and Allington (1999) asserted that students are more successful in a literacy-rich classroom where authentic reading and writing activities take place. They explained that authentic reading and writing activities involve reading and writing about real things. The 6+1 Trait Writing Method is characteristic of a literacy-rich environment due to the fact that many examples of children’s literature are used as models, and children are given the opportunity to write as real writers do.

THE STUDY

Methodology

This study used a quasi-experimental design with cluster sampling. The task of the experimental writing instructional method was assigned randomly between two different, but similar, schools. Four fifth grade classes in each of two schools were used for the study. The instrument used to evaluate student progress in writing was a rubric. The rubric for this study was taken from the South Carolina Palmetto Achievement Challenge Test (PACT) which is a standards-based accountability measurement of student writing achievement (South Carolina Department of Education, 2006). All students in the study were given a writing pretest that was evaluated by three raters. The

raters were trained by the researcher on the use of the rubric for evaluation with anchor papers. The anchor papers chosen for training represented each of the rating levels on the rubric. A pretest consisting of a narrative writing prompt was given to all students first. Four fifth grade classes in one school were then instructed according to the 6+1 Trait Writing Model using a writing unit provided by the researcher for a total of 22 lessons. Four classes in the second school were instructed according to the traditional writing workshop method using a writing unit provided by the researcher for a total of 22 lessons. A posttest writing prompt consisting of a narrative writing prompt was given at the end of the study and was evaluated by the same three raters. These raters used a blind review process when evaluating students' writing. The researcher looked for differences in means between student gains from pretest to posttest between the two different method groups using an analysis of covariance (ANCOVA).

Procedures

The researcher was granted permission by the district Superintendent to conduct the study in the two schools that were chosen. The two schools were chosen for this study because they were similar in area, size, student demographics, and proximity according to the *Annual School Report Card* produced by the South Carolina Department of Education (2006). Each school had four classes of fifth grade students, averaging 20 students in each class. A coin was flipped to determine which school would be the control group and teach the traditional approach to writing workshop and which school would teach the manipulated study or the 6+1 Trait Writing Method. The two methodologies were separated into different school buildings to help maintain the reliability of the study by preventing teachers from discussing the content of the instruction. The researcher wrote lesson plans for two different units of study involving 22 lessons for 6 weeks of instruction. Each group of teachers received instruction from the researcher before the study began. Students were identified by number rather than name. This coding helped maintain validity when the papers were scored by the raters. Both groups began with a pretest and ended with a posttest writing assignment using a writing prompt. The pretest topic and posttest topic were different.

Statistical Procedures and Results

An analysis of covariance (ANCOVA) test of significance for a quasi-experimental design was used to show a difference of means between the two research groups in each of the four component areas. This test was chosen because a difference in pretest scores existed between the two schools. The 6+1 Trait group (treatment group) scored higher on the pretest than the writer's workshop group (control group).

The ANCOVA test accounted for the differences in pretest scores that existed between the two groups. The main effect for content development was found to be significantly greater gains for the 6+1 Trait method $F(1,128) = 8.877, p = .003$. Results also indicated that the 6+1 Trait method was significant over the traditional method for the conventions component $F(1,128) = 7.828, p = .006$. A strong relationship did exist in these two component areas between the method used and the posttest scores when pretest scores were adjusted. The voice/word choice component area was not found to be significant for the treatment method $F(1,128) = 3.474, p = .065$. The organization component area was not found to be significant for the treatment method used $F(1,128) = 2.473, p = .118$. All tests were conducted using $\alpha = .05$. Based on these findings, the hypothesis could not be supported.

CONCLUSIONS

The 6+1 method yielded greater gains in two component areas, content development and conventions. The traditional writing workshop method yielded greater gains in two other component areas, organization and voice/word choice. Since the gains are evenly split, the hypothesis cannot be confirmed. However, two out of the four component areas for this study did indicate a difference in instructional method in favor of the 6+1 Trait Writing Model.

Although the hypothesis could not be confirmed in this study, several implications can be made. Providing time for writing, implementing quality instruction which includes literature, and using a scoring rubric during instruction all help to increase student writing achievement. The fact that each of these things were provided for both groups may have contributed to the inconclusive findings of this study. Both groups experienced similar gains in writing achievement.

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**KEMET ACADEMY: A UNIVERSITY MODEL FOR ADDRESSING THE WHOLENESS OF LEARNING
IN A RURAL CONTEXT****Dannielle Joy Davis***University of Texas at Arlington***Denise Davis-Maye***Auburn University***Chippewa Thomas***Auburn University***Dorienna M. Alfred***University of Missouri at Columbia***Kimberly King-Jupiter***Lewis University***Cheryl Seals***Auburn University***L. Octavia Tripp***Auburn University***Garnetta C. Lovett***Auburn University***ABSTRACT**

This work introduces a model of university outreach in rural communities which promotes increasing post-secondary options to rural dwelling African American youth. KEMET (Knowledge and Excellence in Mathematics, Equilibrium, and Technology) Academy is a comprehensive academic enrichment program targeting African American students enrolled in under-resourced schools and communities across Alabama's rural Black Belt region. The group comprised 48 intermediate level students in four counties. Drawing upon professors representing three land grant institutions, KEMET faculty engaged KEMET Scholars in activities designed to enhance skills in reading comprehension and application, mathematics, science, computing, decision-making, as well as health and wellness during both a two-week summer program and tri-monthly "Saturday Academies." Facilitators of the program found it effective in meeting its overall objectives of enhancing the academic experiences of rural youth.

INTRODUCTION

Scholarship and practice initiatives over the past 30 years have focused upon factors associated with children at-risk of becoming teen parents, drug abusers, entering anti-social groups, becoming physically aggressive or emotionally unstable, and other forms of delinquency. These are important factors, but represent only a small portion of the story, rendering remaining issues ignored.

To a great extent, the discussion and research specifically on at-risk African American youth have been restricted to social problems or "problem" youth. Yet other African American children have coexisted in the same contexts, often displaying high levels of competence and cognitive productivity. As a result of the lack of investigations on "healthy" and resilient African American youth, little knowledge has been developed related to motivation; personality norms; psychological, cognitive, identity, and moral development; attitude formation; and relationships with parents, siblings and significant others. There is limited research available about these youth, who despite their economic circumstances, experience success as exhibited by feelings of hope and worth, development

of resilience and competence, as well as the maintenance of positive emotional health (Crain & Dunn, 2007; Donnelly, Eburne & Kittleson, 2001; Gopaul-Mcnicol & Thomas-Presswood, 1998; Phinney, 1990; Smith, 2002).

Knowledge and Excellence in Mathematics, Equilibrium, and Technology (KEMET) Academy's programmatic goal is to target African American students enrolled in under-resourced Black Belt region Alabaman schools. The students in the Black Belt region reside in the poorest counties of the United States, with declining populations that are primarily agricultural with low-density settlement, high unemployment, poor access to education and medical care, substandard housing, and high rates of crime (Gibbs, 2003; Zekeri & Habtemariam, 2006). The program seeks to improve the academic achievement and overall success of participants and offer opportunities for learning and personal growth to young residents of the Black Belt. Programmatic sub-goals include: 1) to increase the academic achievement levels and graduation rates of children attending schools in under-resourced communities; 2) to increase the number of children from Alabama's under-resourced schools who pursue post-secondary education or training; 3) to increase the number of under-represented minorities pursuing careers perceived as non-traditional; and 4) to increase the likelihood that these students will return to their home communities and contribute to the communities' sustainability and growth. Additionally, and most relevant to this work, this pilot evaluation yields data relative to identifying factors promoting higher levels of self-efficacy, achievement, and hope among rural dwellers, while informing policies and programs dedicated to increasing opportunities for members of the featured population.

The authors present KEMET Academy as an intervention for rural youth and a competency model based upon the program. Outcomes of the program yielded the development of the KEMET Competencies Associated with Success for Rural Youth (CASRY), a model which may be applied to other university outreach efforts serving similar populations. These competencies included general literacy, computational skills, analytical skills, computer literacy, communication skills, self-evaluation, cultural literacy, goal development, values clarification and identity, expectations, having two or more non-parent invested adults, global citizenship, and physical and emotional health.

METHODS

The initial participant group was comprised of 48 students entering the sixth and seventh grades. Participants were recruited from four rural counties in the Black Belt region of Alabama. Letters and telephone calls of introduction were made to superintendents, school principals, and guidance counselors. Support was solicited from area community leaders. After approval was secured from the county superintendents, school principals were instructed to select 15 students from the identified school with 5 having C/D grade averages, 5 holding B/C averages, and 5 earning A/B averages. Students with diagnosed severe learning disabilities or conduct disorders were excluded from participating. The resulting group comprised 28 sixth graders and 20 seventh graders. The second year of the KEMET Academy Summer Program experienced some attrition, with 22 seventh graders, and 12 eighth graders. One of the participants had a diagnosed learning disability and physical development challenge, two were diagnosed with Juvenile Diabetes, and one was diagnosed with Kidney Disease. The parents or guardians of each child participated in an orientation meeting held at the school and completed an informed consent form along with their children.

INTERVENTION

This intervention pilot targeted the academic skill development of KEMET Academy participants in the following areas: reading comprehension and literacy; mathematics; science; and computing. The curriculum units had a thematic connection with rural Alabama, and more specifically, West and Central Alabama. During a two week summer break, KEMET Scholars attended rigorous classes and seminars for six hours daily, Monday through Friday. The classes were held on the campus of a public, land grant university in Alabama. The Scholars also participated in quarterly Saturday Academies which focused on one of the target areas and included at least one hour of recreational activity. Because the targeted rural communities are reflective of statistics suggesting that certain populations experience disproportionate cases of obesity and juvenile diabetes, the program integrates components focusing on increasing self-efficacy, self-awareness, and wellness. The intervention's academic components were chosen based on a review of the students' academic records and standardized aptitude test scores. The academic courses included science, computing, reading and literacy entitled, *Myself in Literature*, Visual Arts, and Mathematics. These were supported by the physical health and fitness class, *Healthy Hearts*, as well as an emotional and mental health component, *Learning for Life*.

KEMET COMPETENCIES ASSOCIATED WITH SUCCESS FOR RURAL YOUTH

Scholars continue to find how African American rural students achieve lower average test scores, are less likely to pursue post-secondary education, earn lower wages, inherit less, and transition into higher social strata at lower rates. Over 10 years ago, Phinney and colleagues (1990) identified several factors that promote enhanced competencies in youth who live in under-resourced environments or who are at-risk. Positive identity development, greater self-awareness, cultural connectedness, and self-value served as contributors to overall achievement and success of adolescents (Phinney et al, 1990; Seaborn-Thompson and Peebles-Wilkins, 1992; and Bowman and Howard, 1985).

The research team adapted their experiences in facilitating the aforementioned courses to create the KEMET Competencies Associated with Success for Rural Youth (CASRY). They include General Literacy, which involves the ability to read, comprehend, and apply what one has read. The second competency, Computational Skills, involves being able to manipulate numbers, figures, measurements and apply basic mathematic principles. Analytical Skills identified as the third competency includes being able to examine, categorize, and integrate information before and/or while making decisions or negotiating circumstances. The fourth competence, Computer Literacy, entails having the capacity to utilize computing and other technological advances to manage tasks, challenges, and enhance creativity. Communication Skills, the fifth competency, involves the ability to share thoughts clearly and accurately, including being able to question adults or other people in authority respectfully. Being able to skillfully manage differences with others in a way that results in a positive outcome for all parties concerned is a beneficial skill to possess in social, academic, or employment settings. Lack of this skill contributes to the challenges many youth in this population identify. The sixth competency, Self-Evaluation, is the ability to reflect on one's behavior, contributions, and behavioral strengths and challenges, which can result in implementation of new behaviors, skills, functioning, and navigation of challenging environments. The seventh competency, Cultural Literacy, involves being aware of other cultures, practices, and value systems, as well as respecting differences and acknowledging parallels within and between groups. Young people from environments such as the Scholars often live and learn in monolithic environments with little opportunity for exposure to other cultures and groups. Goal Development, the eighth competency, involves having the capacity to: 1) develop viable short-term and long-term goals; 2) identify the steps to reach them; 3) predict possible barriers; and 4) prepare strategies to avoid or overcome those barriers should they present themselves. Values Clarification and Identity, the ninth competency, ensures that young people are aware of issues and values such as working hard, saving money, and respecting others. In order for the youth to set realistic goals within the boundaries established by their families, communities, and society, it is important that there is some guidance provided regarding the specific expectations from these entities. The tenth competency of Expectations may be interpreted by a parent or other significant adult. This is supported by the eleventh competency of having two or more non-parent invested adults. The concept of investment suggests that adults have a deeper level of concern and intently recognize the interconnection between success in their lives and the lives of the young people to whom they are committed. The twelfth competency is Global Citizenship. Merging of cultures is not only occurring within the boundaries of the United States, but across continental boundaries. If children are unable to interact with and understand cultures that are different than theirs, their futures will be restricted. The Scholars live in predominantly low-income, racially monolithic, rural communities and attend schools with few economic or human resources. In many of the high schools of these communities, a large majority of the students never take a foreign language course. In at least one of the counties represented, a Spanish course is offered via distance learning – not considered one the most effective methods of language instruction. The thirteenth and final competency is Physical and Emotional Health, as participants are members of communities which are overrepresented among those diagnosed with Breast, Colon and Lung Cancer, Diabetes, Asthma, and HIV/AIDS.

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MANAGING THE POST-RETIREMENT EMPLOYEE: A CALL FOR TRAINING IN CONTINGENCY MODELS

Margaret Anne Cleek

California State University, Sacramento

ABSTRACT

Currently we face the worst recession in history. Many will have to find re-employment post-retirement and have no chance of employment at their past career level, re-entering the work force at entry level positions. This creates a situation where a young manager will manage an older worker with little in common. It also creates a situation where traditional motivators such as advancement and vesting in retirement plans are not relevant. Cohort differences, differences in the career cycle, lack of understanding of the older employee, and negative stereotypes of older workers may lead to dysfunctional outcomes for both the older worker and the organization. Thus it is proposed that specific training in situational leadership and an understanding of the particular needs and concerns of the older employee is necessary for young managers in order to increase organizational efficiency and the quality of work and life for the older employee.

INTRODUCTION

The success of organizations today and in the future will depend on management's ability to meet the new demands created by two important changes in the environment. First, the economy is showing a strong shift to service-based industry. Second, the retirement nest-eggs of large numbers of individuals in retirement have been decreased substantially by stock losses in 401k plans and loss of home equity. A USA Today article in late 2008 reporting percentage loss in 401Ks, indicated that losses of 50% or more were common place. The article went on to discuss the growing number of workers postponing or coming out of retirement (Block, 2007). Testimony from Peter Orszag, director of the Congressional Budget Office (CBO) shocked the nation when he reported in early 2008 that there had been 2 trillion in retirement losses in the previous five quarters. This loss of retirement assets, coupled with high-inflation and extended life expectancy, means many individuals are seeking post-retirement employment. A search of the internet provides many sites offering advice and resources for the post-retirement individual planning a return to the workforce. An AARP study quoted on retirementplanning.com said that while many AARP members state they need to stay in the workforce because of the damage inflicted on their portfolios, 84 percent stated that they would work even if they were financially set for life. Why work? AARP states, "They work not only for money but also for intangible benefits, such as enjoyment and a sense of purpose. For many (particularly baby boomers) juggling work and personal responsibilities is a pervasive feature of their lives." The site went on to say that other research indicates that between 65 to 80 percent of retirees plan to return to the workforce at some time after retirement. For some this may be economic necessity but for others it is a desire for the social contact and satisfaction they experienced in the workplace. Many are looking to receive some compensation for what is a hobby or avocation and seek customer service positions in positions where they can speak with and help customers with similar interests. The most obvious would be the avid gardener who seeks a position at the local nursery, the person who enjoys children being a daycare provider, or the do-it-yourselfer working at a big box hardware store.

DEMOGRAPHIC CHANGES

The "graying of America" is a well-documented phenomenon. The average age of the population of the United States has been steadily increasing, and this trend is projected to continue. As a result, the proportion of young people (under 24 years of age) in the population will continue to decrease, while the proportion of individuals over the age of 55 will continue to increase. The proportional increase in older people will not only create greater demand for services, but may provide a potential pool of labor for the service industries that has only recently begun to be tapped. These trends are projected to continue well into the next twenty five years, indicating that the new task of management will be the recruitment and retention of their workforce in the face of a decreasing entry age labor pool. In response, management must be ready to utilize an increasing pool of older workers. We are currently seeing decreased numbers of young workers available due to demographic trends, and fewer recent immigrant workers due to our current economic crisis. Certainly, increased demand for services combined with a proportional decrease in the number of teenaged and immigrant workers will force management to look beyond its traditional labor force to other sources of labor.

As predicted (Occupational Outlook Handbook, 1986), the vast majority of economic growth in the United States over the last thirty years has occurred in service-based industry. Thus, the demand for traditional service employees has increased accordingly. This scenario creates two problems: how to better retain the best workers once hired, and how to attract the best workers from non-traditional labor pools.

When the "Baby Boomers" were teens, low cost, low-skilled workers were in plentiful supply, and service industry managers did not have to concern themselves with employee satisfaction and career opportunities within the organization. Workers were expected to work for a short period of time and then move on to other opportunities. Management did not have to focus on the problem of engendering commitment to the organization in their employees, and in fact may have viewed turnover as cost-effective, since new employees worked for close to minimum wage. However, the tight economic environment and low margin for error in hiring decisions due to slim profit margins makes it increasingly important to manage "smarter" by holding down labor costs such as turnover, and by encouraging greater productivity without alienating the work force.

KNOWING THE POST-RETIREMENT EMPLOYEE

To help maximize the recruitment and retention of post-retirement workers, management needs to be aware of both special age and generational characteristics of this group. Previous research studies (e.g., Schaie, et al, 1988) made the case that we must separate out aging-related maturational changes from generational differences. Increasingly, there is awareness that many of the differences among older adults are more a product of different historical and cultural experiences that are part of being from different generations than from biologically caused declines. There was considerable empirical evidence that there are differences in personality characteristics (Schaie & Paraham, 1976; Woodruff & Birren, 1973) between generations and that within a generation there is a stability of their personality "signature". Empirically there is support that the current generation of post-retirement adults are more likely to be self assured, independent and score high on dominance. An AARP poll indicates that the current generation of elderly have work attitudes consistent with a high work ethic, and report they would work even if they did not need the income (Brown, 2003). There is also evidence that humanitarian concerns are higher in older generations compared to younger. That is to not to say that all differences between young and old are merely products of generational differences. Earlier reviews of aging data (e.g., Salthouse, 1982) do point to some basic changes in the efficiency of cognitive processing. More recent work also suggests that cognitive processes are plastic, and that even late in life are able to be changed and improved. This research strongly suggests that reintroducing and retraining the post-retirement worker into the work place is a reasonable strategy.

It is suggested that an understanding on the part of management of the needs and values of the older employee can increase the satisfaction levels of these workers. The different motivational concerns of the older employee need to be understood and addressed by the employer, both at the organizational level (for example opportunity for advancement or vesting in a retirement program may be of little concern) and at the level of the individual manager (for example an older worker may initially be intimidated by new technology such as a computerized system and the young trainer may assume that the older worker is incapable of understanding the technology, rather than recognizing that a little reassurance is in order). It is suggested that properly understood, the stronger work ethic of older employees will be a valuable asset to the organization (Doering, Rhodes, and Schuster, 1983).

SUPERVISING THE POST-RETIREMENT WORKER

Managers and trainers should be given specific training on how to better utilize the post-retirement worker. This training must address at least three major points in addition to the actual content of the job-related training. First, the training should address the cultural and generational differences between younger and older workers. Second, it should focus on the life stage of the post-retirement worker and the special set of life demands they face. For example, increasingly, the older worker will be forced to take on caregiving burdens for their older relatives which may make work scheduling more complex. Third, it should address some of the myths and stereotypes of cognitive and functional declines. With evidence that cognitive processes are more plastic, training of the elderly is not impossible, but it does require specific skills to maximize learning such as repetition of material and practice.

It is predicted that the training of managers to effectively address the different needs, concerns, and career orientation of the post-retirement worker will serve to increase the satisfaction levels of the older workers and impact positively on overall organizational effectiveness through increased productivity levels of older workers and reduced turnover costs. The predicted increase in the numbers of employers hiring older workers coupled with the different needs and work orientation of the older employee points to a need for specific education to be provided to employers and individual managers so that they might better utilize their post-retirement employees. This would serve the dual

purpose of increased quality of work life for the older employee and increased utilization of the workforce for greater productivity. The pervasive negative stereotypes concerning the older worker could be dispelled in these sessions. Common myths surrounding post-retirement workers are that they have higher rates of absenteeism (because they are less healthy) or have lower rates of productivity. Older workers' rates of productivity may be affected by the greater risk of chronic illness, and be hampered by work and seniority rules. In general, reviews indicate that adults 60 or over perform as well or better than younger workers (Munnell, Sass, and Soto, 2006; Nelson, 2002). Elderly worker's absenteeism rates are lower (actually elderly are less likely to suffer from acute illnesses) and productivity rates in most occupations are as good or better than younger workers (Riley & Fonner, 1968; Robinson, et al, 1984). Beliefs that older workers are less productive and have high rates of absenteeism could be countered with the research indicating that older employees have lower rates of absenteeism and turnover, and productivity rates equal to their younger counterparts (Doering, Rhodes, and Schuster, 1983). Although the common myths about older workers were empirically demonstrated to be false as long as twenty-five years ago, more recent studies demonstrate that the myths persist (Penner et al., 2002).

There is evidence that the older employee has a long history of being passed over. Heidbreder and Batten (1974) found no age differences in the percentage of unemployed persons seeking job assistance from governmental agencies providing employment services but there is a difference in the services they received. Significantly fewer older workers were tested, counseled or enrolled in training programs, they were less likely to be referred to employers and to be placed in a job. These results were also supported by Pursell and Torrence (1979). Johnson et al. (2006) show that impediments to employment and unsubstantiated beliefs about the older worker still persist.

Urging the hiring of post-retirement employees is not the main objective of this paper however, demographic and economic pressures may result in the increased hiring of older workers even without such urging. There is also concern that the quality of work life for these workers be high, and that the employer understands the unique concerns of these workers so that satisfaction and productivity measures can be optimized. It should be assured that dignity and esteem may be maintained in an older individual who is working in a position which has traditionally been the purview of the entry level young worker or one that is far below their past level of career accomplishment. Employment can lead to empowerment of the older worker and increased levels of esteem and well-being and assure that the bring-them-in-use-them-up mentality that has dominated the service industry positions that these older individuals are predicted to fill, not be applied to older workers. Employers and managers need to have a better understanding of the cohort differences that have shaped the lives of the older generation. Training programs need to account for the different learning curves of the older individual. Trainers need to recognize that intimidation or caution when faced with new technology does not mean that the older worker will not be able to master computerized data entry systems for example, and that the need for close supervision may not be as great for the mature worker as it is for the teenager. Understanding of the special circumstances of these groups can lead to successful outcomes for both the employee and the employer. This is especially noteworthy when one considers the fact that the shifting demographics noted above may pressure employers to hire workers who may have no employment history or who have been out of the workforce for several years. These workers may be lacking in self-confidence or may have had little experience in receiving recognition for their accomplishments. Managers can be trained to specifically recognize and address these special needs.

UTILIZING SITUATIONAL MODELS

Younger managers supervising older employees should be familiar with the current situational approaches to managing employees and will need to be specifically instructed as to how to individualize the approach with the needs of the older worker in mind. Of particular value to the manager directing the older worker would be an understanding of the contingency theories of leadership and how they might be specifically applied to the older employee. The contingency theories of leadership address the issue of how leadership styles interact with situational characteristics to produce employee satisfaction and motivation. Predicting which leadership style will be the most effective with a given employee requires an understanding of how contingency factors influence subordinates' responses to leader behavior. In the case of the older employee the age, experience, and career cycle differences above would be one of the major contingencies to consider. House's reformulated (1996) path-goal theory of leadership and his concept of value based leadership are of value with respect to how leader behavior can affect the motivation and satisfaction of the post-retirement employee.

The Path-goal theory defines four dimensions of leadership behavior. These are:

1. Directiveness: The leader tells subordinates what to do and how to do it, and sets standards of performance.
2. Supportiveness: The leader shows personal concern for subordinates, including their needs and well-being, and is friendly and approachable.

3. Participativeness: The leader consults with subordinates, and considers their suggestions and ideas when making decisions.
4. Achievement orientedness: The leader sets challenging goals and expects high levels of performance.

According to the theory, each style is effective under different circumstances, and research has provided preliminary support for the predicted relationship between job factors, employee characteristics, and effective leadership style (Schriesheim & Schriesheim, 1980). House's 1996 revision of the theory extends the theory and lays out 20 postulates for what type of leader behavior will benefit what subordinates under what circumstances. In general, effective leadership occurs when the leader's behavior contributes to the subordinate's ability to accomplish objectives and/or the subordinate's job satisfaction and commitment. For example, when jobs are unstructured or ambiguous in nature, directive leadership makes a positive contribution to the employees' ability to perform because the directive behavior serves to add needed structure to the situation. Since ambiguity can be very stressful, directive behavior may also reduce the amount of stress experienced by the subordinate. Managers of older workers could be made aware that in early stages of training on sophisticated equipment, directive leadership may be in order for the older employee.

However, path-goal theory points out that in certain situations directive leadership may not only be ineffective, but counterproductive. A leader who insists on engaging in directive supervision when the older employees are performing a job that is simple or routine is not providing any resources to the subordinates, but is instead a source of aggravation. Under these circumstances, directive behavior is redundant and the older worker might perceive it as an imposition of unnecessary control, this might be particularly annoying if the manager is very young and the older worker feels resentment over what they might perceive as a turn-around situation. However, when a simple or routine job is stressful, such as during rush periods, the leader can provide support - which is a valued resource to subordinates under these circumstances. Thus, supportive behavior can also be an effective technique the manager can use to enhance the job satisfaction of older subordinates, thereby reducing the likelihood of turnover occurring as a result of dissatisfaction with the job.

For example, an older employee who has been thoroughly trained to work the front desk of a lodging establishment will not benefit from a supervisor constantly checking-up or giving directions. In fact, under these circumstances the supervisor's directive behavior may actually interfere with the employee's ability to perform the job effectively. Thus, directive behavior can not only be counterproductive to the employee's performance, but can create frustration and aggravation because the supervisor's behavior is negatively impacting on the person's ability to perform the job.

However, the performance and satisfaction of that same front desk clerk is likely to benefit from supportive leadership behavior on the part of his or her manager. By helping out during a rush or offering support after the desk clerk has been abused by a rude customer, the manager is providing a needed resource which will serve to increase the job satisfaction of the employee, as well as decreasing the amount of stress the employee experiences.

Achievement-oriented leadership behavior would work best when the older employee is confident of their ability to perform well and subordinates have some control over both the quantity and quality of performance.

The leadership behavior of participativeness helps to build subordinate satisfaction, especially when tasks are ambiguous and ego-involving for subordinates. However, participation can enhance satisfaction for subordinates working on repetitive tasks provided that they are non-authoritarian personality types. The leadership behavior of participativeness helps to build subordinate satisfaction, especially when tasks are ambiguous and ego-involving for subordinates. With regard to participation, managers would have to ascertain how comfortable older workers are with the concept. Because of the different work climate these people have experienced, the new concept of participative management may require a careful introduction. With a value to the manager directing the older worker would be an understanding of the contingency theories of leadership and how they might be specifically applied to the older employee. The contingency theories of leadership address the issue of how leadership styles interact with situational characteristics to produce employee satisfaction and motivation. Predicting which leadership style will be the most effective with a given employee requires an understanding of how contingency factors influence subordinates' responses to leader behavior. In the case of the older employee the age, experience, and career cycle differences above would be one of the major contingencies to consider. House's reformulated (1996) path-goal theory of leadership and his concept of value based leadership are of value with respect to how leader behavior can affect the motivation and satisfaction of the post-retirement employee.

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Achievement-oriented leadership behavior would work best when the older employee is confident of their ability to perform well, and the job is ambiguous enough that subordinates have some control over both the quantity and quality of performance. In a mechanistic, rule-oriented environment achievement oriented leadership may be difficult to implement, and may require a restructuring of the job in some cases.

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In essence, Path-Goal Theory states that a manager is effective to the extent that he or she makes desired rewards dependent on desired performance and to the extent that his or her behavior facilitates goal accomplishment for the worker. The mechanisms through which this is accomplished are dependent on the situational factors discussed above.

Assuming that employers will soon be seeking ways to attract and retain post-retirement employees, the path-goal theory suggests that certain leader behaviors will be more effective in both motivating and retaining a satisfied workforce. The characteristics and life experience of older employees are one consideration in choosing an effective leadership style. Most operational level jobs are simple and routine enough that large amounts of directive behavior on the part of management is going to be a waste of time and energy and a source of resentment in a population which has been shown to have a high work ethic. Although management should certainly monitor performance and provide feedback, additional directive behavior represents a redundant effort by the manager and can be expected to create frustration and resentment on the part of the older worker. An exception is the initial training period, in which new employees require and appreciate directiveness until the job is well understood. In general, directiveness acts to

compensate for ambiguity in the job, and therefore should be reserved for dealing with unique problems requiring immediate action.

Supportive leadership will be appreciated by subordinates, and may facilitate subordinates' performance by alleviating stress. By reducing the amount of stress experienced by employees, managers can expect to increase their subordinates' performance, job satisfaction, and to reduce turnover. Further, supportiveness may include flexibility in scheduling vacation days and hours, which may be as much appreciated by the post-retirement worker as by the part-time worker who is juggling a school schedule.

Participativeness can help build satisfaction and commitment to the organization. This technique may be particularly effective where wages typically are low and career opportunities limited. Managers can use participation as a means of increasing employee interest in their jobs and the organization. In addition, employees who are allowed to participate in decisions tend to develop an investment in carrying out those decisions, and therefore may implement the decisions more effectively. Caution is in order, however to determine if the older employee wants to participate.

Finally, achievement orientation could be applied to jobs in which employees have some discretion in achieving goals. However, it is important that managers attach rewards to goal achievement in addition to setting high standards of performance.

It must be remembered that the post-retirement worker has a strong work ethic, a long history of juggling multiple and conflicting responsibilities and may in fact be considerably under-employed compared to their pre-retirement career. This suggests that high levels of directiveness, especially in the "looking over one's shoulder" sense, may be particularly redundant and resented. These workers could be expected to respond positively to supportiveness, and might be responsive to participativeness provided that they were ego-involved with their jobs.

CONCLUSION

The above considerations regarding leadership style, drawn from path-goal theory, offer some general guidelines for motivating and retaining older employees. In a society where a shrinking base of educated entry level workers is anticipated, and ever increasing numbers of post-retirement workers will be needing and willing to participate in the work force, consideration of how to educate managers to best utilize these workers is in order.

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THE EXPANDING ROLES OF TEACHERS IN A TECHNOLOGY-BASED LEARNING ENVIRONMENT

Mabel CPO Okojie
Mississippi State University

ABSTRACT

The essence of this paper is to discuss various roles that teachers are expected to play in the course of their teaching career taking into consideration that most classrooms instructions are technology-based. Technology-driven instruction is more complex unlike the traditional classroom which is assumed to be simple. Therefore, teachers' roles have changed from simple to complex. They are expected to keep abreast of information brought about by transformational changes in knowledge production. Teaching in a technology-driven learning environment requires teachers who can engage students in all aspects of pedagogical practices to address changes in a wider society and be familiar with technological support services which may impact directly or indirectly on instruction. To be able to teach effectively in a learning environment that is technology-based, teachers must wear many hats by assuming various roles and responsibilities. These roles may require them to possess the skills to be instructional method specialists, technology integration specialists, instructional technology researchers, instructional change agents, mentors, lifelong learners and specialists in setting the stage for learning.

INTRODUCTION

In a traditional classroom, the role of teachers was perceived from a narrow perspective. Teachers' role was seen primarily as presenting the contents of the syllabi which were listed in the curriculum. The layout of the classrooms was simple and instructional resources were reduced to chalk boards, and textbooks. Information was presented through lecture method and assessment was based exclusively on the textbook activities used for the purpose of assigning grades. Paper and pencil were used to complete students' assessment and evaluation. Instruction was teacher-centered and discipline was reinforced with authoritarian platitude. Teachers relied heavily on the textbooks with little consideration given to learners' needs. Therefore, in a traditional classroom, teaching and learning process seemed to follow an uncomplicated sequence of events, whereby teachers were responsible for dispensing knowledge and students memorized and assimilated the knowledge presented with submissive acquiescence. For educational institutions to succeed they must be in a state of readiness in terms of anticipating and implementing changes forced on them by the economy which is based on technological apparatus.

THE EXPANDING ROLES OF TEACHERS

Teachers' roles need to be examined from a broad perspective to take into consideration the complexities of teaching and learning in technology-driven classrooms. Gumpert (2000) succulently argues that *it is worth noting that leaders of public colleges and universities today are expected to demonstrate some willingness, if not enthusiasm, to consider market forces and demands for relevance, or else risk losing some legitimacy* (p. 73). For teachers to be successful in a society that is fluid and where new knowledge and technology change at a fast rate, they are expected to assume greater roles and responsibilities by addressing various aspects of pedagogy and technology including issues which could impact on the quality of their teaching career.

One of the primary tasks that teachers are hired to perform is to deliver instruction to students. New information derived from research evidence is coming to light demonstrating different approaches through which students can learn effectively at a faster rate than before. The composition of student population is diverse; teachers need to consider various learning styles and needs, cultural backgrounds, languages and any other student unique characteristics. Under these transient circumstances, it is important that teachers acquire the expertise to develop, adapt and select instructional methods as well as evaluate their worth and suitability in relation to the type and nature of instruction being planned. In order to accomplish all these, teachers are expected to perform various functions related to teaching and learning directly or indirectly.

Teachers' Roles as Instructional Method Specialists

Active participation in the learning process should be encouraged at all time. Students learn well when they are actively involved in the learning process (Davis, 2003). Beckman (1990) & Cooper (1990) found that students feel satisfied with their instruction when they are actively engaged in the learning activity. Gray (2001) and Shibley

(2001) believe that learning materials should constitute activities that provide experience to learners. Wasley, Hampel & Clark (1997) maintain that *teachers need the opportunity and the expectation that they will work together to build the repertoire of skills that their students need* (p. 64). A teacher must be able to use a variety of instructional strategies such as demonstration, modeling, discovery or the lecture method to list but a few. Different teaching methods are required for different learners, different lesson objectives and different evaluation strategies. For instance auditory learners learn by hearing, visual learners learn by seeing and kinesthetic learners learn by touching (Lever-Duffy, McDonald & Mizell, 2005).

Research evidence stresses the importance of collaborative and team effort among teachers. Collaboration among employees and workers is a corner stone to successful industrial and business operations. By encouraging collaboration among teachers and among students, teachers are laying the foundation for team and collaborative work ethics for future workforce. Huard (2001) maintains that changes are necessary in teachers' pedagogical practices. Huard believes that teachers should engage in reflective and collaborative teaching so that students can exchange ideas to improve instruction. It is therefore, important that teachers develop the skill to select proper methods of assigning students into groups for collaborative activities. Fiechtner & Davis (1992) argue that some teachers use random assignment to allocate students to groups in order to ensure that heterogeneity is maintained so that female and male students as well as students with different personalities are spread across groups. Previously, individuality and competition among students were part of the school ethos but schools are now called to emphasize on collaborative learning and critical thinking. It is therefore, imperative for school curricular activities to reflect the ideals implicit in problem-solving, collaborative learning, discovery learning, and critical thinking among other ideals. Teachers are at the center of the changes taking place in the classrooms. Scardmalia and Bereiter (2002) reiterate that collaborative approach to learning provides opportunity for team construction of knowledge and this helps teachers to become a part of a learning community. For teachers to be successful, they need to work collaboratively by sharing ideas and through feedback. Developing thorough understanding of the various instructional strategies and acquiring the ability to select appropriate instructional methods to fit specific instruction will help teachers consolidate their roles as instructional methods specialists.

Teachers' Role as Technology Integration Specialists

In a teaching and learning context, technology is perceived as a tool, a device or equipment adapted for instructional use and for the purpose of enhancing teaching and learning. However, this perception can be seen as narrow. Okojie, Olinzock & Okojie-Boulder (2006) define technology integration in a broad perspective to include *teachers' understanding of the learning theories and their relationship with technological applications* (p.48). This means that teachers are expected to possess the theoretical knowledge that provides the foundation upon which technology integration is justified. Businesses and industries expect schools to produce candidates who can keep abreast with the revolutionary changes in technology and develop the skill to use technology to address contextual problems relevant to workplace needs. Teachers can play the role of technology integration specialists as they develop the skill and confidence to using technology to facilitate instruction.

Teachers Roles as Instructional Technology Researchers

The world has become knowledge and technology-driven community. Individuals from different parts of the world are within reach of each other in a matter of minutes. Old methods of teaching are being replaced with new ideas and textbooks are being revamped constantly. New software technologies are introduced into teaching and learning and the old software technologies are modified so that they can remain competitive. For teachers to succeed in using technology to facilitate instruction, they should assume the role of researchers in instructional technologies who are able to track technological changes and advancement and evaluate those changes in order to determine if they are appropriate for specific instructional tasks. Evaluating the appropriateness of various instructional technologies as they become available will help teachers to remain current in their teaching career. An effective teacher must endeavor to keep abreast of information and move with the trend of development, while critically evaluating those developments for validity and practicability. Teachers must be able to assess theories propagated in the textbooks in terms of pedagogical application and in terms of suitability for students' needs as well as their stage of development. To be able to do all these, teachers should be conducting research, reading journals, articles, and magazines dealing with instructional technology; critique the information obtained and in doing so develop new insight. They will consolidate the insight gained by sharing it with fellow teachers and students. Haslam (2002) states that teachers' knowledge grows as they discuss and share their experiences. Examining the importance of research in technology, Lewis (1999) believes that technology fosters human creative

instinct and argues that *technology is in essence a manifestation of human creativity. Thus, an important way in which students can come to understand it would be engaging in acts of technological creation. Technology as a context for creativity is an important area of research* (p. 4). Teachers are likely to develop a sense of fulfillment in their role as teachers who participate in contributing and shaping knowledge. Craver (1994) argues that emphasis is being shifted from school centered instruction to a more global information retrieval process. Craver believes that *the increasing connection between the ever expanding world of information requires an interpreter, consultant, instructor, as well as the gatherer of information* (p. xv).

Teachers' Role as Change Agents

With the explosion of technology as a learning tool especially computer technology, teachers' responsibilities and roles are expected to expand. Distance between nations is becoming an imaginary preposition because of the information super highway. World communities are more inter-connected from various perspectives such as economic, social, cultural and from technological standpoint etc. As a result of these connections, societal and individual expectations, interests and attitudes change at a faster pace. In order to address these changes, educational practices need to be changed to take into account changes outside the confine of the classroom. Adams (2001) states that teaching has become a complex phenomenon as schools make effort to structure curricular activities to reflect social and economic changes in the larger society. Teachers can also assume the role of change agents by introducing students to societal problems through service learning and they can challenge students to address those issues using problem-solving approach. According to national service-learning organization, service-learning is defined as *a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strength community*. (http://www.servicelearning.org/what_is_service-learning-learning_is/index.php, retrieved from the web on June 23, 2008).

The Role of Teachers as Mentors

A mentor can be described as anyone who desires or wants to share his/her experience with younger individual or individuals who have no experience or less experience in what they do. A mentor can be seen as a coach or adviser. A teacher who mentors students encourages them to be successful in their academic work. Such a teacher is likely to gain students' trust and he or she is also more likely to establish rapport easily with students being mentored. Mentorship from more experienced teachers in technology integration will help the inexperienced teachers by providing needed guidance and direction. It is always reassuring for new and inexperienced teachers to have working relationship with more experienced teachers so that they can consult together and exchange information and ideas. Experienced and knowledgeable teachers who serve as mentors and role models can be valuable resources for schools.

Teachers' Role as Long Life Learners

Lifelong learning can become a channel through which individuals grow in their careers as well as in their social and personal lives. Lifelong learning refers to both formal and informal education and training as well as self-directed learning effort. A lifelong learner enjoys learning and is inquisitive about learning. According to Barth (2005) a lifelong learner exhibits the ability to be self-directed in his/her learning approach and manifests the ability to reflect and evaluate information learned. A teacher who is a lifelong learner is more likely to up-date instructional materials as new information is discovered and as technology advances than a teacher who is not a lifelong learner. It is important for teachers to be lifelong learners in order to be able to meet changing demands and interests in a modern society where technology changes at a breath taking pace. A teacher who is a lifelong learner can model the qualities of lifelong learning to his/her students.

Setting the Stage for Learning

Teachers' role may not be exhaustively articulated because it includes both the tangible and intangible responsibilities and activities which teachers encounter as they engage in teaching. Teachers are expected to understand students' personalities and behaviors in order to reach them and to address their diverse learning problems. Some of these behavioral and personality traits are not overt but can only be deduced by interpreting overt characteristics that are exhibited by students. Teachers are required to deal with situations and events that

develop spontaneously. While it is recognized that teachers have some delineated and established functions they do as their job requirements, however, there are other unwritten tasks that teachers are expected to perform in order to be effective.

The best way to describe both the foreseen and the unforeseen roles of a teacher in any given learning environment is to conceptualize it as setting the stage for learning. But what does setting the stage for learning mean? It refers to teacher's understanding of the demands of instruction and his/her ability to reconcile those demands with the students' needs. By knowing and understanding the demands of instruction and students' needs, the teacher is in a better position to prepare learning activities and environment in anticipation of those demands and needs. According to Loeb (2007) *good teaching starts with inducing habits of mind, but doesn't stop there. Good teaching affects students' values, commitments and identities* (p. 7). Good teaching is about evoking students' curiosity to learn and triggering off ideas in them in an effort to stir them not only to learn but to critically interpret what they have learned. By awakening students' interest and desire to learn, the teacher has set the stage for students to learn.

CONCLUSION

In this paper it is recognized that there are other factors which may impact on the roles teachers play in the course of their career. Every classroom is unique and the uniqueness of a specific learning environment can impact on the roles teachers assume. The level of diversity in a given classroom and the characteristics of the students, the school culture and resources available for instruction as well as administrative expediency could exert influence on the roles teachers perform. The quality of teacher preparation, experience, level of satisfaction teachers enjoy and conditions of service among other things may help define the roles they play. Discussing various roles that teachers are expected to assume is recognition that successful teachers wear different hats. It is also recognition that teaching is not static but flexible and transformational because it is about change and about embracing new innovations.

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COMPUTER-BASED TESTING: A COMPARISON OF COMPUTER-BASED AND PAPER-AND-PENCIL ASSESSMENT

Karen A. Maguire

Coastal Carolina University

Daniel A. Smith

Coastal Carolina University

Sara A. Brallier

Coastal Carolina University

Linda J. Palm

Coastal Carolina University

ABSTRACT

This study examined the difference in test scores for students who engaged in proctored course assessments electronically via computer interface compared to students who took proctored assessments through a paper and pencil format in the classroom. A sample of 179 students registered in Intermediate Accounting I (CBAD 330) courses during the fall 2007, fall 2008, and summer 2008 semesters served as participants in this study. Each were given three non-cumulative and one cumulative assessments at approximately equal intervals throughout the semester. Forty three students completed all assessments electronically and 92 completed all assessment via pencil and paper. All students received the same in-class instruction, regardless of assessment format. ANOVA results indicated that students who completed all assessments electronically scored significantly higher than those students completing all assessments via pencil and paper. No interaction was present between test format and test number, suggesting that neither test format had a more severe learning curve.

INTRODUCTION

The purpose of this study was to compare assessment scores of students using proctored computer based tests (CBT) to test scores of students taking proctored paper-and-pencil tests in the classroom. Ertuck, Ozden, and Sanli (2004) define computer-assisted assessment (CAA) as encompassing a range of activities, including the delivery, marking, and analysis of all or part of the student assessment process using stand-alone or networked computers and associated technologies. More specifically, Wise, Bames, Harvey and Plake (1989) use the term computer-based testing (CBT) for when computer delivers a test in the manner and order as it would appear on a pencil-and-paper test.

Many professors are moving to computer based tests for benefits such as reduced grading effort and the ability to test more frequently (Erturk, Ozden, and Sanli, 2004). Professional certifications such as the CPA and CMA exam, as well as many graduate-level aptitude tests, such as the GMAT and GRE, are also given via computer program in a proctored testing center. Therefore, understanding what type of effect the CBT format has on the performance of the individual undertaking the test is not only important for the individual being assessed, but also for the entity using said assessments as a measure of that individual's ability.

In Erturk, Ozden, and Sanli's *Student Perceptions of Online Assessment* (2004) the researchers cite Bull & McKenna (2001) in providing the motivation for migrating to CBT:

- Increase frequency of assessments;
- Increase range of assessed knowledge;
- Increase feedback;
- Increase assessment methods;
- Increase objectivity;
- Reduce marking workloads; and
- Reduce administrative workloads.

CBT has several advantages in terms of time management within the classroom: it reduces instructional time dedicated to testing and allows more flexibility in scheduling and administering tests (Bonham, 2006; Bugbee 1996;

DeSouza & Fleming, 2003; Graham, Mogel, Brallier, & Palm, 2008; Zandvleit & Farragher, 1997). There are also advantages in terms of evaluating the test: it puts data directly into electronic databases which allows for easy item analysis (Bonham, 2006; Bugbee, 1996; Zandvleit & Farragher, 1997). It also makes feedback instantly available to instructors and students (Bonham, 2006; Bugbee, 1996; Zandvleit & Farragher, 1997). Finally, several studies have reported students prefer online tests to written ones (Bonham, 2006; Bugbee, 1997; Zandvleit & Farragher, 1997).

This study differed from prior research in that it sought to limit the academic dishonesty associated with computer based assessment (when unproctored), as well as mimic the environment the accounting students will experience if taking the CPA exam, by having the exam proctored. This study also strove to have the students take exams in the same format throughout the semester. The consistency associated with this method attempted to reveal any learning curve that may be intrinsic in either format that differs substantially from that of its counterpart. Learning curve, as it is applied in this report, will be assessed by analyzing test scores (performance) of the students in both computer based and paper assessment (practice) groups to determine if a significant change occurred between the differences in the respective means of the two groups from one exam to the next, in other words, within subject testing. A change in said value may suggest one group is becoming more adept in their respective exam format at a faster rate than that of the other group.

Results of both between and within subject ANOVA and t-tests suggest that there is a significant difference in assessment score between computer-based and traditional paper-and-pencil format. The difference in all cases was that CBT resulted in a higher average score than the traditional method.

Regardless of whether computer based testing increases or has no effect upon a students score, the limited amount of research on proctored computer based versus traditional assessment indicates that given the same instruction (Anakwe, 2008; Clariana and Wallace, 2002), computer based testing does not result in lower scores for students.

As previously mentioned, the between and within subject analysis of variance also allows for the consideration of the possible learning curve associated with potential lack of experience with CBT. It could be reasoned that if a learning curve existed in a manner that was significantly different from one testing medium to another, an interaction would be present as the scores for subsequent tests would become increasingly different. Although the difference in scores between CBT and paper may be increasing, interaction is not significant. This may indicate that students are already comfortable using computer technology as a means for assessment.

The findings of this study, taken into conjunction with those of previous studies, suggest that proctored CBT provides an accurate assessment of a student's abilities. Given the aforementioned benefits of computer based testing to the professor as well as the student, it seems logical that academic as well as professional organizations should continue to move toward computer based testing.

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OLD DOG, NEW TRICKS: A FACULTY PERSPECTIVE ON COLLEGE-LEVEL ONLINE INSTRUCTION AND PROFESSIONAL DEVELOPMENT

Cynthia J. Benton

State University of New York

ABSTRACT

A phenomenological study of higher education faculty experiences with course content adaptation, methodological changes, and program revision, this project summarizes both psychological and work-effort considerations for creating online learning environments. Using faculty journaling, student response, and faculty interviews, the qualitative, two-year study yielded consistent conclusions regarding the need for supported and interactive development for faculty. Online classroom practices are investigated, and a number of navigable and intractable problems in electronic learning are described. Implications for higher education practices in program design, faculty development and student learning are presented.

INTRODUCTION

If someone had said five years ago that I would be happily teaching online courses, both *hybrid* (meeting sometimes in person), and fully *asynchronous* (all interaction electronic), I would have laughed and pulled my protective, quasi-Luddite status around me like a cloak. With more than 30 years teaching experience, I firmly believed the electronic instructional craze, if not just a passing fancy, simply could not provide as effective teaching as a strong professor with students in a classroom provides. It did not occur to me the evolution of online education would be just the next step in an ever-broadening set of techniques for effective teaching. As I examined the factors that caused me to change my mind about the viability of online teaching, I arrived at several, which I detail in this report. The factors include: the physical necessities of delivering a program to a population of graduate students widely dispersed geographically; the desire to offer a course during abbreviated sessions; the exigencies of climate in Central New York; the need and capacity to deliver the course in ways that confirm material was sufficiently learned; and finally, being able to establish a relationship with students, which is critical to the act of teaching.

BACKGROUND AND STUDY RATIONALE

Challenges in learning to use college-level online teaching effectively are numerous and constantly emerging. That many faculty are digital "immigrants" rather than digital "natives" (i.e., they have not grown up surrounded by digital technologies) intensifies the challenge (Prensky, 2001). There are certain dynamic factors and conditions to be considered in designing technology approaches, reflecting some inherent inconsistencies in digital technologies on college campuses. Faculty may embrace the option of working with technology, but hesitate to implement it if curricular connections to their content areas are unclear.

Recent innovations in teaching with technology have underscored the importance of curriculum-based technology integration (AACTE, 2008). Studies have extended Shulman's (1986) conceptualization of the domains of professional knowledge for teaching into the realm of technology integration. Mishra and Kohler (2006) describe the unique knowledge teachers need to develop to embed technology in their instructional practice so students learn most effectively. *Technological pedagogical content knowledge* is the domain of teaching knowledge that weaves content, pedagogy and technology into a complex instructional methodology (AACTE, 2008). Such knowledge includes how to represent concepts using technology, using appropriate teaching pedagogies for the content knowledge, reflecting insight into how the subject matter is unique, knowing students' prior knowledge and learning style, and knowing how technologies can be used to both practice prior knowledge and develop new epistemologies in the electronic system (Mishra & Kohler, 2006). With such layered complexity in developing online learning effectively, it is understandable that faculty hesitate before engaging in such innovation.

Yet, emerging from online instruction are a variety of benefits, including greater opportunity for reflection, contributions from learners who tend to be silent in face-to-face settings but find their voice in mediated interaction, and unique opportunities for experiencing multiple visual representations and virtual experiences not practicable in a typical classroom setting (Dede, 2004).

The impetus for the current study, and for the author's conversion from in-person to electronic instruction came from a number of well-documented impetuses. Campuses, in response to shrinking numbers of undergraduate and traditional four-year students, and increasing numbers of non-traditional students, have rushed to develop

program offerings to accommodate distance learning. The comprehensive college where this study was conducted has expectations for extensive teaching and service from faculty, and distance learning was seen as one way to alleviate space and contact-hour expectations. Like many colleges, ours was adapting to meet the demands of a population spread over a large geographic area. With increased transportation costs, diminished student population, and additional pressures to update curricular offerings, online opportunities made sense.

The author chose to develop electronic offerings in this atmosphere, responding to a departmental program decision to change to online or hybrid delivery of all courses. A miniscule amount of funding was provided to develop courses. The author availed herself of one faculty development workshop and numerous group and individual help sessions with the technology support staff of the college.

METHOD

This study was designed using phenomenological and ethnographic methods following Bogden & Biklen's (2003) designs for qualitative research. The author was the primary source of data, but student evaluations and faculty interviews were also used to triangulate the information. The study took place in upstate New York, at a comprehensive college known primarily for teacher education programs.

Procedure and Design

Three data sources were used: journaling by the author, unsolicited (non-confidential) and evaluative (confidential) comments from students taking hybrid or asynchronous courses, and interviews with faculty members who had prepared, or were currently teaching online courses.

Journaling. Over the course of two academic years, I documented my online teaching experience. I recorded both the practical and professional, including notes on how the material had to be adapted, how I had to learn to use the computer to avoid physical exhaustion, and how I thought differently about course preparation in this setting. I also addressed the emotional and interpersonal feelings about the different ways of interacting with my students and the subject matter, enjoying a different level of freedom in preparation and delivery. I customarily wrote after each class session, and the notes were later typed into approximately 75 pages of data.

Student evaluations. Student comments were solicited through an online evaluation system. In addition, the instructor recorded comments students made throughout the course in reaction to instruction.

Faculty interviews. Individual and group interviews were conducted, using an open-ended discussion format. Faculty members reflected upon their implementation of online learning, the processes they went through to adapt learning materials and methods, and their assessment of the effectiveness of the online classroom. In addition, instructors defined their preferences and projections for the future regarding personal, programmatic, and college-wide use of the electronic classroom.

Data analysis. Data were analyzed using constant comparative analysis (Bogdan & Biklen, 2003). Journal entries were typed, coded for content similarities, and themes were identified from the content of the writing. Similar procedures were used for the student comments and faculty interview data. All three data types were compared, arriving at comprehensive conclusions about the content of the three data sources.

FINDINGS AND DISCUSSION

Adapting to Teaching and Learning Online

Instructional preparation. The pervasive message from both journal reflections and faculty input indicate important changes, both psychological and material, are necessary for faculty to prepare for and effectively deliver online teaching. Gearing up to teach an online class is unique in effort and emphasis. Preparing the course, locked in a technology room, trying to think through all the linkages between discussion, assignments, learning modules, resource links, and grade book was a unique exercise in curriculum planning. The technological aspect of *how* students would see the work often superseded *what* I was preparing for them to learn.

Certain aspects of teaching involving intuitive and personality characteristics are washed out in online learning. Some faculty want to "see the whites of their eyes" when discussing an issue. Others find judging how students react to online discussions, especially those involving humor, can be problematic. While in some instances, the instructor's "sixth sense" is reliable about the participation and achievement of the students, faculty sacrifice much of the ability to read between the lines they would usually employ in a typical college classroom.

Individual initiative emerged as the salient factor in determining who will choose to do online coursework. Instructors face the prospect of days of intense effort, revising the content of a course so it can be read, accessed, and linked to electronic sources; all assignments and resources must be revised to be transparent and immediately understandable. Faculty attitudes and motivation were also a major factor in the perceived success of the course by both the students and the instructor.

Instructional delivery. My tendency was to think of online teaching as "special education" and face-to-face, in-class teaching as "typical" instruction. This perspective changed after several courses in which I was able to meet students as individual learners in the electronic environment. When the issues of providing instruction were considered, certain critical questions drove my thinking: How will I know if they really read and use the text and content of the course? How can I know if the questions created for discussions and assignments are at the right level of challenge? Discussions often devolve into simple statements such as, "I agree," or personal anecdotes, "I think her ideas are great. Why, once when my third-grade teacher did" Special care was taken to devise discussion topics that were challenging and thoughtful, yet frequent revisions to original assignments were necessary to maintain continuity in the course and respond to student progress and comprehension.

After designing and beginning the course, the instructor often feels like a "typewriter with a brain." The engagement, rather than being a performance and interaction based on that performance, is... "a kernel cast out to the unknown, which you then sit back and wait to see which, if any, students will peck at the kernel." Such reactions and perceptions are part of the thought processes that alternately drive and cause online instruction to be uniquely challenged by the lack of personal interaction that characterizes the electronic classroom. In the case of my experiences, initial feelings of concern about the tenuous contact and connection with students gave way to a comfortable, sustained, and individualized electronic format contact that yielded excellent instructional results in most cases.

Differential Student Outcomes

Revelation of student differences becomes immediately evident in the online classroom. When they ask questions, capable students tend to focus on good ways to do things, requesting conceptual specification ("I'd like to do it this way—using these materials..."). Weaker students tend to ask lower-level operational questions (How much? How many? Is this right?) Most commonly, questions are about specifics of assignments, but not about higher-level thinking or questioning. Students tend to do the minimum required in the course.

Assignments and writing are the obvious evidence of student investment and capacity. Online courses require intense use of verbal skills—in reading independently, writing coherently, summarizing cogently and responding quickly. One characteristic is the quickness with which students respond—most tend to give immediate responses, or not at all. There is much evidence that students who are stronger verbally contribute at a higher level, and students who are not as verbal do not. Yet one outcome seems to be the benefits lower-achieving students can gain through interaction and discussion with higher-achieving students.

Interestingly, the electronic classroom provided for extensively individualized instruction. In typical classrooms, quiet students are often lost in the discussions or are too shy to compete with outspoken students to participate. In the electronic setting, all students are heard. Another concern that emerged was the distinction between typical electronic communication—the abbreviated text-message language, and the use of professional communication skills. This was another area in which more verbally sophisticated students excelled, and in which it was evident some students were at a loss.

The most beneficial learning aspect of online learning in this study was the individualized help provided through intensive language-based interaction. If, as represented in this study, the faculty member focuses on reflective writing as evidence of course content mastery, rather than simply testing, strong and recognizable benefits may accrue in the individual student's writing and critical thinking skills.

Technology and Implementation Problems

At least once in each semester, there was a problem serious enough to disable the system for at least one day, and in one instance, an entire week. Generally, however, the problems weren't in the electronic system, they were: 1) getting students focused and up to speed at a distance, especially those whose skills weren't adequate or hadn't taken an online course before, 2) students who had the attitude that online learning would somehow be easier, and weren't ready to expend the energy to learn independently, and 3) the instructor's reticence about her own limitations and desire to transform the teaching and learning style to which she was accustomed.

Weak students, while identified quickly, usually do not implode until it is too late to help them. Sending email reminders and questions goes only so far; the students who struggle, or who expect the task to be easy, are those who do not answer emailed concerns. Overall, discussions and emails created far more contact and discussion than I would have with students in a typical class. Yet, the challenges of making contact, clarifying course procedures and initiating students to the expectations of the course were, in about five percent of the student incidences, insurmountable. Course dropout or failure in every instance could be traced back to problems in initial contact and understandings about how online learning transpires. Similarly, those few students whose expectations were for an easy course, often found themselves floundering, and in most cases, resulted in lower grades than might have been anticipated in typical classroom instruction.

Finally, the technology skills of the instructor needed much updating. Extensive time blocks were needed to provide adequate time to revise coursework to fit the electronic format. Similarly, instructional support was needed, including numerous one-on-one technology workshops to translate the coursework into an online offering. Conviction about the value of such efforts may be understandably weak where institutional support is not supplied.

Student Evaluations

My course teaching evaluations were higher than previous semesters. I attributed this to the completely individualized nature of the process. Every student had individual help, numerous question and answer sessions electronically, and every student's work was evaluated extensively and returned with numerous comments. The instructor made use of the "return and resubmit" feature of the online classroom, which gave students more developmental support in completing the work. Surprising, a number of students felt the online course was as good as, or superior to, the typical classroom. They commented: "This was a great course." and, "I enjoyed myself so much more than I thought I would."

Student responses reinforce the individualized attention necessary to making online courses effective; one student responded, "I feel like I got so much more access to the professor." Some indicated the limitations of the system: "This was a difficult subject, and I would like to have been able to ask questions more often. Although, the professor always responded right away, it was impossible to say everything I wanted to ask. But I feel like I did okay."

CONCLUSIONS AND IMPLICATIONS

A number of implications emerged from this study. Program reorganization for online learning must include faculty development focused on reconceptualization of courses, along with specific enhancement of their skills for online delivery. The essentials of course offerings and programmatic balance must be carefully identified to determine ways the program will be effective online. A serious time investment is necessary to replicate and adapt good delivery, and to make individual contact with students. For institutions or programs wishing to provide high-quality instruction, faculty development funding and support is essential.

Taking an individualized approach to the learning task is just an extension of what we know about differentiated instruction; it is another manifestation of the capacity to adapt to each student's needs. The reduction of course enrollment to about 15 students is necessary to meet the individualized delivery and for managing online discussion and feedback. The evaluation of the course is often more obvious and transparent to the student, possibly making it seem easier to higher-achieving students. For lower-achieving students, certain benefits may be realized through individualized participation and responses, but issues of initial orientation to the format and sustained motivation may prohibit success in online learning.

Questions remain for further study. How can students be better prepared to accomplish the independent processing of course content required in online coursework? How can on-line discussions be better conceptualized to operate at advanced levels of thinking, yet remain manageable in an online classroom format? What venue should be developed to help faculty communicate with each other about their course delivery, content and contribution to the program? What supports must campuses offer to instructors willing to engage in expanding their instructional skills to online teaching?

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NO CHILD LEFT BEHIND: BUILDING THE CAPACITY OF SCHOOL-COMMUNITY RELATIONS**Brenda F. Graham***Concordia University Chicago***ABSTRACT**

The No Child Left Behind (NCLB) Act has increased pressure on districts and schools to raise student scores on mandated state assessments. Conversely, some children and youth have a variety of academic, social and health needs that hinder their success in schools. This means that schools are required to draw upon the powers of parents and members of community agencies to provide supplemental educational services (SES) to students. The capacity of each school to achieve the mandates of No Child Left Behind relies upon building strategic networks that involve the addressing, identifying, and utilization of family partnerships and community resources to assist in the provision of educational, cultural, health, and out-of-school needs of students. This paper will provide educational leaders with the knowledge and practical skills to plan and implement a collaborative approach to partnerships and assist educational leadership programs in their course planning efforts.

INTRODUCTION

Researchers and administrators have acknowledged for years that there is a profound gap in educational outcomes between children of different races, ethnic backgrounds, and cultures, particularly in regards to poor children who come from ethnic minority groups and the white middle class. Alternately, issues related to disparity in student learning, race, ethnicity, demographic changes in society, and socio-economic factors also contribute to student academic success. This oftentimes mean that programs targeted for extended learning and school improvement efforts must meet the needs of the whole student; and include academic, physical, social, emotional, and mental health resources. To help all students succeed, schools and communities must pay attention to the multiple dimensions of young people's lives (Coalition for Community Schools, 2006). The fact is that many students face problems that hinder their success in school. Moreover, many schools and districts work with limited resources and lack the infrastructure needed for school and student success. Responding to the need to provide alternate learning environments, congress passed the No Child Left Behind Act (NCLB) in 2001. The NCLB Act raised the bar by issuing policy based incentives that were created to force schools to reach proficiency on state level mandated tests. Significantly, NCLB required that schools and districts draw upon the powers of parents and members of community agencies to provide supplemental educational services (SES) to schools (U.S. Dept. of Education, 2002). The proposed mandates would have to be met, regardless of the viewpoints of district and schools.

Requirements of No Child Left Behind necessitate that school and district leaders have the knowledge and skills necessary to engage community partners in whole school reform planning related to student achievement. Importantly, these schools and districts must draw upon the resources and power of parents and the community for students' alternative academic needs and work to involve partners in whole school systemic improvement efforts. The requisite is that all students achieve proficiency, in math and reading by 2014 (U.S. Dept. of Education, 2002). The aim that is all schools and districts meet Adequate Yearly Progress (AYP). This means that schools and districts plan AYP goals and set specific targets for all students; including subgroups such as students with limited English proficiency, students with disabilities, students with different ethnic and racial backgrounds, and low-income students ((Manning & Patterson, 2003). To measure progress toward the goals, NCLB authorizes states to annually test students in grades three through eight. The districts and schools that continue to fail to make AYP are subject to sanctions that include corrective actions and restructuring. Importantly, the districts and their schools have to target school improvement strategies that assist in planning and meeting goals. Parents and community organizations who demonstrate the ability to positively impact achievement, particularly for low-income and minority students, are then chosen to provide supplemental education services (SES).

School accountability systems, improved instructional practices, and school community alliances are not isolated entities and must work collectively to bring about desired instructional improvement. The premise is that the partnerships work together to meet and enhance the instructional needs of educational programs in schools. Alternatively, many school districts, especially those in low income and some isolated rural areas have children and families with inadequate health care. Some may not have access to adequate health care. Furthermore, many of those districts do not have school psychologists or social workers and need healthcare partnerships that provide case

management services for families and children in need of outside supports. These connections are important in the prevention of future problems and play important roles in the development of effective school-community partnerships (Annie E. Casey Foundation, 2001).

In addressing some of these concerns principals must understand the importance of good community relationships. This requires school leaders who are collaborative, goal centered, have visionary leadership, and are able to engage community partners in a whole school reform effort for school improvement. Importantly, they must be communicators who have the ability to involve various stakeholders in a systemic effort of school improvement. While the partnership effort should be designed to meet the needs of the entire school or district; individual student needs must be targeted in the plan. This should involve community stakeholders who represent parents, community and business organizations, higher education and university personnel, mental health and social agencies, law officials and legal representatives, and state department officials and policy makers. This collaborative union will provide an infrastructure that will represent a variety of human, financial, and technical, supports that will address and benefit student performance and foster positive community relationships.

Parents, educators, policymakers, and youth-serving organizations have come to view after school programs as a promising strategy to promote intentional learning. The results of those partnerships have assisted in enhancing student achievement by providing support and needed services for schools, teachers, educational leaders, and all concerned stakeholders. The school partnerships connect families, local community members, local business leaders, local and state agencies and other organizations in the school improvement process (Epstein, 1997).

Prior to NCLB, the partnerships were committed to whole school planning of the school improvement effort; which included needs assessment, goal setting, and process planning. The focus was on strengthening the academic environment and assisting school leaders in improving the organization structures within the school by tapping community resources with academic supports. Professional development activities that related to district needs as well as parent and community responsibilities were made available and integrated in district and administrative policies. School administrators and leaders, district and teaching staff, as well as entire district and school personnel were equipped to participate in the school reform effort. Additionally, school level objectives; plans for implementation, and evaluation criteria were created and disseminated to the public. The school team consisted of administration, faculty, staff, and state and local partners who were vested in the school improvement effort. Procedures for evaluating goals, objectives and outcomes in relations to the school improvement process were articulated and evaluated for constant improvement.

The current NCLB policy has forced community partners to add assessment criteria related to accountability sanctions to their planning efforts. The requirements of the No Child Left Behind mandate that schools and districts in need of improvement give students the opportunity to make use of community and business alliances for supplemental educational services (U.S. Department of Education, 2002). These mandates must be met, regardless of district or school philosophies for or against the No Child Left Behind standards. However, principals and schools are dealing with many other social problems and at-risk factors that go beyond what is observed in schools. These children and youth have a variety of social and health needs that are hindering their success in schools. In order to meet the academic needs of students, schools must develop programs to counter the effects of risks and draw upon the resources and power of the community for students' academic needs. They must also work to involve partners in whole school systemic efforts (Epstein, 2001). Importantly, school leaders must have the knowledge and skills necessary to engage community stakeholders in mutual school improvement to meet the needs of the whole student.

School accountability systems, improved instructional practices, and school community alliances are not isolated entities. These entities work collectively to bring about desired instructional improvement. An important principle to remember is that a school in need of instructional improvement often signals that other aspects of the school's culture must be improved. Many schools are working with limited resources and must search for alternative options in order to provide effective educational environments for their students. In addition, some schools lack resources or infrastructures needed to respond to the diverse needs of students.

PROVIDING THE STRUCTURE

The primary outcome of school partnerships should be meeting the needs of the students and schools. In addressing these concerns principals must understand the importance of good community relationships. While the concern is more prevalent in some areas than others, these partnerships are important in the prevention of future problems. The community resources available for districts may include mental health agencies and regional health departments. These relationships play important roles in the development of effective school-community partnerships. Effective partnerships require goal centered leadership and collaborative decision making. Such

collaborations have the capacity to provide a variety of human, technical, and financial resources that may benefit students, teachers, administrators, and schools. The aim should be the alignment of services and resources to mobilize around ways to improve student performance and better community relationships.

COMMUNITY AND PARTNERSHIP RESOURCES

The rapid expansion of extended learning opportunities for schools to link with parents and communities has several advantages. First, parents are given choices and options for selecting organizations identified by school districts in addressing their children's educational needs. Second, the fiscal incentives designed by NCLB entice and motivate competition among service provider. Lastly, parents and community organizations servicing the after school and enrichment programs are chosen based on their ability to offer researched-based plans and practices. School leaders must acknowledge the range and degree of their partners' abilities, skills and resource capabilities (Epstein, 1998). In addition, school leaders must also make a concerted effort to involve various school community resources in planning, policy development, and process implementation of their school improvement process. The following list of potential partnerships and their input are based on their capacity to strengthen and enrich school improvement efforts.

Parents. Providing information and engaging parents, especially parents from historically underrepresented groups play a key role in achievement gains. In addition, parents should be the principle partners of schools and are familiar with their children and the concerns of the school. No Child Left Behind stipulates that schools and districts must prepare and report academic achievement results to parents. This partnership will foster faith and trust between schools and parents. Moreover, investing in parents as partners is an excellent step in school improvement planning.

Community based organizations. These organizations have an investment in the schools. Importantly, they have the willingness, concern, and ability to recognize and meet the needs of schools in their community. Many of these groups are already collaborating with schools. It is important to include them in the school improvement efforts. Examples of some potential community partnerships include the chamber of commerce, faith based initiatives, government entities (mayor's office, etc), and community civic leaders. Local businesses such as banks, newspaper organizations, service clubs, and union and trade associations are also influential community resources. Individuals in science and engineering groups, research labs, and local retirement organizations are potential community resources who are often overlooked. Members of local ethnic and language minority groups are also important resources. These resources are invaluable and are already set in place to serve the needs of students, teachers, parents, and other community individuals and groups.

Health and Social Service Agencies. Liaisons between schools and health and social services can be successful because those groups can assist schools in maintaining the personal-social and physical health of children and families. They may also assist schools by offering in-school agency services or by providing services to assist in matters such as prevention of substance abuse, child abuse, and children and family counseling. Because the academic success of children depends upon their maintaining mentally and physically healthy bodies, they may also provide individual and family counseling services to families.

Business and Industry. Businesses can be influential and powerful entities in partnership efforts. They are excellent resources for funding and providing instructional materials. Many businesses and industries also serve as valuable resources in policy and planning management, program implementation, and school improvement outcome activities. Most businesses have a vested interest in the schools in their community because they have a need for qualified personnel in prospective employees. Businesses may also provide internships and mentorship programs for students. Examples of these partnerships include utility companies, corporations, banks, insurance companies, real estate agencies, management firms, and credit unions.

Institutions of Higher Education. Colleges and universities are open to school partnerships and many are already investing in K-12 education by assisting schools in school improvement efforts. These alliances enable them to increase their enrollment, keep abreast of current educational issues, and apply theories and research. Some of those endeavors include assisting in curriculum design, overseeing business management; designing professional development for teachers and administrators, providing strategic reform efforts, and sustaining learning environments. In addition, many colleges of education have Professional Development Schools (PDS) that combine the knowledge and skills of schools and universities to develop the instructional performance of teachers.

State and Federal Government. Many of the present day reform efforts are influenced by federal or state government policies. In many instances, funding is targeted and established to assist schools in meeting the school improvement requirements. Schools in need of improvement and all Title I schools have state coordinators that have knowledge of resources and skills needed to assist low-performing schools. However, all districts and school can

benefit from state and regional agencies in school improvement efforts. Those assets must be fully utilized. Sources may include regional education liaisons, educational research based agencies, state and local legislators, state government agencies, and state departments of education.

While school partnerships have been in existence for decades, NCLB requires schools to develop community practices that deal with accountability, standards and assessment; and utilize community resources more effectively by requiring research based plans and services. Student achievement, and the provision of needed services for schools, teachers, educational leaders, and other stakeholders, has been enhanced by the mandate. Additionally, parents given choices related to the attainment of supplemental educational services for their children assist them in making informed choices affecting educational outcome. As a result, many failing schools and districts improve. Significantly, relationships formed with families, businesses, community service personnel, health agencies, colleges and universities, and other external support services are necessary to the achievement of successful student outcomes.

COMMUNICATING THE NEED: STEPS TO TAKE IN BUILDING PARTNERSHIP

Communities have a complex, social arrangement of individuals and groups who are “natural helpers” (Annie E. Casey, 2001). Those individuals have the ability to provide support and professional services to schools. Once school teams identify and align potential partners with the school’s needs and objectives, contact must be made and representatives from community resource groups should be invited to a joint partners’ meeting. It is essential that the principal is able to mobilize the partners and develop a shared understanding of the need. Data to articulate the need may be in the form of test results, school observations, questionnaires, interviews, and school and community surveys. A review of case studies and best practices may be instrumental in assisting partners in understanding the school improvement process. After the matter is defined, ground rules on how to meet the needs of the school improvement process should be agreed upon by group consensus. Finally, the partners should be given the opportunity to move toward a joint plan of action.

Developing Ownership and Trust

Before plans are developed, partners must demonstrate a desire to work with the school. The process should be guided by the needs of the school and the willingness and ability of the involved parties to meet the needs of the school improvement process. A climate of ownership and trust must be built and nurtured by the group. In addition, the group must develop strategies for group and individual responsibilities based on the school improvement plan and the resources of the partners. Ground rules on member accountability and problem resolution strategies must be created by group consensus. The focus should always be on collaboration and ownership by all members of the partnership. Partnerships are give and take initiatives - external partners provide time, resources, and planning while the school provides services and activities for families and the community

Developing and Implementing a Shared Vision

A partnership is a mutually collaborative agreement between schools and community stakeholders to establish plans and goals to meet district or school and student needs. A well-defined plan based on the requirements and desired outcome of the school improvement process must be designed by the partnership. The plan must meet the needs of the district or school and draw from the resources of the partnership. It should be informed by research and practices that reflect the goals of the school improvement process. Procedures for evaluating the goals, objectives and outcomes in relations to the school improvement process should be developed and articulated. Evaluation must be ongoing and incorporate all components of the school improvement process. Partners must be willing to work hard on the collaborative partnership process. Trust and a shared vision are essential elements that support sustained partnership relationships. Leaders must be willing to step up to that challenge and facilitate a shared vision. Scanning for strengths, weaknesses, opportunities, and threats is a vital factor in any strategic planning process. Partners should acknowledge and celebrate success and constantly evaluate strategies to determine if desired outcomes are being achieved (North Central Regional Educational Laboratory, 1998). Other guidelines for sustaining partnership relationships include:

- Joint planning and decision making
- Implementation of long and short-range
- Responsibility and accountability of roles

- Commitment of partners to the plan
- Conflict resolutions and respect
- Trust and mutual dependence
- On-going evaluations

CONCLUSION

Schools alone do not have the infrastructure to build the social and developmental foundations needed for all students to achieve academically. Many schools, school leaders, and community members from all sectors of society have formed partnerships and have developed innovative solutions for meeting the challenges of educating children and youth. Relationships can and have been formed with families, businesses, community service personnel, health agencies, colleges and universities, and external support services. The results of those partnerships have assisted in enhancing student achievement by providing support and needed services for schools, teachers, educational leaders, and all those involved.

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American Institute of Higher Education LLC,

P.O. Box 3552, Cary, NC 27519, USA;

info@amhighed.com

<http://www.amhighed.com>

