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HOW "I" CAN IMPROVE YOUR CLASSROOM PERFORMANCE

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ABSTRACT

Innovative teaching in the classroom can only be successful if instructional pedagogy begins with and ends with personal passion. Instructors were hired for their subject expertise. However, any application of this information can only benefit the college student if the student is first receptive to the provider of this expertise. The liaison between the students and the educational information is the college instructor's attitude. Sometimes a performer, sometimes a cheerleader, sometimes a catalyst, but, at all times, the instructor is a valuable resource for the student and his/her future. As the conduit for knowledge, the instructor must first crack the veneer of the student's psyche before the educational substance can filter through. When instructors are brash and arrogant, or dull and boring, they take the form of a "zero" as opposed to being an educational hero. Poor instructors construct barriers between themselves and their students. If the caring part of a college instructor is omitted from the classroom, his/her information is nothing but a rusty collection of bromides and a few misplaced quotations.

Twenty-six adjectives have been identified to remind instructors to put the "I" back into the classroom. Doing so increases the probability for the student floodgates of knowledge to open. Positive actions such as ingenious, intriguing, imaginative and interesting remind instructors to identify and integrate creativity and interest into lectures and coursework.

Un-motivational attitudes and activities such as ignorance, impatience, insolence, and insipid, should be eliminated from the instructional portfolio. Integrating these negative attitudes and activities into one's teaching pedagogy is guaranteed to decrease teaching effectiveness.

Whether you are a seasoned instructor or are just embarking on a career in academia, implementation of this pedagogical philosophy guarantees an improvement in one's teaching style. This philosophy energizes students, encourages them to reach new heights, and exponentially educates them both personally and professionally. All students deserve their instructor's best effort. Instructors who are not excited and enthusiastic about their respective specific subject area are ignorant in expecting their students to become excited. By creating an environment conducive to learning, instructors are building a strong rapport with students. Doing so will result in students reacting to this positive instructional philosophy. Students will work at impressing their instructors through the byproducts of commitment and increased knowledge. When an instructor has captured the interest of his/her student, the instructor has succeeded in capturing the mind.

THE RELATIONSHIP BETWEEN SCHOOL CHARACTERISTICS AND STUDENT PERFORMANCE ON STANDARDIZED TESTS IN THE DENVER METRO REGION

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ABSTRACT

The No Child Left Behind Act of 2001 mandates the assessment of students in public schools in reading and mathematics. The Act also requires that parents of students in poor performing schools be given the option of enrolling their children in a different school. The assessment of students is based on the widely supported idea that schools need to be held accountable to the public and the assessment of students through standardized testing is the primary means for providing accountability. In Colorado, parents have choices regarding what school they want their children to attend. The schools' rating often influences the choice parents make. The rating is mainly a reflection of student scores on a standardized test. School funding, teacher stability, and the potential segregation of students by socioeconomic status are just some of the issues associated with school choice. Understanding the relationship between school characteristics and student performance will aid policymakers in evaluating the social impact and potential consequences of current education policies. This research examines the relationship between various school level characteristics and student test scores in reading, writing, and math from 2001 to 2007 for elementary schools in the Denver Metropolitan Region.

INTRODUCTION

In 1993 the Colorado legislature passed HB 93 - 1313. This law required the state to develop content standards in twelve subject areas and a procedure for assessing student achievement. The student assessment tool is called the Colorado Student Assessment Program (CSAP). The CSAP test was first administered in 1997 to 4th graders in the subject areas of reading and writing. Currently, the test is administered to grades 3 - 10 in reading and writing, grades 5 - 10 in math and grade 8 in science. The stated goals of CSAP are: 1) To determine the level at which Colorado students achieve the Colorado Model Content Standards, 2) To measure the progress of students over time, and 3) To add to the body of evidence to determine 3rd graders literacy levels (Colorado Department of Education, Unit of Student Assessment).

Student performance on the tests are categorized as unsatisfactory, partially proficient, proficient or advanced. The results of the tests are issued in state, district, school and individual reports. The reports provide data on the total and percentage of students who scored in each performance category as a whole and disaggregated based on various demographic variables such

as gender and ethnicity. At the school level, CSAP scores are an important component of the School Accountability Report (SAR). Schools are ranked on the basis of their students' scores on the CSAP tests. Schools are ranked as Unsatisfactory, Low, Average, High, or Excellent. In addition to the overall school ranking, the SAR includes other school level data such as safety and school environment, taxpayers' report, school history, and staff information.

This research examines the relationship between various school level characteristics and student test scores in reading, writing, and math from 2001 to 2007 for elementary schools in the Denver Metropolitan Region.

LITERATURE REVIEW

The majority of studies concerned with school characteristics and student performance are regional in scope. The most common characteristics examined include; teacher experience, student attendance, student enrollment stability, class size, and student socioeconomic status.

According to an Ohio study, the factors that have the greatest impact on student achievement include student teacher ratios, teacher quality, student attendance, and student mobility (Carr, 2006). The research found that a higher ratio of students to full-time teachers was associated with higher student achievement; however it also found that reducing class size by increasing the number of part-time teachers did not improve student performance. Regarding student mobility, schools that experience higher turnover rates have lower levels of student performance even if the school has high attendance rates. Characteristics of the student body, including the number of minority and economically disadvantaged students were negatively related to student performance.

Research involving New York City schools revealed that the poor performing schools, as measured by student test scores, were schools that served mainly economically disadvantaged and minority students (Stiefel, Schwartz, & Iatarola, 2000, Stiefel, Schwartz, & Iatarola, 2001). Schools with a higher percentage of non-white students and a higher percentage of students eligible for free lunch had lower test scores. These schools were also associated with low student attendance rates and teachers with limited teaching experience.

In a study of the determinants of student achievement in San Diego, researchers found that the most important determinant of students' gain in test scores was the individual student's classroom peer achievement (Betts, Zau, & Rice 2003). The authors contend that students are greatly influenced by the achievement levels of the students around them. Attendance rates were also an important influence on gains in students test scores and class size was important at the elementary but not middle or high school levels.

Focusing on the impact of students attending racially segregated schools and their performance on standardized tests, researchers in Florida found that students who attended black segregated schools scored lower than students who attended white segregated schools, however when controlling for other determinants of school-level performance, students who attended integrated schools did not score significantly lower than students in white segregated schools (Borman, McNulty Eitle, & Eitle 2004). The researchers also found that student enrollment stability and free lunch eligibility had a negative and significant relationship with the percent of a school's students passing a state standardized test in reading and math.

METHODOLOGY

The purpose of this study is to identify school specific characteristics that most affect student achievement. Student achievement is measured using the reported results of the CSAP exam for reading, writing, and math. The three area exam scores are averaged for each school resulting in a CSAP composite score reflecting the level of student performance for the respective school.

The population of interest in this study consisted of elementary schools located in the greater metropolitan area in the Denver, Colorado region. This defined region of interest included Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson Counties. School level data was gathered from the Annual School Accountability Reports published by the Colorado Department of Education for the years 2001-2007 (6 academic years) for each elementary school in existence for all six years in each county.

A matrix of correlations between the school's composite score and all other several independent variables was established. The results indicate a strong relationship between student performance (as measured by the CSAP composite score) and student attendance rates, student enrollment stability, and the free lunch variable. The correlations also reveal a strong relationship between student performance and student membership (ethnicity), most remarkably for Black, Hispanic and White students; however, as becomes evident within the regression analysis, this performance/membership correlation appears more symptomatic of relative poverty than of student performance predisposition.

In addition to the correlation matrix, a least squares regression model was created for each year of data using the composite CSAP score as the dependent variable. The results indicate that student membership data is statistically significant for Black and Hispanic memberships across all years having a seemingly negative impact on CSAP composite scores. The membership data is not consistently significant for American Indian or Asian Pacific Islander memberships, although the directional impacts are consistent; being negative for American Indians and positive for Asian Pacific Islanders. Multicollinearity was identified in the regression analysis between minority membership data and the free lunch variable, especially for the Hispanic and White categories. Average correlation of 82.5% is present between the Hispanic and free lunch variables and the average correlation between White and free lunch is -82.04%. Correlation is present between the poverty measurement and Black, American Indian, and Asian Pacific Islander membership categories as well but not to the same degree. When student membership information is removed from the model, the change in the statistical significance on the free lunch variable is remarkable.

DISCUSSION AND SUMMARY

Through the above analysis, this study has identified school characteristics that contribute to the level of student performance in elementary schools in the six-county metropolitan area surrounding and including Denver, Colorado. The variables that proved most significant were student attendance rates, the percent of students within the school eligible for the free lunch program, the student enrollment stability for the school, the school's student-teacher ratio, the average number of days that teachers in the school are absent, and the percent of teachers at the school with tenure. The variables with the most significant and consistent impact on student

performance across all six years studied are attendance, free lunch, student enrollment stability, and the percent of teachers with tenure.

The effect of student attendance rates on student performance seems quite intuitive and it does indeed provide the model with the expected effect. The regression coefficient on the attendance variable is consistently positive and varies in magnitude across the six year period. Using the 2001-2002 model, one can see that if student attendance rates increased by 1 percent, the percent of students proficient or advanced reflected in the composite CSAP score would increase by 1.472 percent, holding all other variables in the model constant. Similar logic can be used to interpret this coefficient across the other years.

The poverty variable is quite significant and negative in its relation to the composite score variable, indicating that as the percent of students eligible for the free lunch program increases, the percent of students proficient or advanced based on the composite score falls. This result is consistent with results identified in other studies across the nation (e.g., Carr, 2006; Betts et al, 2003; Borman et al, 2004; Goodwin et al, 2006; Stiefel et al, 2000). There are many reasons identified in the literature and in the social/political rhetoric as to why this relationship persists in the data. As the scope of this study is expanded in the future, it is hoped that a grasp on this question can be obtained. Until then, it will be assumed that students living in and exposed daily to the stresses and hardships of poverty do not perform as well on standardized tests.

Student enrollment stability (SES) is referred to as a mobility factor in much of the literature. However, differing terminology did not change the effect of this variable on the composite score variable. The more stable the student population in a school, the higher the student performance level on standardized exams. Students at school (like adults at work) perform better with a certain degree of stability and consistency within their environments.

The tenure variable is the final variable of statistical significance in all six models to discuss. Although the magnitude of the coefficients is quite modest across all six model years, the sign is telling. Teachers with tenure tend to have more years of teaching experience and perhaps more freedom in their classroom management techniques. Experience and the ability to use that experience to tailor the teaching methods toward the needs of specific target groups of students should and does yield higher level of student success and performance.

REFERENCES

- Betts, J.R. (1995). Does School Quality Matter? Evidence from the National Longitudinal Survey of Youth. *Review of Economics and Statistics*, 77(1), 231-250.
- Betts, J.R., A.C. Zau, & L.A. Rice (2003). *Determinants of Student Achievement: New Evidence from San Diego*. Public Policy Institute of California.
- Borman, K.M., T. McNulty Eitle, D. Michael & D.J. Eitle (2004). Accountability in a Postdesegregation Era: The Continuing Significance of Racial Segregation in Florida's Schools. *American Educational Review Journal*, 9(2), 605-631.
- Buckingham, J. (2003). Class Size and Teacher Quality. *Educational Research for Policy and Practice*, (2), 71-86.

- Caldas, S.J., C.L. Bankston III, & J.S. Cain (2007). A Case Study of Teachers' Perceptions of School Desegregation and the Redistribution of Social and Academic Capital. *Education and Urban Society*, 39(2), 194-222.
- Carnoy, M., & S. Loeb (2002). Does External Accountability Affect Student Outcomes? A Cross-State Analysis. *Educational Evaluation and Policy Analysis*, 24(4), 305-331.
- Carr, M. (2006). Determinants of Achievement in Ohio's Public Schools. Buckeye Institute for Policy Solutions.
- Darling-Hammond, L. (2000). Teacher Quality and Student Achievement: A Review of State Policy Evidence. *Education Policy Analysis Archives*, 8(1).
- Colorado Department of Education, Unit of Student Assessment. Retrieved from http://www.cde.state.co.us/cdeassess/documents/csap/csap_disag.html
- Colorado Department of Education, School Accountability Reports. Retrieved from <http://reportcard.cde.state.co.us/reportcard/CommandHandler.jsp?cmdSelect=&GeoAreaType=3&schoolLocation=3&ListItemName=Districts>
- Escamilla, K., L. Chavez, & P. Vigil (2005). Rethinking The "Gap": High Stakes Testing and Spanish-Speaking Students in Colorado. *Journal of Teacher Education*, 56(2), 1-13.
- Fusarelli L.D. (2004). The Potential Impact of the No Child Left Behind Act on Equity and Diversity in American Education. *Educational Policy*, 18(1), 71-94.
- Goddard, R.D. (2003). Relational Networks, Social Trust, and Norms: A Social Capital Perspective on Students' Chances of Academic Success. *Educational Evaluation and Policy Analysis*, 25(1), 59-74.
- Goodwin, R.K., S.M. Leland, A.D. Baxter & S. Southworth (2006). Sinking Swann: Public School Choice and the Resegregation of Charlotte's Public Schools. *Review of Policy Research*, 23(5), 983-997.
- Hanushek, E. (1986). The Economics of Schooling: Production and Efficiency in Public Schools. *Journal of Economic Literature*, 24, 1141-1177.
- Harris D., & N. Flanagan (2007). Class Size and Student Learning. *Education Week*, 26(26), 30.
- Heinlein, L.M., & M.B. Shinn (2000). School Mobility and Student Achievement in an Urban Setting. *Psychology in the Schools*, 37(4), 349-357.
- Hong, W.P., & P. Youngs (2008). Does High-Stakes Testing Increase Cultural Capital among Low-Income and Racial Minority Students? *Education Policy Analysis Archives*, 16(6), 1-21.
- Marcoulides, G., R. Heck, & P. Constantinos (2005). Student Perceptions of School Culture and Achievement: Testing the Invariance of a Model. *International Journal of Educational Management*, 19(2), 140-152.
- Moe, T.M. (2008). Beyond the Free Market: The Structure of School Choice. *Brigham Young University Law Review*, 2008(2), 557-593.
- Reardon, S.F., J.T. Yun, & M. Kurlaender (2006). Implications of Income-Based School Assignment Policies for Racial School Segregation. *Educational Evaluation and Policy Analysis*, 28(1), 49-75.

Stiefel, L., A.E. Schwartz, & P. Iatarola (2000). Academic Performance, Characteristics and Expenditures in New York City Elementary and Middle Schools. Condition Report prepared for the Education Finance Research Consortium.

Stiefel, L., A.E. Schwartz, & P. Iatarola (2001). Determinants of School Performance in New York Elementary Schools: Results and Implications for Resource Use. Condition Report prepared for the Education Finance Research Consortium.

United States Department of Education: Office of Educational Research and Improvement (2000). Monitoring School Quality: An Indicators Report.

RECREATING THE QUANTITATIVE CLASSROOM FOR ADULT LEARNERS

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ABSTRACT

Are college students "child" learners or "adult" learners? Student engagement strategies have long been used in quantitative classrooms, but the assumption of instructors has largely remained the person primarily responsible for learning is the instructor. This paper suggests college students in the business quantitative analysis course should be provided an adult learning environment. We further suggest this can be accomplished by adopting a problem-based learning approach, which in turn leads to better mastery of the subject matter and a better satisfied student.

INTRODUCTION

Quantitative courses are typically not among most students' favorites. Courses as quantitative analysis, statistics, and calculus tend to be viewed as hurdles which must be successfully negotiated in order to proceed with other degree requirements. Rarely are these courses viewed as a set of tools which can provide insights into other topics. There are probably many reasons for this: weak secondary school preparation, an intimidating math teacher in their past, lack of perceived relevance, or a bow to popular culture that says math is hard and only smart people can do it.

As one considers reasons why many students do not like quantitative topics or find them difficult, instructional techniques must also be questioned. Math instruction tends to follow the traditional instructional strategies of instructor explanation followed by student practice. As criticism of stand and deliver approaches has become more prominent, engagement strategies have been implemented to enhance student understanding of quantitative tools and their importance to many jobs (See Hakeem, 2001; Lovett & Greenhouse, 2000; Philpot & Peterson, 1998; Polito, Kros, & Watson, 2004 as examples). In spite of progress, are most college quantitative courses still taught implicitly assuming college students are child learners, not adult learners and does it matter?

The late Malcolm Knowles explored the concept of adult learning, which he called "andragogy" (Knowles, 1970; Knowles, 1980; Knowles, 1990; Knowles, Holton, & Swanson, 1998). According to Knowles (1998), adult learners have the following characteristics:

1. They like to be self-directed,
2. They want to be actively involved in learning processes,
3. They learn best when they have a need to know,
4. They connect new learning to past experiences, and
5. They need to apply their learning in the real world.

From this list, one can clearly contrast one assumption of child learning and adult learning: adults require more involvement in the learning process. The only question is, "Do college students have more of the characteristics of adult learners or child learners?" We suggest the former, which has significant implications for the teaching strategies used in quantitative courses.

The purpose of this research is to examine the results of moving away from a traditional, pedagogical approach to quantitative instruction to an adult-focused, andragogy approach. We will detail Knowles' concept of andragogy, adult education, followed by a description of how we altered a required quantitative analysis course in the college of business to reflect Knowles' primary characteristics of adult learning. Finally, we will report the results of student perceptions of the learning experience and changes in their subject mastery.

PEDAGOGY VS. ANDRAGOGY

"Pedagogy literally means the art and science of educating children (Connor, 2008)." The pedagogical model of instruction was originally developed in the monastic schools of Europe during the Middle Ages. Young boys were received into the monasteries and taught by monks according to a system of instruction that required these children to be obedient, faithful, and efficient servants of the church (Knowles, 1984). In the pedagogical model, the teacher has full responsibility for making decisions about what will be learned, how it will be learned, when it will be learned, and if the material has been learned. Pedagogy, or teacher-directed instruction as it is commonly known, places the student in a submissive role requiring obedience to the teacher's instructions. It is based on the assumption that learners need to know only what the teacher teaches them. The result is a teaching and learning situation that actively promotes dependency on the instructor. Evidence that this model is still the most accepted model of learning is evinced by the evaluation systems implemented by most colleges. These systems include discussions and critiques of how the instructors present material and its effectiveness as perceived by students. An unfortunate side effect of a teacher-focused approach to learning is dampening naturally curious learning instincts by controlling the learning environment (Connor, 2008). At some point, however, as learners gain maturity, they become increasingly independent and responsible for their own actions and require different approaches to learning.

Andragogy, a concept of adult learning developed and promoted by the late Malcolm Knowles (1998), is based on the assumption that all adults want to learn (1980). Andragogy is defined as, "The art and science of helping adults learn (Knowles, 1970)." Traditional childhood learning is oriented toward the teacher imparting knowledge to the students. As students become older they transition into adult learners wanting more involvement and responsibility for their own learning. The andragogy model, as conceived by Knowles, is predicated on five basic assumptions about learners:

- 1) Letting learners know why something is important to learn,
- 2) Showing learners how to direct themselves through information,
- 3) Relating the topics to the learners' experiences,
- 4) Learning will not take place until students are ready and motivated to learn, and

- 5) Teaching may involve helping students overcome inhibitions, behaviors, and beliefs about learning (Connor, 2008).

As one examines this list, a clear question arises, "How do these assumptions for adult learning differ from "child" learning? The truthful answer, and one acknowledged by Knowles, is that four of the five aren't different. However, children have far fewer experiences, pre-established beliefs, and less repressed curiosity than adults, and thus have less to which they can relate. By the time students have reached college age, most have acquired a significant number of experiences that can enhance their understanding and appreciation of quantitative material. They can, for example, relate to the need to forecast demand in order to make other decisions about the materials required or the number of workers necessary to meet expectations. They can relate to the necessity of controlling costs for inventory or efficiently planning a project. It seems logical, therefore, that the learning environment for these students should contain the characteristics suitable for adult learners rather than the teacher-focused orientation of pedagogy.

PROBLEM-BASED LEARNING AND THE KNOWLES LEARNING ENVIRONMENT

Knowles provides the following list as essential characteristics of the successful adult learning environment:

1. Learning is a process-as opposed to a series of finite, unrelated steps.
2. For optimum transfer of learning, the learner must be actively involved in the learning experience, not a passive recipient of information.
3. Each learner must be responsible for his or her own learning.
4. The learning process has an affective (emotional) as well as an intellectual component.
5. Adults learn by doing; they want to be involved.
6. Problems and examples must be realistic and relevant to the learners.
7. Adults relate their learning to what they already know.
8. An informal environment works best. Trying to intimidate adults causes resentment and tension, and these inhibit learning.
9. Variety stimulates.
10. Learning flourishes in a win-win, nonjudgmental environment.
11. The learning facilitator is a change agent. The instructor's responsibility is to facilitate. The participants' responsibility is to learn.

Experiential learning approaches contain many of these characteristics, especially problem-based learning techniques.

The way a topic is taught determines what students can do with the information acquired (Mayer & Greeno, 1972). Problem-based learning is an educational approach that provides students with the knowledge appropriate for problem-solving. It challenges students to "learn to learn," an important tenant in Knowles' adult learning theory. The distinction between problem-based learning and other forms of cooperative or active learning often are blurred because they share certain common features and hybrid approaches abound as instructors adapt methods for particular situations. However, an essential component of problem-based learning is that content is introduced

in the context of complex real-world problems. In other words, the problem comes first (Boud, 1985; Boud and Feletti, 1991; Woods, 1985). This contrasts with prevalent teaching strategies where the concepts, presented in a lecture format, precede "end-of-the-chapter" problems.

In problem-based learning, students working in small groups must identify what they know, and more importantly, what they don't know and must learn to solve a problem. These are prerequisites for understanding the problem and making decisions required by the problem. The nature of the problems precludes simple answers. Students must think critically and analytically and go beyond their textbooks to pursue knowledge in other resources outside their group meetings. The primary role of the instructor is to facilitate group process and learning, not to provide easy answers. Students are encouraged to verbalize what they know, and what they need to know in order to address the problem. The instructor responds to these questions and introduces tools or knowledge as it is requested by students. Such an approach contains many of the characteristics for successful adult learning listed previously. Real problems are used to engage students' curiosity and initiate learning the subject matter, something sorely lacking in most pedagogical approaches to quantitative material.

THE STUDY

We began our study with several assumptions:

- 1) College students are, and should be accommodated as, adult learners,
- 2) Consistent with adult learners, students in quantitative analysis courses want to learn, and
- 3) Students prefer not to have lectures, especially in quantitative analysis. They would rather talk about classroom topics by expressing their feelings or concerns for the practicality of the topics subject to their needs.

Our research questions are as follows:

"By incorporating the essential characteristics of learning as described by Knowles, can a problem-based learning approach change the learning environment of the quantitative classroom?"

"Do students recognize the changed environment in terms of the characteristics described by Knowles?"

The questionnaire in Appendix A was designed to assess the degree to which 9 of the 11 Knowles' essential characteristics of the adult learning environment were present in the classroom (NOTE: Characteristics 1 & 10 were not addressed). The questionnaire was administered at the end of the semester to multiple sections of a quantitative analysis course over two successive semesters. The same instructor taught all sections. Classes taught in the previous semester were conducted in an interactive, student-engaged manner, but not using a problem-based approach or with regard to promoting the essential characteristics associated with successful adult learning. Classes taught in the latter semester were conducted exclusively with a problem-based learning approach. Each

quantitative tool covered was introduced through a real business problem. When possible, appropriate videos were shown to demonstrate the importance of solving similar problems and the benefits of those solutions for companies' competitive positions. Students worked in groups and were encouraged to pose questions necessary for them to address the problem. The instructor facilitated the learning process by introducing quantitative tools when students recognized their need to use the appropriate tools to gain necessary information.

RESULTS

We were interested in determining whether students perceived differences in the characteristics of the learning environment when classes were conducted in two distinctively different ways. We were also interested in seeing whether these differences impacted student behavior in the classroom. Table 1 reports the results of simple paired comparison t-tests between answer means from the classes taught in a non-problem-based approach with no regard to Knowles' theory of adult learning, compared to classes taught using the problem-based approach with an emphasis on creating an environment consistent with Knowles' essential characteristics of the successful adult learning environment.

TABLE 1

Knowles Characteristic	Survey Question(s)	Significance
K2: Learner must be actively involved in learning experience	I was actively engaged in the learning process.	Difference Significant at 0.01
K3: Learners must be responsible for their own learning	<ul style="list-style-type: none"> • I believe I was primarily responsible for my learning • I believe the professor was primarily responsible for my learning 	<p>No significant difference</p> <p>Difference significant at .05 with latter semester believing professor was most responsible for student learning</p>
K4: The learning process has an affective component	I was emotionally motivated by the topics in this course.	Difference significant at .05
K5: Adults learn best by doing	<ul style="list-style-type: none"> • The most beneficial activity that helped me learn was demonstrations of quantitative tools • ...doing activities and assignments 	<p>No significant difference</p> <p>No significant difference</p>
K6: Problems and examples must be realistic and relevant	The material in this class was realistic and relevant	Difference significant at .01
K7: Adults relate learning to what they know	This class drew on things I already knew.	Difference significant at 0.01
K8: Informal learning environments work best	I thought the class learning environment was informal.	No significant difference
K9: Variety stimulates	The instructor used a variety of learning approaches	No significant difference

K11: The learning facilitator is a change agent	<ul style="list-style-type: none"> • The instructor's approach facilitated my learning • The instructor's role is to create an environment for student learning 	Difference significant at .01 No significant difference
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DISCUSSION

Introducing a problem-based approach to a quantitative analysis course and attempting to create an environment consistent with Knowles' adult learning tenants resulted in mixed results in this study. Each characteristic examined bears discussion. We begin with those characteristics where there were significant differences between the traditionally presented class and the problem-based learning class.

K2: Learners must be actively involved in learning experience. Students in the problem-based class reported being more actively engaged in the learning process than those in a more traditionally presented class. Problem-based learning by its nature forces students into more participative roles. They must work through groups, formulate questions, seek answers to those questions, and engage themselves in subject mastery through readings and work beyond the textbook.

K3: Learners must be responsible for their own learning. Students still find it difficult to either accept responsibility for their own learning or to recognize their roles. There was no significant difference between the traditionally taught class and the problem-based learning class with respect to student opinions about their role as primarily responsible for their own learning-they did not accept responsibility in either class. Students in the problem-based learning class thought the instructor played a more prominent role in their learning than those in traditional classes. This was an unexpected result. Perhaps students in the problem-based course felt this was the way the instructor "wanted" them to answer the question; that is, students recognized the class was different and the credit for that difference should be attributed to the instructor.

K4: The learning process has an affective component. Problem-based learning and an adult learning environment does evoke more emotion in the study of quantitative analysis than does a traditionally presented class. Anecdotally, students seemed to enjoy the process of debating real problems, especially those with direct impacts on them. An emotional attachment to issues also induces an element of "fun" into the learning process, a characteristic Blaylock & Hollandsworth (forthcoming) found important in the motivation of students to engage outside-of-class study activities.

K6: Problems and examples must be realistic and relevant. Problem-based learning uses real problems; therefore, it is not surprising students that students in those classes found the examples more realistic and relevant than students who pursued the topic through end-of-the-chapter exercises.

K7: Adults relate learning to what they know. Understanding complex issues requires a frame of reference. The processes used in the problem-based learning classes encouraged students

to think about problems in the context of how they impacted themselves or acquaintances. Discussions included many opinions and anecdotes that students eventually realized had to be substantiated and supported through appropriate analyses.

K11: The learning facilitator is a change agent. Knowles states the instructor's role is to present information or skills necessary to understand a topic and to "create an environment in which exploration can take place (Knowles, 1980)." Students did perceive a difference in the instructor's role of facilitating learning between the two types of classes; however, there was no significant difference in their perception of the instructor's role in creating an environment for student learning. The latter unanticipated result may also be attributable to the answer students believed the instructor wanted to see. Regardless of the classroom environment, students see the instructor as responsible for it.

Equally interesting were some of the Knowles' adult learning characteristics where no significant differences were found.

K5: Adults learn best by doing. Two questions were used to assess this dimension. Students were asked which activities were most beneficial: demonstrations of quantitative tools or doing activities and assignments. Based on Knowles' theory we would have expected students in the problem-based classes to have found doing activities and assignments to be more beneficial than those in the traditionally taught class. This was not the case. The instructor of all these classes used many examples and different assignments regardless of the overall format. Perhaps students perceived examples and applications presented as equally beneficial in both types of situations. This explanation may also account for the lack of significant difference for K9: Variety stimulates.

K8: Informal learning environments work best. Knowles is very clear about the negative impact tests and exams have on adult learning. While the authors provided additional evaluation opportunities in the problem-based course (short reports, mini-cases, and computer assignments), tests remained part of the assessment criteria. This one factor could have prevented students from adjudging the problem-based course as more informal.

K9: Variety stimulates. See explanation for K5.

CONCLUSION

Despite the wide-spread use of engagement strategies, teachers of quantitative courses continue to view their roles as purveying and demonstrating techniques and tools. Such a teacher-focused approach places the onus of student learning squarely on the shoulders of the instructor, rather than where it properly belongs, on the shoulders of students. Adult learning as described and promoted by Knowles begins with an entirely different set of assumptions about successful learning environment: students want to learn, students want to be actively involved in their learning, and students can take responsibility for their learning. Problem-based learning is an engagement strategy which promotes such a learning environment.

In this research, we examined the impact of changing the quantitative classroom learning environment from teacher focused to learner focused by using a problem-based approach. We then examined the perceptions of learners in the two environments with respect to the essential characteristics of successful learning described by Knowles (1980). Some of the results were as expected, others surprises. Changing the approach to teaching/facilitating quantitative analysis from

teacher focused to learner focused engaged students more, involved them emotionally in the learning process, and promoted a larger framework on which to draw. However, students either failed to recognize their own responsibilities in learning or failed to recognize that they had, in fact, taken over that responsibility from the instructor. Perhaps the role of the instructor is so ingrained in their educational histories that the cultural shift is difficult to make. Unfortunately, the long-term implications for such a scenario are adults will not appreciate the abilities they have to learn on their own.

REFERENCES

- Blaylock, B., and Hollandsworth, R. (Forthcoming). "Improving the Impact of Classroom Student Engagement on Out-of-Class Mental Focus in Quantitative Courses" *The Journal of Learning in Higher Education*
- Boud, D. (Ed.) (1985). *Problem-Based Learning for the Professions*, Sydney. HERDSA
- Boud, D. and Feletti, G. (Eds.) (1991). *The Challenge of Problem-Based Learning*. St Martin's Press, N. Y.
- Conner, M. L. "Andragogy and Pedagogy." *Ageless Learner*, 1997-2004. <http://agelesslearner.com/intros/andragogy.html>, Accessed 09/09/08.
- Hakeem, S.A. (2001). Effect of experiential learning in business statistics. *Journal of Education for Business*, 77(2), (95-98).
- Lovett, M.C., & Greenhouse, J.B. (2000). Applying cognitive theory to statistics instruction. *The American Statistician*, 54(3), 196-206.
- Philpot, J., & Peterson, C. (1998). Improving the investments or capital markets course with stock market specialist. *Financial Proactice & Education*, 8, 118-124.
- Polito, T., Kros, J., & Watson, K. (2004). Improving operations management concept recollection via the Zarco Experiential Learning activity. *Journal of Education for Business*, 79(5), (pp. 283-286).
- Knowles, M. S. (1970). *Modern practice of adult education: Andragogy versus pedagogy*. Chicago: Follett Publishing Company, Association Press.
- Knowles, M. (1980). *The Modern Practice of Adult Education*. Englewood Cliffs, NJ: Cambridge
- Knowles, M. (1984). *The adult learner: A neglected species*. (3rd ed.), Houston: Gulf Publishing.
- Knowles, M. (1990). *The Adult Learner: A Neglected Species*. 4th edition. Houston, TX: Gulf Publishing Co.
- Knowles, M. (1998). *The Making of an Adult Educator*. San Francisco, CA: Jossey-Bass.
- Knowles, M., Holton III, E. F., and R.A., Swanson (1998). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*. Houston, TX: Gulf Publishing Co.

Mayer, R.E. & Greeno, J.G. (1972). Structural differences between learning outcomes produced by different instructional methods. *Journal of Educational Psychology*, 63, 165-173.

Woods, D. (1985). Problem-based learning and problem-solving. In D. Boud (Ed.) *Problem-Based Learning for the Professions*, Sydney. HERDSA, 19-42.

IMPROVING GROUP DYNAMICS: CREATING A TEAM CHARTER

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ABSTRACT

The current article explores the details and rationale behind the first project assigned to students in a cohort-based, team oriented, MBA program. The article presents the model utilized to take the student through the development process. A completed student project is included to demonstrate the outcome of the project. This written agreement illustrates one group's abilities to create a work culture which facilitates more effective team performance. By having the group develop and codify the rules by which they agree to abide, norms evolve which become the framework for the decision making process within the group and provide the underpinnings for group cohesion.

The educational purpose of the project is to begin the process of developing leadership and team skills in order for students to be more effective both in dealing with their fellow students as well as in the workplace. The content of the Team Charter as well as the process for developing it consists of a structure which allows students to develop cognitive and practical skills for working in teams. These skills are developed among students with different backgrounds and different personalities, who are interdependent and share a common goal.

RETHINKING THE SYLLABUS: THE NEW GENERATION

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ABSTRACT

As professors we make the decisions about the entire content, structure, grading system of the classroom syllabus. This appears to be based upon the assumption that the “professor knows best.” Then when students stare into space in our classrooms, do not write down every word we speak, or even text during class, professors are frustrated and do not understand the students’ behavior.

We have known for some time that all of us learn in different ways (Bloom, 1956, Perry, 1968, and Kolb, 1971, 1984, 1991). This coupled with recent concerns about student learning and the “new student” of today is prompting a rethinking of the traditional model of the delivery of material. Tapscott (1998), states that “There is growing appreciation that the old approach [of didactic teaching] is ill-suited to the intellectual, social, motivational, and emotional needs of the new generation” (p. 131). Prensky’s (2001a) adds that “Our students have changed radically. Today’s students are no longer the people our educational system was designed to teach” [emphasis in original] (p. 1). While this may be causing more of what a recent study (Bennett, Maton, Kervin, 2007, p. 1) questions as a “moral panic,” we do know that students are part of a generation that has been exposed to technology during their entire academic lives.

In response to these concerns, this paper describes a new approach to the traditional syllabus. The authors have developed the learning outcomes for students, but are allowing students to choose assignments from various options. The number of points for each assignment is listed along with the number of points necessary to earn each grade. This is presently being tried in three upper division business courses, one of which is the capstone course. Results from student and faculty evaluations across the three courses will be evaluated to determine whether or not this is a useful approach for student learning.

In summary, this paper describes an attempt to change this model by allowing students the ability to make decisions about the way in which they earn their grades through choices of assignments. While this is in the beginning stages, the authors plan to compare what students agree to do with what they actually do, as well as students’ level of learning and evaluation.

CONGRUENCE BETWEEN ENTRY-LEVEL ACCOUNTANTS' REQUIRED COMPETENCIES AND ACCOUNTING TEXTBOOKS

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ABSTRACT

Demand for accounting professionals has increased dramatically in the wake of financial disasters at Enron, MCI WorldCom, Tyco, and Arthur Anderson. A survey conducted by the National Association of Colleges and Employers published in the March 1, 2005 issue of the Wall Street Journal, found that accounting is the number one major employers are demanding in 2005. Additionally, the Bureau of Labor Statistics has predicted nearly 400,000 new accounting jobs over the 10-year period ending in 2012.

While there appears to be consensus that the demand for accounting majors is on the rise, there is widespread concern that the gap between current accounting education and the needs of industry are widening. Industry leaders are encouraging accounting educators to adopt an accounting curriculum that is more relevant and that focuses on real world situations. Specifically, they are asking educators to provide a greater emphasis on higher-order cognitive skills, team work, use of technology, exposure to global and ethical issues, and communication skills.

Accounting textbooks have a major influence on most accounting courses and the nature and type of learning activities used to prepare entry-level accountants (Davidson & Baldwin, 2005). There is evidence in the accounting literature that indicates that accounting instructors rely heavily on textbooks and end-of-chapter (EOC) materials for homework assignments and coverage of course content. Accordingly, the cognitive skill set of an accounting student is largely dependent on the EOC material contained in the prescribed text.

The purpose of this research is to evaluate the EOC material in the leading text in each of the accounting disciplines on a variety of criteria that are important for success in the accounting profession. If instructors rely heavily on EOC materials from the text and the EOC materials mostly address lower-order thinking skills, there is substantial risk that mostly lower-level learning will occur.

Preliminary results indicate that the leading accounting texts tend to focus more on lower-order cognitive skills. Results also indicate that there is a significant difference in the coverage of cognitive skills across the different accounting disciplines. The results and implications of the findings are discussed.

THE IMPACT OF MARKET ORIENTATION TOWARD PARENTS ON OVERALL BUSINESS SCHOOL PERFORMANCE IN THE CASE OF AACSB - INTERNATIONAL MEMBER SCHOOLS

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ABSTRACT

The marketing literature (Barksdale and Darden 1971; Houston 1986; Kohli and Jaworski 1990; Narver and Slater 1990; Jaworski and Kohli 1993; Siguaw, Brown, and Widing 1994) provides considerable theoretical and empirical evidence indicating that greater levels of market orientation (the extent that an organization uses the marketing concept) result in a greater ability of the organization to achieve its objectives. The theory should have applications within higher education; Kotler and Levy (1969a, 1969b) argued decades ago, successfully, for broadening the scope of marketing (and the marketing concept) to include higher education as well as other nonbusiness organizations. Practitioners agree. The "Baldrige Education Criteria for Performance Excellence" (Baldrige National Quality Program 2005), AACSB International accreditation standards (2005), and various college guides emphasize the practical application of marketing to higher education, and indicate various aspects of market orientation as components of the criteria leading to performance excellence in higher education.

This manuscript reports the results of a national survey examining the impact of market orientation toward parents on overall performance within AACSB member schools. We reword Narver and Slater's (1990) "market orientation" scale and Jaworski and Kohli's (1993) "overall performance" and "top management emphasis" scales for use within the higher education context. We report mean levels of market orientation (customer orientation, competitor orientation, coordination, and overall) for each of four levels of performance. Additionally, we employ univariate analysis of variance, and then a series of t-tests to identify significant differences between performance levels for the three market orientation components. To help characterize the respondents that make up the four performance levels, we also report mean top management emphasis on market orientation toward parents, and student/faculty ratios for each performance level.

We outline the objectives of the study in terms of research questions, complete the analysis that addresses the questions, and present findings. Study limitations and future research directions are provided.

TEACHING MANAGEMENT BY TELLING STORIES

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ABSTRACT

Storytelling is a powerful and effective teaching tool, yet management professors often overlook its use. A good story can illustrate management principles such as decision-making, leadership, group dynamics, power and politics in a way that captures students' attention and enhances memory. Examples of management stories, how to locate sources of good management stories, and tips on storytelling are offered. The authors suggest storytelling is not only an effective teaching tool, but is an essential leadership skill that should be taught in our business schools.

ON RUBRICS AND WRITING: HELP FOR THE HARRIED B-SCHOOL PROFESSOR

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ABSTRACT

Demands from accrediting bodies, alumni, and employers are pressing business schools to find better ways of teaching written communication skills. Improving student writing involves pedagogical challenges not often covered in Ph.D. programs in business. Studies of what students actually do with written assignments suggest gaps between what professors intend and what is produced. Proposed solutions range from added emphasis on process to providing greater structure. This paper illustrates the use of a rubric - ITAC (Issues, Theory, Analysis and Conclusion) - that reconciles competing process-structure claims while providing a foundation for writing appropriate to a "live" business environment. Empirical evidence supports claims that this rubric improves overall written clarity. While potentially useful to anyone teaching a business topic, this approach may be especially useful for instructors entering a classroom without formal training in how to teach writing and analysis or for those who want to progress from a teacher-content to a learner-process pedagogy.

INTRODUCTION

This article presents a pedagogical framework for analysis and writing that addresses four concerns expressed by the business community, business school alumni, and accrediting bodies: enhancing students' higher order thinking skills, developing their ability to consider theory explicitly in the process of analysis, improving the clarity of their writing, and increasing their awareness of authentic business-genre writing. The system, identified by the acronym ITAC (Issues, Theory, Analysis, Conclusion), was initially created by synthesizing a logical predictive rubric with practitioner-based business writing strategy from a top consulting firm. It has been shown to be effective in addressing issues raised in studies of what students actually do with written assignments. It provides a comprehensive approach that entails the explicit application of theory and requires critical thinking processes such as identifying problems and weighing potential approaches to solution identification. It simplifies some writing decisions (like formatting), reducing the cognitive load of the process and thus providing a context for more creative thinking and writing on the issues, which, in turn, generally results in clearer writing. It assists the reader in following the thought process of the writer, step by step. It illuminates for the reader the logic employed in theory choice and application and assists both the writer and reader to assess the certitude of the conclusion. Finally, it provides a template and practice for writing authentic business genres. Because it has a standardized format, ITAC lends itself to standardized assessment across multiple disciplines.

ITAC

The primary motivation in developing the ITAC system was a focused attempt to engage students so that they would have no choice but to use theory explicitly in their analysis. It has evolved to address the four learning goals identified above: develop higher order thinking skills; develop skill in explicitly applying theory; improve written clarity; and provide a foundation for authentic business writing. The ITAC system is implemented through written assignments of various types - one to three page executive summaries, ten to twenty page case analyses, one page mini-case analyses, memos, strategic marketing plans, business letters, etc. Students also use it to prepare for and structure presentations. The following briefly describes each section of the basic ITAC system while addressing the thinking and writing development goals described earlier.

Issues

By explicitly calling for identification of issues, ITAC clarifies the expectation that students will identify problems, along with some recognition of uncertainty in the situation. Identification of issues opens the space for opportunities as well as problems and creates a goal-oriented inquiry. Part of the rhetorical problem space involves consideration of audience (issues are only issues if someone, the audience, is concerned) - a key step in developing mature, professional writing.

Theory

The Theory (to apply) portion of ITAC requires that students explicitly assess and choose theories for use in analysis. For example, imagine an OB scenario where a student is asked to take on the role of a manager who is confronted by a subordinate complaining about his pay. The student-as-manager might consider different responses depending on whether she thought the subordinate was operating consistent with expectancy theory, equity theory (internal or external), or some other motivational theory. To decide which theory should govern analysis and action, the student-as-manager must seek other information (is this really a pay issue, were promises made, does a peer make much more, etc.?) and weigh those in the context in which the subordinate is acting.

Analysis

For analysis, students run the details of a scenario, "the facts", through the theories they have chosen and explore the what-ifs and conclusions of each. The student is challenged to organize information thoughtfully to effectively acknowledge and address the complexity of the problem. Students begin to grasp that there might not be "a right answer" and instead begin to understand their role as synthesizers and generators of information and alternatives through choosing and applying theory. Therefore, explicitly using theories is the primary tool for this. This can also serve as a useful context for assessing students' foundation knowledge of theory. It both encourages and illustrates the student's ability to sift through and prioritize among competing facts and theories.

Conclusion

For conclusions, students make explicit choices of action, based on their analysis. We insist that their recommendations address the issues they have identified at the beginning. Writing

conclusions provides students with practice reviewing the issues and analysis. Furthermore, by making action (choice) a formal part of the analytic and writing structure, students have to make decisions. This provides a teaching context for how to weigh and prioritize. This step also provides an opportunity for advanced students to develop the skills of exploring limitations of choice and suggesting monitoring activities and possible contingencies.

ITAC AS FOUNDATION FOR AUTHENTIC COMMUNICATIONS

Students, employers and scholars of writing-across-the-curriculum criticize collegiate writing assignments for bearing no resemblance to "authentic communications" - the types of writing required in post-collegiate jobs. Re-labeling the ITAC headings makes several authentic business genres readily available to the student, including business proposals, research reports, marketing plans, project summaries, policy analyses and reports. For example, the headings "Our Understanding of Your Situation," "How We Will Approach the Issues," "Our Analysis," and "Recommendations" would substitute for the ITAC headings in a typical project report from a professional consulting firm.

APPLICATION AND RESULTS

The ITAC system was initially developed in the context of teaching an undergraduate capstone Business Policy course in a College of Business and Economics (CBE). Eventually, it became a standard for the entire CBE (used by about a third of the faculty). It has also been used in scattered implementation across disciplines (e.g., Biology, English, Sociology) at the campus where it was developed and among various business school professors on half a dozen different campuses.

Through a state mandated assessment of writing across the university curriculum we have three data points taken over five years. The data came from a university-wide assessment program. In the first year, before the development of the ITAC system less than 50% of the CBE students wrote at a satisfactory level as measured by a holistic assessment for writing; the CBE was assessed as the worst program (for writing) on campus. Two years later, in the year the ITAC system was piloted in the senior capstone Business Policy course, approximately 60% of the CBE students wrote at a satisfactory level, just below the campus average. In the fifth year of assessment, two years into wide-spread adoption of the system across the CBE, 74% of the CBE students wrote satisfactorily (well above the average across the university and one of the highest rated programs on campus). Across the five years of comparison (three assessments, separated by two years each), the university pass rates, excluding the CBE improvements, changed less than 5%. Other likely contributing factors to the CBE improvement (e.g., SAT scores, changes in core curriculum, high school class ranking, etc.) showed little or no change over this time period.

Faculty and students anecdotally reported high levels of satisfaction in improved written clarity, improvement in explicit and accurate application of theory, and more effective efforts at theory synthesis. The university's student survey process regularly produced favorable comments on the system, and alumni have regularly written letters sharing how they have successfully adapted the ITAC system to their workplace.

DISCUSSION

Students embraced the system (at least as much as students will embrace any writing system) as beneficial for them. After initial exposure, they had a reliable system for writing papers that all CBE faculty, even those who were not yet using the system, found acceptable. According to student focus groups, having a robust and transportable system reduced students' uncertainty in how to write papers; in particular, ITAC reduced the time and angst they expended in trying to decide how to start a paper or presentation. This let them focus on the content and on their development of analytic skills. End-of-course surveys suggested that students spent about the same amount of time working on written assignments before and after the use of ITAC, but with ITAC that work appeared to have been spent more productively on analysis and composing.

Our reflection on the process suggests it goes beyond satisfying students in that it creates a richer learning space. Because the prompts are broad and process-oriented, the system seems less vulnerable to the concerns expressed by process-oriented writing scholars. Students appear more likely to consider writing goals and the relationship between ideas or content and the possible reaction of the reader. They also show more creativity in devising solutions.

Challenges and Concerns

Implementing the standardized ITAC format presented some challenges. Initially, it was a tried as a single course experiment. Initial application by faculty other than the developer resulted in irregular and inconsistent use. That situation was corrected by developing faculty and student handbooks and providing an hour orientation/training for faculty. The biggest challenge for faculty and students has been distinguishing between the selection of theory and the process of analysis using theory. This can be addressed by alternating between complex and simple scenarios so that students (and faculty) learn to distinguish those steps. While there is a meaningful learning curve for faculty and students, mastery of ITAC holds the promise of time savings for both student and faculty (faculty report grading time is reduced to one-fifth to one-third of that required before adopting ITAC).

One curious artifact of the ITAC system (as documented in the cross-curriculum assessment discussed above) is that basic writing skills such as grammar, sentence structure, and word choice appear to improve with the ITAC process. While improved written clarity and shorter grading time are certainly welcome benefits, the greater advantage is the opportunity to focus much more on content and providing feedback on thinking skills and theory application.

CONCLUSION

The ITAC system for analysis and writing appears to provide a significant net benefit to faculty and students. It addresses four interconnected learning goals that have not been addressed effectively, as a set, by other pedagogic approaches we have seen. It provides a robust tool for scaffolding students to higher level thinking skills and forces students to use theory explicitly in their process of analysis. In developing higher level thinking skills, students become better users of management knowledge and, therefore, better problem solvers. It leads to improved written clarity

and gives students experience with - and a flexible approach to - writing in authentic business genres.

The ITAC system falls into the category of "Problem-Based Learning" pedagogic tools. While more structured than some approaches, it might be particularly useful to professors who want to move across the pedagogic continuum from faculty/content centered to learner/process centered. The time required to assess written material is a well-documented source of faculty resistance to giving written assignments. Implementing the ITAC system allows us to reduce the time necessary to evaluate student work productively, while at the same time systematically maximizing students' development as writers and thinkers.

REFERENCES

Citations omitted for space considerations. Full text with citations available on request.

EDUCATORS' ROLE IN PROMOTING ACADEMIC INTEGRITY

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INTRODUCTION

Research on academic cheating dates to the turn of the twentieth century with the earliest studies having been conducted in the fields of education and educational psychology (Campbell, 1931; Hartshorne and May, 1928). A 1941 study concluded that a fierce competition for grades feeds the engines of cheating (Drake). Since then it seems the problem has continued to grow, with students placing more emphasis on competition than on academic integrity (Nuss, 1984; Center For Academic Integrity, 2006). Adding to this is the much-written about decline in ethical standards among leaders in both the public and private sector. Enron, Tyco, and WorldComm are but a few contributors to the national conversation on this perceived decline in ethics. Robbins, et al. (1996) that the United States was suffering an ethics crisis.

STUDENT CHEATING

Ethics in the classroom has gained significant interest over the past several years with numerous studies demonstrating the pervasive nature of cheating among college students (Baird 1980; Haines, Diekhoff, LaBeff, and Clark 1986; Scanlon and Neumann 2002; McCabe, 2001). Since the early 1990s, the results of research in the area of collegiate cheating have raised concern among educators. In her New York Times article, Zernike (2002) quoted the Center for Academic Integrity's (CAI) statistics:

[A total of] 27 percent of students questioned during the 2001-2 academic year said that falsifying laboratory data happened "often or very often on campus. Forty-one percent said the same for plagiarism on written assignments, 30 percent for cheating during tests or exams, and 60 percent for collaborating on work when a professor has instructed students to work alone. Moreover 55 percent of the students said it was not serious cheating to get questions and answers from a student who had previously taken a test, and 45 percent said falsifying lab or research data did not fall into that category either (p. A10).

Student cheating takes on many different forms. According to Pincus and Schmelkin (2003) "one of the main issues that emerges from the literature relates to inconsistencies in the definition of academically dishonest behaviors and the lack of consensus and general understanding of

academic dishonesty among all members of the campus community," (Evans, McCarthy, & Hulsart, 2008).

Faculty members may classify plagiarism as an intentional or accidental act based on a variety of circumstances. The degree of seriousness as well as the criteria for determining academic dishonesty may vary significantly among university faculty (Evans, McCarthy, & Hulsart, 2008). In their 1994 report, Gehring and Pavela (1994) defined academic dishonesty as intentional acts.

LaBeff, Clark, Haines, and Dickhoff (1990) suggest students employ the concept of situational ethics to rationalize cheating. These authors conclude "that students hold qualified guidelines for behavior which are situationally determined. As such, the concept of situational ethics might well describe . . . college cheating [as] rules for behavior may not be considered rigid but depend on the circumstances involved" (p.191).

When questioned, students and faculty provide varying definitions of student cheating, but the most important definition of cheating is the one that students themselves hold. Students are likely to empathize with their colleagues who cheat thereby rendering the traditional definition of cheating anachronistic. Students respect the industriousness of their colleagues who cheat and may envy them as well. Modern cheating is far more tedious to define than cheating traditionally has been.

Stokes and Newstead (1995) state that while plagiarism and similar actions are universally accepted as cheating, such actions as neglecting to properly attribute sources in written work can be viewed from more than one perspective. Taking into account that students come from various cultural and educational backgrounds further blurs the definition of cheating. Students, both those who cheat and those who do not, perceive the lack of a tangible definition and the ethical and social implications of cheating as reasons why the practice has become a social norm, even if it is a social norm that is perceived by a faculty to be deceitful.

A cautionary word to faculty -- to define student cheating is to put a transitory label on a process that is as ever changing and evolutionary as education itself. Rigid definitions of student cheating may, in fact, exacerbate the detection and the ongoing effort to detect and eliminate the possibility of cheating in the academic setting.

Strom and Strom (2007) report that students who were asked to identify situations that constitute cheating, conditions that might legitimize dishonest behavior, characteristics of cheaters, frequency of involvement in cheating, or motives for misconduct responded: "I need good grades to get into college." "There is not enough time to do the work." "Everyone else is cheating." "This course is not important to me." "Other." What is disconcerting in this response is the "other". For this category, students often mentioned "adults teach this kind of behavior by example" (p. 43).

While faculty fixates on the academic misdeeds of students, we would do well to look within to our own transgressions. In October 2003, the U.S. Naval Academy demoted Brian Van DeMark, a member of the history faculty for plagiarism (Steinberg, 2003). In the fall of 2002, the president of Hamilton College, Eugene M. Tobin, resigned after plagiarizing a speech from an Amazon.com book review (Lewin, 2002). Richard L. Judd, president of Central Connecticut State University, retired after he was found to have plagiarized material from the New York Times and other sources in 2004. Bartlett and Smallwood (2004) report the practice of plagiarism among faculty is widespread.

CREATING AN ETHICAL CLASSROOM CLIMATE

Climate is described as measurable dimensions of an environment. Figure one below list factors that influence classroom climate. Factors that determine climate include leadership, structure, historical background, accountability, behavioral expectations, communication and trust (Verbeke et. al., 1998). Within an academic course, whether a traditional classroom setting or online, these factors are easily translated. Direct leadership is the faculty member teaching the course. Structure refers to the course setup to include lecture delivery, assessments, assignments and learning objectives. Historical background involves the personal values and ethical systems of individuals within the classroom. Accountability refers to adhering to standards of academic integrity and the courage to confront academic dishonesty. Behavioral expectations for academic integrity must be explicitly stated by the faculty. Communication is important for reinforcing acceptable behaviors with direct, constructive and timely feedback. Finally, trust reflects feelings of mutual respect and support in an ethical classroom climate.

We believe that the most important determinate of an ethical classroom climate is the day-to-day style of direct leadership. Faculty members play an important role in the process of creating and maintaining academic integrity. Faculty members influence expectations and behaviors of students within their classes. For this reason, it is important for a faculty member to assess one's own level of integrity. Kouzes and Posner (1993) pose four questions to measure one's own trustworthiness as a leader:

- 1) Is my behavior predictable or erratic?
- 2) Do I communicate clearly or carelessly?
- 3) Do I treat promises seriously or lightly?
- 4) Am I forthright or dishonest?

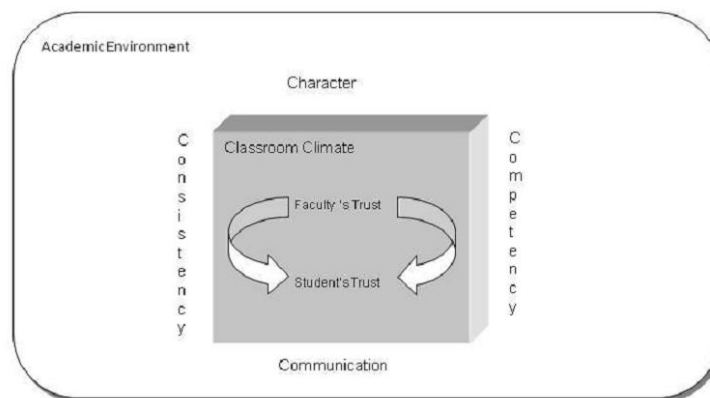
Leadership within an organization includes direct leadership (faculty) and top leadership (the University). Distinguishing between these specific levels of leadership has been found to affect the outcomes of empirical studies of leadership and trust (Dirks & Ferrin, 2002). In addition, McCarthy (2006) found that direct leaders play an important role in facilitating top leadership. Faculty members act as a medium between the University leadership and students for promoting academic integrity.

Trust is a multidimensional concept that includes individuals within an organization as well as the nature of outcomes and the consequences of those outcomes. Trust in leadership is not only an attribute of the individual leader or collective leadership it is also a product of the outcomes of leadership actions (Galford & Drapeau, 2002). Below (figure 2) is a model of organizational trust that displays this concept as an essential element of the organizational system. A system is a collection of interdependent components acting together toward a common goal (Ronen & Pass, 2008). A system has boundaries that partition it from the environment in which it operates. In Figure 2, the Ethical Classroom Model, the trust climate operates within the larger university environment. Within this trust climate is the reciprocal trust relationship between faculty and students.

Reina & Reina (2006) describe the "capacity for trust" as a result of three types of trust: competence trust, contractual trust and communication trust. Competence trust relates to individuals' abilities to complete work tasks. Contractual trust, as called "trust of character", refers to individuals' attributes such as honesty, consistency, and fairness. Communication trust refers to the dissemination and accuracy of information. Reina & Reina (2006) developed a model of trust capacity based on these three elements.

Classroom climates are embedded within the larger university environment. Within the classroom climate there is a cyclical trust process being created by faculty and students. This cyclical process is bounded by the individuals' (faculty and students) character, consistency of behavior, competency and communication. It is important to note that consistency is separated in this model from character because individuals of unethical character may also be consistent in their behavior. Consistent unethical behavior can have a detrimental impact on classroom climate.

Figure 2: A Model of Ethical Classroom Climate



Course structure refers to the arrangement of the coursework and is an equally powerful determinant of ethical classroom climate. A paradigm shift in instructional and assessment pedagogy is needed. Creating a classroom environment where there are few cheating opportunities is one possible solution for addressing academic dishonesty. Educators can use reasons that students cheat to raise integrity in the classroom. Students are often frustrated with assignments and assessments that require memorization and regurgitation (Strom & Strom, 2007). This is one reason students give to justify cheating (Genereux & McLeod, 1995) and could be circumvented by involving the student in assignment and assessment creation. Gardner (1998) argues that "the relationship between [students'] active involvement and effective learning is so strong that 'the effectiveness of any educational policy or practice is directly related to the capacity of that policy to increase involvement in learning,'" (p. 74).

Another contributing factor to academic dishonesty is related to social networks of students (Hutton, 2006). Relationships established among students in teams and cohorts provide opportunities for unethical behavior (Hutton, 2006, p. 173). These same social networks can be used

to deter academic dishonesty, since student teams frequently are used in business education for completing projects (Bacon et al, 1999). Allowing student teams to collaborate on instructional methods and assessments, gives them ownership of the process (Scurrah, 2001); which may in turn lessen their desire to engage in academic dishonesty.

CONCLUSIONS

Previous suggestions for dealing with student cheating have either focused on institutional policies such as codes of conduct, preventing cheating through more controlled teaching environments, and educating students on the policies and consequences of academic dishonesty. While individual faculty members do not have direct control over institutional policy, they can control the learning environment. Faculty can enhance the classroom or online course climate by explicitly stating expectations for academic integrity. The ethical climate of the classroom can be reinforced by using preventative measures regarding student cheating such as vigilance in monitoring exams and checking for plagiarism (McCabe & Pavela, 2004). Being consistent and following through with consequences has been found to decrease instances of academic dishonesty. Faculty must also redesign assignments and assessments in an effort to deter academic dishonesty.

A current trend in higher education is to strengthen social networks to improve student retention. These social networks have, in turn, been cited as a factor in the increase in student cheating. This does not infer it is necessary to discourage collaboration and student networking in the classroom but suggests a paradigm shift in instructional and assessment pedagogy is needed. Creating a learning environment where there are few cheating opportunities is the best solution for addressing this problem. Methods advocated for creating such an environment include collaborative assessments, open book tests, and in-class writing and research assignments uniquely related to individual students. Moving away from assessments that encourage rote memorization and regurgitation will not only decrease opportunities for cheating but will also encourage student creativity and higher-order thinking (Deakin et al. 2007).

Faculty must create an ethical classroom climate which can be accomplished with a twofold approach: first, individual faculty members must model integrity as well as communicate what constitutes cheating and the consequences of academic dishonesty, and second, opportunities for student cheating can be deterred through the redesign of the learning environment to include instruction and assessment pedagogy. The prescriptions for reducing academic dishonesty must be feasible for individual faculty members. Changing what instructors immediately control is the first step in lowering instances of academic dishonesty.

REFERENCES

- D.R., Stewart, K.A. and Silver, W.S. (1999). Lessons from the best and worst student. teams experiences: How a teacher can make the difference. *Journal of Management Education*, 23, 467-488.
- Bartlett, T., & Smallwood, S. (2004, December 17). Four academic plagiarists you've never heard of: How many more are out there? *Chronicle of Higher Education*. Retrieved October 17, 2007, from <http://chronicle.com/prm/weekly/v51/i17/17a00802.htm>.

- Campbell, W. (1931). Student honesty as revealed by reporting of teacher's errors in grading. *School and Society*, 33, 97-100.
- Drake, C. A. (1941). Why students cheat. *Journal of Higher Education* 12, 41820.
- Evans, S., & Hulsart, R., & McCarthy, V. (2008). Mission Possible: Curbing Student Cheating. Proceedings from *North American Management Society 2008 Conference Focus on Change: Succeeding in a Global Environment April 2 - 4, 200. Drake Hotel - Chicago, IL.*
- Galford, R. & Drapeau, A.S. (2002). *The Trusted Leader*. New York, NY: Simon & Schuster.
- Haines, V., Dickhoff, G., LaBeff, E. & Clark, R. (1986). College cheating: Immaturity, lack of communication, and the neutralizing attitude. *Research in Higher Education*, 25, 342-354.
- Hartshorne, H. and May, M. (1928). *Studies in deceit*. New York, NY: MacMillian.
- Hutton, P. (2006). Understanding student cheating and what educators can do about it. *College Teaching*, 54, 171-176.
- Josephson Institute of Ethics (2002). The ethics of American Youth. Retrieved October 17, 2007 from, <http://www.josephsoninstitute.org/98/survey/98survey.htm>.
- Kouzes, J.S. & Posner, B.Z. (1993). *Credibility: Why leaders gain and lose it, why people demand it*. San Francisco, CA: Jossey-Bass, Inc.
- LaBeff, E., Clark, R., Haines, V. and G. Diekhoff (1990). Situational ethics and college student cheating. *Sociological Inquiry*, 60, p. 190-198.
- Lewin, T. (2002, October 3). Hamilton College president resigns over speech. *The New York Times*, p. B10.
- McCabe, D. (2001). Cheating: Why students do it and how we can help them stop. *American Educator*. Winter, 38-43.
- McCabe, D. and Trevino, L. (1993). Academic dishonesty: Honor codes and other contextual influences. *Journal of Higher Education*. 64, 522-538.
- McCarthy, V. M. (2006, Apr) "Facilitative Leadership: A Study of Federal Agency Supervisors" Paper presented at the annual meeting of the *The Midwest Political Science Association, Palmer House Hilton, Chicago, Illinois* Online <PDF> Retrieved June 26, 2008 from http://www.allacademic.com/meta/p137946_index.html.
- Nuss, E. (1984). Academic integrity: Comparing faculty and student attitudes. *Improving College and University Teaching*, 32, 140-144.
- Peterson, C. and Seligman, M. (2004). *Character strengths and virtues: A handbook and classification*. New York, NY: Oxford University Press and the American Psychological Association.
- Reina, D.S. & Reina, M.L. (2008) *Trust and betrayal in the workplace: Building effective relationships in your organization*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Robbins, S. & Coulter, M. (2005). *Management, 8th Edition*. Englewood Cliffs: Prentice Hall.
- Ronen, B. & Pass, S. (2008) *Focused Operations Management*. New Jersey: John Wiley & Sons, Inc.

- Scanlon, P. & Neumann, D. (2002). Internet plagiarism among college students. *Journal of College Student Development, 43*, 374-385.
- Sclafani, J. (2004). *The educated parent: recent trends in raising children*. Westport, CT: Greenwood.
- Scurrah, W. L. (2001). Enclosure and the commons of the mind. Unpublished paper presented at the annual meeting of College Composition and Communication. Denver, CO.
- Smythe, M. & Davis, J. (2004). Perceptions of dishonesty among two-year college students: Academic versus business situations. *Journal of Business Ethics, 51*, 63-73.
- Spears, L.C. (1998), *Insights on Leadership: Serviced, Stewardship, Spirit, and Servant-Leadership*. New York: John Wiley & Sons.
- Steinberg, J. (2003, October 29). Naval Academy demotes professor over work. *The New York Times*, p. A21.
- Stokes, A. and Newstead, S. (1995, June). Studies of undergraduate cheating: Who does and why? *Studies in Higher Education, 20*(2), 159-72.
- Strom, P.S. & Strom, R.D. (2007). Curbing cheating, raising integrity. *The Educational Forum*. Retrieved September 5, 2007, from www.eddigest.com.
- Strom, P. and Strom, R. (2007, Winter). Cheating in middle school and high school. *Forum, 71*, 105.
- Verbeke, W., Volgering, M., & Hessels, M. (1998). Exploring the Conceptual Expansion within the Field of Organizational Behaviour: Organizational Climate and Organizational Culture. *Journal of Management Studies, 35*(3), 303.
- Wexler, R. (1993, June). Update: Joseph and Edna Josephson Institute of Ethics. *Signs of the Times, 6*.

VIRTUALLY PRESENT: INTERACTING IN A VIRTUAL WORLD

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ABSTRACT

Immersive teaching technologies can provide an interactive and engaging environment within which students can develop problem solving skills. Virtual environments which simulate real-life activities add another dimension to the teaching-learning experience. Second Life is a virtual world where users interact through avatars (personal representations of themselves) and create content that they own. In this paper, the author discusses uses of Second Life to enhance education and learning.

INTRODUCTION

Massive multiplayer online environments attract millions of people to play games in an interactive, fantasy environment. (Castronova 2007) Many of these individuals spend hours learning how to play the games and how to complete levels of achievement and work toward more difficult objectives. Something in the game compels these players to remain and to continue their efforts even if they fail on their first attempts. (Corti 2006; Castronova 2007) Virtual environments can take advantage of the compelling nature of games to guide and enhance student learning by placing learners in simulations that require application of targeted concepts and skills. Second Life is one such virtual environment.(Second Life 2008) Second Life is a virtual environment in which individuals interact through avatars (representations of themselves) (Grey Fox Works 2006-2007) and as avatars individuals can communicate, collaborate and create items which the creators own. Educational institutions have developed a large number of simulations designed to encourage student learning through problem solving, experiential activities and collaboration. In this paper, this author discussed the learning potential of activities in Second Life and her experiences.

WHAT IS SECOND LIFE®?

Second Life is a three-dimensional virtual environment that allows multiple users to interact with each other through user-created avatars.(Jones 2007) Although the interface is similar to that found in 3D gaming, Second Life has no pre-established goals or objectives that the user is to accomplish, i.e. it has no game-created objectives to achieve or to win. Second Life also has no pre-established buildings or other creations, other than those "built" by Second Life creators, Linden Labs. Linden Labs is a San Francisco-based company started in 1999 by CEO Philip Rosedale (Linden Research 2008). In Second Life, activities, buildings, interactions and objects are established and maintained by the avatars (residents) who download the free software onto their computers. After download and installation, residents use the software as a portal to enter Second

Life. The residents build, own and trade items in Second Life as permitted by the Second Life Community Rules (Linden Research 2008). Residents can purchase land ("islands" which represent server space) from Linden Labs and can build items on that land. They can make that land public or private (Linden Research 2008).

General Activities on Second Life



Users may use Second Life to create businesses and to trade virtual items using the Second Life medium of exchange, Linden Dollars, which can be exchanged, traded and purchased using American dollars. Businesses as diverse as Dell, Sun, Nissan, Starwood Hotels, American Apparel and IBM have created a presence in Second Life (Hamm 2006; Zimmer 2007; Collins 2008). IBM uses Second Life for internal collaboration in addition to virtual marketing. Other organizations have used Second Life to test first responders, to simulate the mind of a schizophrenic so that health workers can obtain a perspective on schizophrenia, and to create patient support groups (Stein 2007). In August 2007, the television show CSI used Second Life in an episode and one artist held an initial album release using Second Life (Reuters 2007).

Educational Users of Second Life

Educational institutions have used Second Life for a variety of purposes. More than 300 educational institutions have established a presence in Second Life (http://simteach.com/wiki/index.php?title=Institutions_and_Organizations_in_SL#UNIVERSITIES.2C_COLLEGES_26_SCHOOLS). Educational institutions' level of involvement in Second Life varies greatly. Most educational institutions present in Second Life have created a group, an island, or both. Education islands created in Second Life normally include a logo or billboards that identify the institution plus a welcome message. The welcome message is typically delivered via a "notecard". A notecard is the equivalent of a piece of paper that is delivered to the viewer and which the viewer can store in the viewer's folder to read at any time while in Second Life. In addition to a welcome, some institutions have created virtual buildings, classrooms, auditorium spaces and places for social networking (e.g. student lounges). Other institutions, such as Harvard Law school and the University of Florida, offer classes based partially or wholly in Second Life.

According to Jennings and Collins, educational institutions' uses can be placed in one of two categories: operative virtual campuses and reflective virtual campuses (Jennings and Collins, 2008). Institutions that create operative virtual campuses design and establish those campuses to conduct educational business in the virtual world and do not necessarily copy the University's space in the real world. Development of such operational virtual campuses are equivalent to institutions' development of online campuses—how the campus is designed is determined by the purpose to be accomplished. Those spaces are designed to allow the University's mission to be accomplished in the virtual world. Institutions that operate reflective virtual campuses create buildings that mirror those found in the real world—thus virtual world campuses "look" like the real campus. Generally, the virtual world campus is designed as a supplement to the traditional campus. The potential for Second Life extends beyond placing a campus on Second Life. Immersive experiences can be

created in Second Life that could not be created in a traditional campus environment because of the expense, lack of time and risks.

In Second Life, Harvard University conducts law school classes, <http://blogs.law.harvard.edu/cyberone/>, biomedical research lab where people can view scientific experiments, a lab that mimics the mind of a schizophrenic, various museums and builds, including St. Francis de Assisi and an underwater Atlantis and a bar association that has a speaker series and is developing a process to verify that someone is a member of a bar. These experiences have value in that they give students opportunities to engage in experiences that they might not be able to engage in in their traditional classrooms.

EXPERIENTIAL LEARNING AND EDUCATION

David Kolb wrote a book titled, *Experiential Learning: Experience as the Source of Learning and Development*, (Kolb 1984) Kolb developed a cycle of learning model and a Learning Style Inventory based on his primary thesis: that people learn through experience. Kolb's model and inventory are frequently used to determine stages of learning and individual learning preferences. The basis of Kolb's model of learning is that concrete experiences are at the core of beginning learning. Although many educational practices are based on teaching abstract learning first (Johns 2001), an individual typically begins early learning experiences through practice, not through learning in theory first. Thus, we learn the taste of food through tasting it, rather than through a theoretical discussion of quality or types of foods.

Kolb's cycle of learning places learning in two broad categories ranging from concrete experience through abstract concepts. His model of learning posits that we learn from active experimentation that leads to reflective observation. (Huitt 2003) An individual only processes information through making it personally meaningful first. Otherwise, we ignore the information as irrelevant. (Johns 2001). As he developed his theory, Kolb experimented with different methods of teaching, ultimately creating his Learning Style Inventory that describes individuals learning styles. (Johns 2001). Varying teaching methods help learners acquire new knowledge. In addition, teaching methods that do not necessarily fit the individual's learning style can be used to help stretch the individual's cognitive skills.

According to constructivist learning theory, people learn through receiving information and creating relationships between the new information and the information that the individual has previously acquired. This theory of learning, variously characterized as "generative" or "constructive", posits that in order for someone to learn new material one must create relationships between the new information and earlier knowledge. According to Marton and Saljo's study on learning, there are two basic approaches to learning that can be broadly categorized as either deep learning or surface learning (Marton 1976). Surface learning occurs when learners spend time memorizing information in order to do well on a test or to otherwise temporarily use the information until it is no longer needed for the immediate purpose. Most educators seek to encourage deep learning where the learner incorporates the new information in a way that the learner can apply it to different situations and apply it to unfamiliar contexts.

Constructivist educational philosophy provides additional support for the concept of deep learning. Under the constructivist educational philosophy, knowledge does not exist independently

of the learner. Instead, people bring their own knowledge, skills, and background to bear when they solve problems. New experiences add to and may cause learners to confirm, revise or discard previous knowledge. In order to successfully problem solve, then, one must deconstruct what has been learned (i.e. break it down into its various components) and then reconstruct it to incorporate the new knowledge. Students learn by actively creating knowledge through experimentation, exploration, manipulation and testing. This constructivist educational philosophy proposes that learning is learner-centered and contextual. The instructor's role under this theory is that of the "guide on the side" (Carey 1993)

Social constructivists propose that learning occurs as part of a social process and is not solely internal (or external). They argue that learning occurs as people interact with each other and "is manifest in the intellectual aptitude, cognitive strategies, motor skills, and dispositions people develop while working toward a goal within a community of others (Bronack 2006)." A strong learning environment is one that encourages involvement in a learning community where collaboration leads to achievement of learning outcomes.

IMMERSIVE ENVIRONMENTS AND LEGAL EDUCATION

Immersive learning involves active learning through submersing the learner in the learning environment. Immersive learning works through encouraging students to suspend their connection with their current physical presence and become absorbed in the experience. According to one Harvard psychologist, 3-D virtual environments "creat[e] the ultimate theater of the mind" by tapping into the "capacity of the pre-frontal lobe to allow us to experience things mentally before we try them out in the real world" (Zimmer 2007). Mental pre-experience, which is equivalent to rehearsing before a performance, can be a valuable tool that allows students to engage in activities in a relatively safe, risk free environment. This pre-experience can help students develop their decision-making and problem solving skills.

In virtual environments like Second Life, instructors can develop projects that encourage learners to collaborate on many levels (Roussos 1999). Learners may collaborate to develop a clear understanding of the project requirements. Learners may collaborate to develop graphical representations of concepts and to achieve project outcomes. Learners can maintain a virtual presence with each other even though they are geographically separated. This virtual environment can encourage a different kind of collaboration that can lead to achievement of different learning outcomes. Reflection on the outcomes achieved and on the process of achieving the outcomes can enhance the learning experience.

Virtual environments are not the best tool for all educational objectives. Although use of technology can be "fun" just for fun's sake, use of technology in education must be designed to achieve learning goals. Virtual environments should be used to solve difficult learning problems defined objectives that cannot be solved using traditional teaching methods, and there should be some value added when virtual environments are used in education.

Problem solving activities which can be enhanced using virtual environment, are critical for managers. Courses in the legal environment of business usually help students develop those skills through assisting students to develop abilities in analyzing court cases. Students must read, court cases and analyze the legal reasoning judges use to apply the law to rule on a particular situation.

Students perform this analysis by identifying key components of a decision: identifying key facts, issues, applicable laws and regulations, policies supporting or underlying the laws and regulations and the court's reasoning. As students practice this analysis, they improve their ability to be able to distinguish facts from inferences, explain the law and the policies underlying the laws and examine how judges interpret the laws.

Although traditional methods of case analysis provide good practice for students to learn and understand legal analysis, these methods do not necessarily provide students with skills to develop strategies to identify and manage legal issues in real situations where the legal issues aren't carefully identified for the learners. In appellate court opinions, the legal issues are clearly defined. In daily business operations, legal issues are intertwined with functional areas of business such as marketing, finance and other areas. In addition, court rulings result in a "winner" and a "loser" in the case. In the U.S. adversarial system, the winner in a court case prevails at the expense of the loser. And the parties do not acquire skills to solve the problems themselves when they go to court.

Several of the learning objectives of this author's legal environment courses are to:

- Explain & apply ethical theories to reach a conclusion on the ethical bases of conduct
- Apply legal analysis and reasoning to business scenarios and formulate conclusions on how the law could be applied to resolve those scenarios
- Distinguish statements of fact, inferences and opinions.
- Communicate clearly orally and in writing
- Contribute meaningfully to online and in class discussions.

The course objectives include acquisition of substantive knowledge about the law and the legal system and improvement of analytical and critical thinking skills. Accomplishing these objectives can help prepare students for lifelong learning in their careers and as citizens. The online dispute resolution center was developed to help students accomplish some of these goals in an immersive environment designed to encourage active and deep learning through role playing and to identify means of managing disputes through negotiation, mediation and arbitration without resorting to the litigation. These objectives may be better accomplished through a virtual environment like Second Life. Also, as businesses continue their involvement with using technology in a shrinking world, the ability to resolve disputes using an online interface may be very valuable. Students will begin to learn how to communicate with the usual verbal and visual cues that characterize person to person issue resolution.

In Fall 2008, students in the Regulatory and Ethical Environment of Business were required to conduct several discussions of legal issues on Second Life. They required to download the software from Second Life and create avatars. Afterwards, students discussed their experiences using an online discussion board (threaded discussion). The students were asked to discuss 3 questions:

- What are the issues raised in the [supplemental readings]?
- Is the legal environment in virtual worlds different than the legal environment in real life?
- How does that have an impact on business conduct? Explain.

Should businesses consider virtual worlds for collaboration? Are there other issues that should be considered before moving into virtual environments? What steps and/or management strategies could businesses involved in virtual environments take to minimize their legal risks?

Students engaged in an in depth discussion of the issues raised by the questions. More specifically, students discussed the following:

Difference between virtual and real world

Whether there should be a legal system to deal with issues in SL/virtual worlds

Suggestions include a separate system; allowing individuals to choose the applicable legal system and basing it on the country of citizenship of the person on SL

Identification of legal issues for businesses that meet or collaborate in SL

CONCLUSION

According to The New Media Consortium's 2008 Horizon Report, an annual report on projected trends in the use of technology in education, computing and meeting in virtual worlds, social collaboration and user-created content are key trends in teaching and learning with technology. (New Media Consortium 2008) Introducing students to a virtual environment like Second Life can help encourage active engagement in learning, enhance development of critical thinking skills, use benefits of experiential learning and prepare students for a new technology.

REFERENCES

- Bronack, S., Riedl, Richard, Tashner, John (2006). "Learning in the zone: A social constructivist framework for distance education in a 3-dimensional virtual world." Interactive Learning Environments 14(3): 14.
- Carey, D. M. (1993). "Teachers Roles and Technology Integration: Moving From Teacher as Director to Teacher as Facilitator." Computers in the Schools 9(2): 13.
- Castronova, E. (2007). Exodus to the Virtual World: How Online Fun Is Changing Reality New York, New York, Palgrave Macmillan.
- Collins, N. J. a. C. (2008). "Virtual or Virtually U: Educational Institutions in Second Life." INTERNATIONAL JOURNAL OF SOCIAL SCIENCES 2: 7.
- Corti, K. (2006). Games Based Learning; A Serious Business Application, PIXELearning: 20.
- Grey Fox Works. (2006-2007). Retrieved September 1, 2008, from www.greyfoxwebworks.com/webterms.html.
- Hamm, S. (2006). Palmisano Gets a Second Life; IBM is embracing the virtual world of avatars--and other big companies are close behind. Business Week. 4010 47.
- Huitt, W. (2003). "Constructivism. Educational Psychology Interactive." Retrieved April 2, 2008, from <http://chiron.valdosta.edu/whuitt/col/cogsys/construct.html>.

- Johns, K. R. (2001). *Going Around the Circle Again: Exploring Kolb's Theory of Growth and Development*. Reno, NV, National Council of Juvenile and Family Court Judges: 22.
- Jones, I. M. (2007). Teaching on the MUVE: Legal Issues for Businesses Marketing in Second Life. Campus Technology, San Francisco, CA, Campust.
- Kolb, D. A. (1984). *Experiential Learning: Experience as the Course of Learning and Development*. The process of Experiential Learning. Englewood Cliffs, New Jersey 07632, Prentice-Hall: 27.
- Linden Research. (2008). "Community Standards." Retrieved April 9, 2008, from <http://secondlife.com/corporate/cs.php>.
- Linden Research. (2008). "The Company." Retrieved April 9, 2008, from <http://lindenlab.com/about>.
- Linden Research. (2008). "Land: Get Your Land." Retrieved April 9, 2008, from <http://secondlife.com/community/land-getyours.php>.
- Marton, F., and Saljo R. (1976). "On Qualitative Differences in Learning — 1: Outcome and Process." British Journal of Educational Psychology 46: 8.
- New Media Consortium (2008) "The Horizon Report 2008 Edition." **Volume**, 36 DOI:
- Reuters (2007). Companies Rethinking What Virtual Worlds Mean. PC Magazine.
- Roussos, M., Johnson, Andrew, Moher, Thomas, Leigh, Jason, Vasilakis, Christina, Barnes, Craig (1999). "Learning and Building Together in an Immersive Virtual World." Presence: Teleoperators & Virtual Environments 8(3): 17.
- Second Life. (2008). "How Organizations Use the Platform." Retrieved September 1, 2008, from <http://secondlifegrid.net/about/how>.
- Stein, R. (2007). Real Hope in a Virtual World; Online Identities Leave Limitations Behind. The Washington Post.
- Zimmer, L. (2007). How Viable Is Virtual Commerce?: Businesses that understand the potential of Second Life are finding real-world commercial opportunities in the virtual space. OPTIMIZE.

REVITALIZING RETENTION EFFORTS FOR AFRICAN-AMERICAN COLLEGE STUDENTS AT PREDOMINATELY WHITE INSTITUTIONS

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ABSTRACT

Higher Education Institutions are seeing increased retention rates among African-American college students at predominantly white institutions (PWIs). Institutional barriers such as unwelcoming campus climates, racial stereotypes, and faculty relationships have raised concerns as viable factors as to why the attrition rate for African-American students at PWIs is still on the rise. Ninety African-American college students participated in the Culture Attitude and Climate (CACS) survey. This study revealed a direct relationship between campus climate, racial stereotypes, and faculty relationships and student retention in African-American students attending a predominantly white institution. There was a statistically positive correlation between the perceptions of African-American students pertaining to student retention and campus climate, racial stereotypes, and faculty relationships at a predominantly white institution. African-American students want to be a part of an inclusive academic body that promotes diversity and student success.

INTRODUCTION

The recruitment and retention of minority students remains one of higher education's most pressing issues. As a result of this growing problem, conference leaders and educational stakeholders will receive detailed information on how to revitalize and reform educational diversity transformational leadership. Seventy percent of African-Americans who attended Predominantly White Institutions (PWIs) did not complete their baccalaureate education, compared to the 20% of African-Americans who attended historically Black Colleges and Universities (HBCUs) (Davis et al., 2004). The Desegregation Act of 1964 perpetuated an ideology of equal representation and open-door admission for people of color into any federally funded public institution. However, the results of that effort fell short of proposed or projected estimates (Davis et al.). Research suggested that African-American students had not fared well in PWIs. These students had lower persistence rates, lower academic achievement levels, less likelihood of enrollment in advanced degree programs, poorer overall psychosocial adjustment, and lower graduation and occupational earnings (Allen, Epps, & Haniff, 1991). In addition, African-American students were more likely to be the target of direct and indirect discrimination (Suarez-Balcazar, Orellana-Damacela, Portillo, Rowen, & Andrews-Guillen, 2003).

Since public education integration, PWIs attracted African-American students; however, their retention and graduation success rates continued to be problematic (Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999; Davis et al., 2004; Farley, 2002; Holmes, Ebbers, Robinson, & Mugenda, 2001; Lewis, Chesler, & Forman, 2000; Schwitzer, Griffen, Ancis, & Thomas, 1999; Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan, & Andrews-Gullien, 2000). Colleges and universities with fewer minority students treat these students as symbols. African-American students might experience isolation on campus rather than living as individuals sending a message, which suggested that maintaining diversity was not an institutional priority (Braddock II, 1981; Carter, 1999). Braddock (1981) noted that PWIs often promoted hidden agendas about curriculum regarding minority students (African-Americans, in particular), which were: (a) internal and external environmental factors of alienation, (b) anxiety driven behaviors, such as test anxiety, (c) social adjustment problems, and (d) overall acceptance. Therefore, these fundamental barriers promoted low graduation rates among African-American students. Because of the difficulties in social and academic adjustments at PWIs, the probability of successful completion for many African-American students was slight (Braddock).

In contrast, HBCUs facilitated the academic development and socialization of African-American students, including their participation with peers, faculty and staff, engagement in the life of the campus, and feelings of academic success (Carter, 1999). Alienation, racially stereotypical behaviors of peers and faculty, and unwelcoming social climates do not promote graduation success of African-Americans seeking undergraduate degrees at PWIs. Braddock II (1981) posited that African-American students attending PWIs dropped out at a much higher rate than their white classmates and were less likely to complete four-year degree programs in four years than their African-American counterparts attending HBCUs. Carter (1999) noted that race, ethnicity and socioeconomic factors affected student retention reflected by the low completion rates of African-American students at PWIs. Furr and Elling (2002) claimed the educational disparity between graduation rates of African-American students and white students continued to present challenges in higher education.

Significance to Leadership

All cultures coexist by collaborating, sharing, exchanging ideologies and theoretical perspectives, which represents the diversity that academia strives to achieve. Desegregation promoted progress toward a universal picture of diversity, but individual uniqueness and color still presented a problem for higher education (Hallenger, 2003). The recruitment, retention, and graduation of minority students were valuable concerns facing higher education and remained one of higher education's most pressing issues, as fewer minority students persevered to graduation (Holmes et al., 2001, p. 42). Higher education learning communities lack the diversity needed to infuse a multicultural society. Institutional barriers hindered diverse learning communities.

As higher education seeks to diversify its student population, the current study aids the reform process by presenting quantitative data to enhance, redirect, and shape policies of colleges and universities in achieving diversity (Brotherton, 2001). Educational leaders, college presidents, and administrators can utilize the research in creating change at their respective institutions. Implementing policies and programs to increase student retention was the key to building learning

communities that reflect a diverse society (Braddock, 1981). Integration of diverse components, such as cultural events, mentoring programs, and professional development workshops, builds a framework for transformational leadership, bridges gaps that encompass the whole person rather than partially connecting individuals and cultures and creates changes to increase minority retention. The cornerstone of education is diversity and the equality of all involved in the educational process (Hallenger, 2003) and change builds through transformational leadership. Transformational leadership permits educational institutions to enact institutional change through a shared and authentic vision; it creates a learning environment that engages a shared community.

The Problem

Desegregation of public institutions engendered enormous growth of African-American students at predominantly white higher education institutions (Farley, 2002). However, low retention among African-American students continued to increase. "African-American students experience exclusion, racial discrimination, and alienation on predominantly white campuses" (Carter, 1999, p. 20), as opposed to HBCUs. Promoting diversity and student success is important. By 2050, minorities will be the new majority, thus affecting economic conditions, societal living, and employment (U.S. Census Bureau, 2000). By 2010, approximately 22 million of the nation's labor force will be minority workers. "African-American students will be one of the minority groups that will be expected to sustain our nation's labor force, including higher education's workforce" (Holmes et al., 2001, p. 42).

The shift in minority representation needed to sustain the workforce, including higher education, signified that uneducated African-Americans would be absent from the workforce and higher education (Holmes et al., 2001). Thus, PWIs must increase their retention rates of graduating African-American students and promoting diversity in education, society, and the workforce (Holmes et al.). This descriptive quantitative study explores the relationship between the predictor variables, campus climate, racial stereotyping, and faculty relationships, and the outcome variable, student retention.

Campus Climate

Racial tension resurfaced in the late 1980s and 1990s on college campuses in the United States, with students protesting about the inequalities at PWIs (Lewis et al., 2000). This tension began in the 1960s, with African-American students stereotyped by their white peers and faculty and received as conditional admits (Cabrera et al., 1999; Davis et al., 2004; Farley, 2002; Holmes et al., 2001; Lewis et al.). Stereotypical views and unwelcoming campus climates create hardships for African-American students at PWIs. From an African-American perspective, the racial climate at PWIs was never good (Lewis et al.). In a study by Mow and Nettles (1990), ninety percent of African-American students claimed that feelings of alienation and loneliness promoted reasons for dropping out.

Ancis, Sedlacek, and Mohr (2000) validated that African-American students faced more negative experiences than any other minority group. The exclusion from mainstream activities, access to academic networks, financial support, and isolation were several themes that continued

to be problematic for African-American students. African-American students expressed their lack of access to campus networks that were available to their white peers. White students rarely associated with them or attempted to include them in study groups, in class activities, and other social networks. Thus, African-American students viewed themselves as invisible and not a part of the broader culture (Ancis et al.).

Racial Stereotypes

Racial stereotypes are identifiable factors that create unsupportive learning environments for African-American students at PWIs. Racial segregation and stereotypical behaviors marked a history of unequal treatment and inequality for African-Americans. African-American students spend an enormous amount of time trying to establish their credibility at PWIs. Constant opposition caused African-American students to internalize the stereotypes from their white peers, which might have an affect on their intellectual functioning and performance. These various racial constructs affected the motivation, morale, and success of African-American college students (Fries-Britt, & Turner, 2001).

Faculty Relationships

Faculty relationships were an essential component in assisting African-American college students at PWIs to achieve success. Guiffrida (2005) argued that faculty relationships affected student satisfaction, academic achievement, and retention. Research showed an increase of interaction amongst African-American students and white faculty at PWIs (Eimers, & Pike, 1996; Fries, & Turner, 2002; Guiffrida, 2004, 2005). Although African-American students responded favorably to the increase in faculty interaction, the quality of conversation going beyond the surface was minimal (Eimers, & Pike, 1996). African-American students noted the unprecedented absence of faculty relationships due to a lack of quality time spent in and outside the classroom.

The Solution

Determining the appropriate diversity initiative for PWI campuses is paramount in retaining African-American students. Institutional leaders, campus policy makers, and teachers can better understand how to develop and implement diversity initiatives by looking at current and past research and taking active measures such as semiannual meetings, open forums, and student and faculty surveys regarding the academic and racial climate on college campuses. These types of ongoing dialogues and surveys explore possibilities and solutions to create harmonious learning communities. Open dialogue and ongoing evaluations provide awareness was the hallmark of Luhmann's social systems theory, which allowed educational leaders and institutions to craft training and educational programs and forums to create an educational ethos that is conducive, equitable, and fair for all minority students. Policymaking is about creating effective change for all minorities at PWIs who feel their campus climate is unwelcoming, who endure racial stereotypes, and feel a lack of satisfactory faculty relationships.

CONCLUSION

Over 50 years later, African-American students are still not receiving equality and equitable treatment at PWIs. The time for change is critical as more African-American students are entering PWIs. The shortage of African-American graduates from these respective college campuses, compared to HBCUs, created a 40% graduation rate gap (Davis et al., 2004). The development and successful implementation of diversity programs is critical for student success. The current study will help to develop for change at PWIs as it pertains to African-American students and student retention. Institutional leaders will be able to use the project data to reinforce why African-American students entering their respective colleges and universities should not feel alienated or subjected to racial inequality but embraced by an academic community that respects and welcomes diversity. In addition, institutional leaders and policy makers can use Luhmann's social systems theory to create effective change that will enrich the lives of institutions and improve their educational mission, vision, curricula and teaching practices. This will help the academic community understand the need for student, faculty, and support staff of diversity initiatives as it seeks to meet the needs of African-American students.

The current study offers new insight into the perceptions of African-American college students regarding campus climate, racial stereotypes, and faculty relationships as related to student retention. Educational leaders should interpret the results of the current study at their own distinctive operating environments. The time for change is here as we educate generations to come to embrace a multicultural society and labor force.

REFERENCES

- Allen, W. R., Epps, E. G., Guillory, E. A., Suh, S. A., & Bonous, M. (2000). The Black academic: Faculty status among African-Americans in U. S. higher education. *The Journal of Negro Education*, 69(1/2), 112-127.
- Allen, W., Epps, E., & Haniff, N. (1991). College in black and white campuses: What quality the experience? In M. Nettles (Ed.), *Toward black undergraduate student equality in American higher education* (pp. 57-86). Westport, CT: Greenwood Press.
- Ancis, J. R., Sedlacek, W. E., & Mohr, J. J. (2000). Students' perceptions of campus climate by race. *Journal of Counseling and Development*, 78(1), 180-186.
- Braddock, J. H., II (1981). Desegregation and black student attrition. *Urban Education*, 15(4), 403-418.
- Braddock, R., & Downham, R. D. (2007). Multiculturalism and the international university. *International Journal of Diversity*, 6(5), 1-9.
- Brotherton, P. (2001). It takes a campus to graduate a student. *Black Issues in Higher Education*, 18(18), 34-43.
- Cabrera, A. F., Nora, A., Terenzini, P. T., Pascarella, E., & Hagedorn, L. S. (1999). Campus racial climate and the adjustment of students to college: A comparison between white students and African-American students. *The Journal of Higher Education*, 70(2), 134-160.
- Carter, D. F. (1999). The impact of institutional choice and environment on African-American and white student's degree expectations. *Research in Higher Education*, 40(1), 17-41.

- Davis, M., Dias-Bowie, Y., Greenberg, K., Klukken, G., Pollio, H. R., Thomas, S. P. et al. (2004). A fly in the buttermilk: Descriptions of university life by successful black undergraduate students at a predominantly white southeastern university. *The Journal of Higher Education*, 75(4), 420-445.
- Eimers, M. T., & Pike, G. R. (1996). *Minority and nonminority adjustment to college: Differences or similarities?* (Report No. 397707). AIR Annual Forum Paper. (ERIC Document Reproduction Service No. ED397707).
- Farley, J. E. (2002). Contesting our everyday work lives: The retention of minority and working-class sociology undergraduates. *The Sociological Quarterly*, 43(1), 1-25.
- Fries-Britt, S. F., & Turner, B. (2001). Facing stereotypes: A case study of black students on a white campus. *Journal of College Student Development*, 42(1), 420-430.
- Furr, S. R., & Elling, T. W. (2002). African-American students in a predominantly white university: Factors associated with retention. *College Student Journal*, 36(2), 188-203.
- Gloria, A. M., Kurpius, R. S., Hamilton, K. D., & Wilson, M. S. (1999). African-American students' persistence at a predominantly white university: Influences of social support, university comfort, Guiffida, D. A. (2004). Friends from home: Asset and liability to African-American students attending a predominantly white institution. *Equity and Excellence in Education*, 38(1), 49-60.
- and self-beliefs. *Journal of College Student Development*, 40(1), 257-268.
- Hallenger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3), 329-351.
- Holmes, L. S., Ebbers, L. H., Robinson, D. C., & Mugenda, A. B. (2001). Validating African-American students at predominantly white institutions. *J. College Student Retention*, 2(1), 41-58.
- Lewis, A. E., Chesler, M., & Forman, T. A. (2000). The impact of colorblind ideologies on students of color: Intergroup relations at a predominantly white university [Electronic version]. *Journal of Negro Education*, 69(1/2), 74-91.
- Mow, S. L., & Nettles, M. T. (1990). Minority access to and persistence and performance in college: A review of trends in the literature. In J. Smith (Ed.), *Higher education: Handbook of theory and research* (pp. 35-105).
- Pascarella, E. T., Edison, M., Nora, A., Hagedorn, L., & Terenzini, P. T. (1996). Influences on students openness to diversity and challenge in the first year of college. *Journal of College Student Development*, 67, 174-195.
- Schwitzer, A. M., Griffen, O. T., Ancis, J. R., & Thomas, C. R. (1999). Social adjustment experiences of African-American college students. *Journal of Counseling & Development*, 70, 18-197.

DO STUDENTS WITH HEALTHY HABITS PERFORM BETTER IN THEIR ACADEMICS?

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ABSTRACT

We investigated if healthy habits have any effect on students' academic performance measured in terms of their cumulative GPA. Eating healthy foods, getting regular sleep, maintaining healthy balance between their work and study hours, maintaining spiritual health and positive attitudes toward life are few healthy habits that we looked into. This study collected data from 200 randomly selected students attending a Catholic College in upstate New York. We found that the more hours a student works in their job per week, lower their GPA are. Students who consume normal vegetable diets with their meals yielded a higher GPA. State of mind like depression, anger and spiritual health, whether they practice regular prayer or they usually feel happy has no effect on their GPA.

1. INTRODUCTION

There are numerous literatures investigating the impact of health decisions of students and their academic standing in college. We are briefly examining some of them. Arguably, among the most influential choices a student needs to make is alcohol consumption. It can have many short and long-term effects associated with its use (or, misuse). Apart from negative health effects, students who consume alcoholic beverages can adversely affect their academics too. Those who drink frequently have a negative impact upon their study hours and GPA and are more likely to be undeclared in their major (see Wolaver, M., 2002).

Researchers have also found that a moderate workweek (less than 20 hours) improved grades among high school students. On the other hand, a student's choice to work extensively (20 or more hours) yielded a negative relationship (Oettinger, G., 1999). Another similar study by Ashby Plant, Anders Ericsson, and Len Hill attempted to show that the amount of time a college student spends working is a predictor of how successful that student will be academically. They found that students who worked extensive hours at a job or spent their time out partying both tended to have a lower GPA (Plant et al., 2004).

Another research found a negative relationship between both academics and depression (Haines et al., 1996). Lee Fergusson and Anna Bonshek's investigation to find a relationship between healthy habits and their GPA among college art students did not find significant relationship (see, Fergusson et al., 1996). According to another study dedicated to health variables

and academics, those who woke up late were associated with lower grades while students who strength trained had higher grades (Trockel et al., 2000).

William and Kathryn Kelly surveyed 148 undergraduate students in an attempt to prove a correlation between the hours of sleep a student gets per night and their GPA. The results of their survey showed that long-sleepers (more than 9 hours per night) had a significantly higher GPA compared to short sleepers (less than 7 hours per night) (Kelly et al., 2001).

Strage et. al focused on how attitudes and personal beliefs have an impact on a college student's academic progress. According to the research, 1379 students from 46 courses were asked to complete a survey. Eventually, the researchers concluded that in accordance to their findings, older students earned higher grades compared to younger students, white students earned a higher GPA than African-American students, and the GPA of students who worked while in school was relatively unaffected regardless of the extent of hours worked per week (Strage et. al., 2002).

The above studies motivated our interest to find out the variables that influence students' GPA. With the progression of time, a student's behavior is rapidly changing, as is their productivity and their willingness to succeed. Twelve years ago, it would take a student a considerable amount of time to write a term paper. Now with the advent of internet it takes much less time to do a similar level of research. Our research brings out few facts whether some of the healthy behaviors, sleeping patterns, or spiritual health affects their academic grades.

2. METHODOLOGY

The goal of our study is to focus on previous research materials while contributing a new set of criteria that affect students' academic performances. To narrow the field of variables affecting a student's GPA, this research will concentrate on a student's health-related habits. Due to alcohol being a common variable in many previous studies, it will not be a part of this research to prevent it from overshadowing potential new findings. Instead, we are going to concentrate on how they spend their time, the foods they tend to consume, and their mental outlook during the week.

The amount of hours a person works in addition to academic responsibilities greatly affects the amount of time they can spend doing other things. If students spend all of their free time doing work, they will not have time to alleviate their mental stress doing things they enjoy. Most students will agree that they need personal time outside of school and work. Likewise, the amount of time you spend working may influence the amount of time you have to spend sleeping or relaxing.

Exercising is one example of spending time to relieve stress. The amount of moderate exercise a student participates in a week should greatly benefit their mental and physical health. Someone with a dedicated work schedule is more likely to have better time management ethics. This includes strength training and weight lifting because these also promote healthy habits. However, someone who weight lifts and exercises too often may not be spending enough time on his or her work. Too much of anything may not be healthy. The previous study we found states that anyone who exercises more than seven hours a week will have significantly lower grades than those who did not.

Nourishment is another aspect of a student's life that can affect their grade point average. What they put in their body may be the difference between being tired or energetic, sick or healthy. However, an individual can easily take a vitamin and then partake in unhealthy eating habits. This

is why we have multiple questions related to food intake. Vitamins are a good way to supplement a healthy eating style. The daily servings of fruit and vegetables are also important sources of nourishment. In addition, the amount of meat and dairy servings a person consumes per day can influence their health.

The mental outlook of the student can also be just as important as how well they maintain their physical health. One factor that can greatly affect a student's attitude towards life is their spiritual beliefs. Someone who prays or meditates often will usually have a more optimistic view of life and events that are occurring around him or her. Their belief in a higher power can be reassuring and therefore give them a stronger mental approach to daily trials. Even secular meditation is a good way to channel the stress of the day.

In addition, how a person feels during the week can have a great effect on their attitude and their ability to concentrate on their schoolwork. How often a person feels happy, worried, overwhelmed, depressed or angry can greatly influence their ability to concentrate on certain tasks. A person who is generally happy and experiences little anxiety is probably going to have an easier time completing schoolwork than an individual who is generally worried and depressed.

A person's age, gender, and major can also have an influence on their GPA. Someone who is a senior may have more responsibilities than a freshman would and may feel more overwhelmed. Different majors may place different demands on students in terms of work and pressure that they feel. Gender may also have an influence on a student's GPA.

2.1 DATA

In order to do this study, we created a list of questionnaires and offered it to two hundred randomly selected students. The list of questionnaires is provided in the appendix. Relevant and up-to-date information on different sets of variables were collected anonymously. The target population for the survey was 18 to 22 year old students in a private, Franciscan college located in upstate New York. We distributed this survey equally among liberal arts department, science department and the business department. We collected students from these three different departments at random hours spanning morning, afternoon and evening hours. There were 87 females and 113 males respondents.

3. RESULTS AND DISCUSSIONS

We used a sample size of 200 from an upstate New York Catholic College. Out of the 87 females, 22 were underclassman and 65 were upperclassman. Out of the 113 males, 32 were underclassmen and 81 were upperclassmen. After we gathered this information, we analyzed the data using statistical regression. With these programs, we constructed charts and tables that show us the relationship between each factor compared to the given GPA. Contrary to our hypothesis, our findings showed little, if any, relationship between many of the factors and GPA. Some results are counter intuitive. For example, the more the female students worked per week, the higher their GPA tended to be. For the males, working more per week significantly lowered their GPA.

First, we looked into all the variables affecting GPA of all 200 students without separating males and females. The result appears in Table #1. We found that higher the work hours, lower is

the GPA. Also, more vegetables in a students' diet, higher their grades are. Although, how often a student feels depressed has strong negative influence on their GPA, however it was not statistically significant at 10% level of significance.

Then we ran regressions for males and females separately. It appears in Table #2. For males, more they work in their job (non-academic), lower their grades are. However, for females, number of hours they work on their job has positive influence on their GPA (although it is not quite statistically significant at 10% level of significance). Amount of vegetables in their daily diet has significant influence in female students' GPA. However, although the vegetables in male students' diet has positive influence on their GPA, it is not quite statistically significant at 10% level of significance. If the female students feel anger more often per week, their grades suffer. Males have no effect due to anger. Hours of sleep, amount of exercise, weight lifting, taking vitamin supplement, taking regular breakfast and other food intakes like, poultry, meats, fruits has no influence on their GPA. Spiritual health, and the states of mind like feel happy, feel worried, feel overwhelmed, feel depressed have no effect on their academic performance.

We defined few dummy variables to see if some group of variables affect their GPA. If the students work less than twenty hours per week, we defined the dummy variable as 1, else 0. Next we defined healthy eating habits following Trockel's definition (see, Trockel, M., 2000). If they take daily at least two servings of fruits, two servings of vegetables, two servings of meats, at least two servings of milk we define it as "healthy eating habit". "Healthy eating habits" along with at least five days of breakfast is defined as "healthy eating habits with breakfast". We also defined less than seven hours of sleep as short sleepers, more than nine hours of sleep as long sleep and anything in between as moderate sleep.

We looked into all the students (See Table #3) and found that if the students work less than twenty hours, it affects their GPA positively. Students who work more than twenty hours affected their GPA negatively. Sleep habits, whether short, moderate or long has no influence on their GPA. Although healthy eating habits has no influence on their GPA, healthy eating habits with regular breakfast has positive influence on their GPA. When we look into males and females separately (Table #4), working less than twenty hours has positive effect on males academic performance. However, amount of work hours did not matter for females.

Using the data we collected, we were able to create a table in excel that can actually attempt to generate a random person's GPA using the variables in the survey. If our sample size was somewhat close to the true population's data, the relationship we came up with should be true for the majority of students at Siena. Simply inputting the person's survey answers will allow excel to come up with a GPA number based on the parameter estimates of those variables.

It is important to note though, that just because there is a correlation between different variables and GPA, does not mean there is a causation. For example, people with high GPAs may very well eat many vegetables but that does not mean the vegetables caused the higher GPA. There are other factors to consider that may cause the behavior, like students who has healthy habits perhaps were developed by their parents gradually. So, just eating vegetables without a structured life perhaps will not raise the academic performance.

When it came to students who work during the semester, our research showed that if students work, their GPA significantly declines especially among male students. Similar results were also apparent in the study done by Oettinger. The study found that a student's choice to work would

ultimately result in a lower academic standing (Oettinger, G., 1999). Another finding we had was that males also have a tendency to have lower GPA's when they are in a depressed state. A study completed by Haines showed the same for males and females. Depressed students had an overall worse GPA than non-depressed students (Haines et al., 1996). William and Kathryn Kelly attempted to see if sleep impacts GPA and they found that long sleepers seemed to score higher GPA's than short sleepers (Kelly et al., 2001). Our findings were different in that males seemed to earn better GPA's if they slept longer but females showed a slight decline in GPA when they slept longer.

4. CONCLUSION

We found that healthy eating habits along with regular breakfast has strong positive relationship with academic performance. Amount of sleep and also amount of exercise or weightlifting do not influence their GPA. Vitamin supplements does not affect their GPA. Amount of prayer, their mental state of happiness, whether they are overwhelmed or not, their spiritual health also do not affect their grades. These results follow the results of some of the previous authors.

Our sample size for females is substantially lower than that of males. We plan to do further research increasing the overall sample size and trying to have equal representatives from males and females.

REFERENCES

- Fergusson, Lee C., Anna J. Bonshek. "Health and Postsecondary Art Achievement: A Study of Four Universities in Iowa." *College Student Journal* 30 (September 2007): 105-111
- Haines, Mary E., Margaret P. Norris, Deborah A. Kashy. "The Effects on Depressed Mood on Academic Performance in College Students." *Journal of College Student Development* 37 (October 1996): 519-525.
- Kelly, William E., Kathryn E. Kelly, Robert C. Clanton. *The Relationship between Sleep Length and Grade Point Average among Students.*
- Oettinger, Gerald S. "Does High School Employment Affect High School Academic Performance." *Industrial and Labor Relations Review* 53 (October 1999): 136-151.
- Plant, E. Ashby; Ericsson, K. Anders; Hill, Len; Asberg, Kia. "Why study time does not predict grade point average across college students: Implications of deliberate practice for academic performance." *Contemporary Educational Psychology* 30 (Jan 2005): 96-116.
- Strage, Amy, et al. "What Every Student Affairs Professional Should Know: Students Study Activities and Beliefs Associated with Academic Success." *Journal of College Student Development* 43 (April 2002): 246-259.
- Trockel, Mickey T. "Health-Related Variables and Academic Performance Among First-Year College Students: Implications for Sleep and Other Behaviors." *Journal of American College Health* 49 (November 2000): 125-138.
- Wolaver, Amy M. "Effects of Heavy Drinking in College on Study Effort, Grade Point Average, and Major Choice." *Contemporary Economic Policy* 20 (October 2002): 415-428.

APPENDIX 1: REGRESSION RESULTS

TABLE-1: Males and Females Together

Parameter Estimates (Males and females together)	
Variables	Coefficient (t-Stat)
Intercept	2.99 (7.49*)
Work hours per week	-0.00706 (-2.63*)
Hours of sleep	0.01169 (0.44)
Exercise	-0.00177 (-0.09)
Weight lifting	-0.01170 (-0.58)
Vitamin supplement	-0.00661 (-0.65)
Breakfast	0.00919 (0.79)
Fruit	-0.00368 (-0.23)
Vegetables	0.03341 (2.00*)
Meat	0.00063240 (0.04)
Milk	-0.00460 (-0.33)
Prayer	-0.00467 (-0.34)
Feel happy	-0.01204 (-0.60)
Feel worried	0.01546 (0.92)
Feel overwhelmed	0.00173 (0.11)
Depressed	-0.02754 (-1.42)
Angry	-0.01758 (-1.02)
Spiritual health	0.00047526 (0.04)
Age	0.00935 (0.62)
n	200
R-Square	0.1060

TABLE-2: Males and Females Separately

Variable	Parameter Estimate (Female)	t Value (Female)	Parameter Estimate (Male)	t Value (Male)
Intercept	2.88285	5.51*	3.33115	4.30*
Work hours per week	0.00620	1.31	-0.01148	-3.10*
Hours of sleep	-0.00935	-0.25	0.02968	0.77
Exercise	0.03805	1.39	-0.02543	-0.83
Weight lifting	-0.02448	-0.79	0.00800	0.26
Vitamin supplement	0.00389	0.27	-0.01574	-0.92
Breakfast	0.00685	0.40	0.00069336	0.04
Fruit	0.00192	0.09	-0.00112	-0.05
Vegetables	0.03843	1.63	0.03243	1.21
Meat	0.00287	0.13	-0.00002020	-0.00
Milk	-0.00565	-0.27	-0.00191	-0.09
Prayer	-0.00702	-0.40	0.00524	0.24
Feel happy	-0.01379	-0.43	-0.00062491	-0.02
Feel worried	0.02108	0.84	-0.00434	-0.18
Feel overwhelmed	-0.02553	-1.04	0.00269	0.13
Depressed	0.00433	0.17	-0.05757	-1.80*
Angry	-0.03933	-1.61	-0.00335	-0.13
Spiritual health	0.00682	0.44	-0.00772	-0.48
Age	0.01350	0.80	-0.00967	-0.29
n	87		113	
R-Squared	0.1353		0.1936	

TABLE-3: Males and Females Together: Some New Variables Added

Variable	t Value
Intercept	7.87*
Work less than twenty hours	2.20*
Moderate sleep	0.44
Long sleep	0.41
Exercise	0.50
Weight lifting	-0.93
Vitamin supplement	-0.00
Healthy eating	-0.18
Healthy eating with breakfast	1.77*
Prayer	-0.67
Feel happy	-0.53
Feel worried	0.66
Feel overwhelmed	0.38
Depressed	-1.12
Angry	-1.06
Spiritual health	0.24
Age	0.54
n	200
R-Square	0.0845

TABLE-4: Males and Females Separately: Some New Variables Added

Variable	Parameter Estimate (Female)	t Value (Female)	Parameter Estimate (Male)	t Value (Male)
Intercept	3.04814	6.88*	3.05441	3.96*
Work less than twenty hours	-.06694	-0.56	0.29623	2.63*
Moderate sleep	-.010183	-1.12	0.09401	1.12
Long sleep	-0.18133	-0.64	0.58132	1.36
Exercise	0.02478	0.93	-0.01634	-0.55
Weight lifting	-1.01868	-0.64	0.00715	0.23
Vitamin supplement	0.01406	1.02	-0.01284	-0.74
Healthy eating	-0.00049818	-0.01	0.00486	0.05
Healthy eating with breakfast	0.03843	1.39	0.04719	0.33
Prayer	-0.00435	-0.25	0.00824	0.39
Feel happy	-1.00725	-0.22	0.00208	0.08
Feel worried	0.02499	1.00	-0.01455	-0.59
Feel overwhelmed	-0.01349	-0.57	0.01029	0.49
Depressed	0.00454	0.18	-0.05442	-1.68*
Angry	-0.04085	-1.67*	-0.00960	-0.37
Spiritual health	0.01495	0.96	-0.00850	-0.56
Age	0.01152	0.72	-0.00556	-0.17
n	87		113	
R-Squared	0.1227		0.1729	

APPENDIX 2:

Survey questions:

How many hours per week do you work?

Hrs of sleep per night

Exercise for at least 30 min at a time per week

How many days per week one weight lifts

How many days per week one takes vitamin supplement

How many days per week do u eat breakfast

How many days per week do you have 2 servings of fruits

How many days per week do you have 3 servings of vegetables

How many days per week do you have 2 servings of protein

How many days per week do you have 2 servings of dairy products

How many days per week do you pray or meditate

How many days per week you feel happy

How many days per week you do you get anxious or worried

How many days per week you do you feel overwhelmed due to time pressure

How many days per week you do you feel sad or depressed

How many days per week you do you feel angry or irritated

How many days per week you do you feel happy with your spiritual health

Gender: Male = 1, Female = 0

Your GPA =

DOES ALCOHOL CONSUMPTION AFFECT COLLEGE GRADES?

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ABSTRACT

Using a random sample of ninety students from a Catholic college, some variables influencing drinking decisions have been identified. Separate college GPA equations for drinkers and non-drinkers have been estimated correcting for self selection bias. The sample data suggests: drinking alcohol during college years does not affect grades..

Keywords: *Self Selection, Probit, Alcohol Effect*

1. INTRODUCTION

There are numerous studies exploring the effect of alcohol use on physical or mental health and also on wages and performances. Researchers have studied the effect of excessive alcohol use on youth motor vehicle fatalities (Cook, P. J. and Tauchen, G., 1984 and Coate, D. and Grossman, M., 1986). Researchers have also found that moderate alcohol use has beneficial physical and psychological effects (Turner, T.B., Bennett, V.L. and Hernandez, H., 1981). It has also been found that drinkers earn higher wages than non-drinkers (Berger, M.C. and Leigh, J.P., 1988). There are numerous literatures investigated the impact of some of the choices that students make on their academic performances. Apart from negative health effects, students who consume alcoholic beverages can adversely affect their academics too. Those who drink frequently have a negative impact upon their study hours and GPA and are more likely to be undeclared in their major (see, Wolaver, M., 2002).

This article studied the effect of alcohol use on academic performances. A random sample of ninety students from a Catholic college has been used for this research.

There are studies that used drinking as exogenous variable in order to understand its effect on grade point average. These studies bring in elements of bias in estimation because drinking decision is made by individuals. That individual choice to drink may be influenced by some other factors like parents' behavior, the way they were brought up, etc. And those factors that influenced drinking decision may also influence their study habit and finally that will reflect on their academic performance. So, the studies that used drinking as exogenous variable to determine its effect on grades, had failed to account for the endogeneity of individual's choice of whether to use alcohol or not. This issue can be nicely modeled by the "self selection model" as proposed in the seminal work by Nobel laureate James Heckman. By following Heckman's approach, I made drinking decision endogenous by first estimating probability of drinking decision (a probit model). In the second stage of the estimation, I used "mills ratio" generated from the probit equation to correct for "self selection bias". Least square estimation in the second stage, determines whether drinking affected their overall GPA.

2. METHODOLOGY

Selectivity bias arises when the unobserved variables affecting drinking decisions also affect academic performance. For example, certain unobserved habits of parents may have influenced the drinking decision and also it may have influenced study habit. In such cases, estimates of grade point averages will be biased.

Let $drnk^*$ be an unobserved variable denoting two states: drinkers and non-drinkers. We assume that $drnk^*$ be a linear function of individual characteristics and family demographics.

The reduced form propensity to drink equation is

$$drnk^* = Za + v \quad (1)$$

is the latent variable measuring the propensity to drink. $drnk^* \geq 0$ for drinkers and for non-drinkers. Some measurable individual characteristics and family demographics are denoted by Z . Some of these Z variables influence drinking decision and some of these Z variables also influence the grade point average (GPA). Equation (1) is a reduced form equation for propensity to drink. This reduced form equation is used to calculate probability of a drinking decision and also the selectivity term (mills ratio).

The wage equations estimated are

$$\begin{aligned} GPA_{ND} &= X_{ND}b_{ND} + e_{ND} \\ GPA_D &= X_Db_D + e_D \end{aligned} \quad (2)$$

Subscripts ND refers to non-drinker and D refers to drinker. At least one of the variables from (1) has to be excluded from the X variables in (2) in order to identify the set of equations in (2). e is the error term. The GPA has not been included in the equation (1). The error term v in (1) and the error term e in (2) are potentially correlated, linking these three sets of equations. If v and e are correlated then the ordinary least squares estimate of the GPA from (2) will be biased because of self selectivity. Self selection for choice to drink might affect their grades. Unobserved variables which affect decision to drink might affect their GPA. So, unless (1) and (2) are not estimated simultaneously, ordinary least squares estimates for b_{ND} and b_D will be biased.

This is a model similar to one proposed by Heckman, J.J. (1979), Lee, L.F. (1978) where they treated sample selection bias issue as omitted variable problem. Similar approach was taken by Berger, M.C. and Leigh, J.P. (1988).

If f and F are the Normal density and Normal distribution functions respectively, then the GPA for drinkers and non-drinkers can be estimated as follows:

$$E(GPA_{ND} | drnk^* < 0) = X_{ND}b_{ND} + E(e_{ND} | drnk^* < 0) \quad (3)$$

$$E(GPA_D | drnk^* \geq 0) = X_D b_D + E(e_D | drnk^* \geq 0) \quad (4)$$

where,

$$E(e_{ND} | drnk^* < 0) = \left(\frac{\sigma_{ND-v}}{\sigma_v} \right) \left(\frac{-f(drnk^*)}{1-F(drnk^*)} \right) \quad (5)$$

$$E(e_D | drnk^* \geq 0) = \left(\frac{\sigma_{D-v}}{\sigma_v} \right) \left(\frac{-f(drnk^*)}{F(drnk^*)} \right) \quad (6)$$

if σ_{ND-v} and σ_{D-v} are non-zero, the ordinary least squares estimates are unbiased. Equation (1) is estimated by probit with observed drinking decisions, i.e., $drnk = 1$ if $drnk^* \geq 0$ and $drnk = 0$ if $drnk^* < 0$. Then the Mills Ratios are: $\left(\frac{-f(drnk^*)}{1-F(drnk^*)} \right)$ if $drnk^* < 0$ and $\left(\frac{-f(drnk^*)}{F(drnk^*)} \right)$ if

$drnk^* \geq 0$ are estimated and used as another explanatory variable in the regression equation (2) to estimate GPA for drinkers and non-drinkers, this will produce consistent estimates of the coefficients.

3. DATA

A random sample 90 students from an upstate New York Catholic college were selected. Freshman students were excluded because they do not have enough courses taken for a meaningful data on their GPA. The following are the variables on which data were collected:

Citation:	If the student violated (any time) college alcohol policy and was cited by an official, it has value 1, else 0.
Arrest:	number of times the student was arrested in the past
College drinks:	Average number of alcoholic beverages consumed per week at college. An alcoholic beverage is defined as 12 fl oz. of 6-10 proof beer, 4 fl oz. of 16-24 proof wine, or, 1.5 fl oz. of 80 proof liquor.
College GPA:	Cumulative college grade point average when the interview was done.
Divorce:	whether the parents are divorced, 1 = if married, 0 = otherwise.
Exp_Sus:	Number of times expelled or suspended from high school.
Family wealth:	Regardless of marital status, total combined wealth of both biological parents.
Father_drink:	The average number of alcoholic beverages consumed per week by biological father.
Father_edu:	The number of years of post high school education completed by biological father.
Fr_age:	Age at the beginning of the freshman year of the college.
Gender:	male = 1, female = 0
HS_drinks:	Average number of alcoholic beverages consumed per week during high school.
HS_GPA:	Cumulative high school grade point average.

Mom_drink: The average number of alcoholic beverages consumed per week by the biological mother.
 Mom_edu: The number of years of post high school education completed by biological mother.
 Parent_sal: The average combined annual income of biological parents.
 SAT: Naturalized scholastic aptitude test score as a percentage of total points (out of 1600 or 2400)

Using this data, the following results were obtained.

4. RESULTS

We collected data on average number of drinks one takes per week. In order to estimate the probit equation, we have to define a “drinker” and a “non drinker”. It is a difficult proposition to make a cut off point on number of drinks per week, if a person drinks more than that number, he will be designated as drinker. There is no such accepted definition of a “drinker”. For the first part of this analysis, I have defined if a students took an average of five or more drinks per week, he/she is designated as a drinker (= 1), otherwise a non-drinker (= 0). After doing the initial analysis, I have changed this definition of a “drinker” by using different number of drinks per week. Then I explored if the definition of a “drinker” has any influence on the main result of this analysis.

First of all a probit equation is estimated. It estimates propensity to drink. Explanatory variables chosen are freshman age of the student, whether they were cited for violating college alcohol policy, their past high school GPA, scores on SAT, number of times expelled or suspended from high school, number of times they were arrested before, whether biological parents are married (div = 1, else 0), average number of alcoholic drinks consumed by father, also, separately by mother, number of years of post high school education by father and also, separately by mother, parents’ combined salary, number of alcoholic drinks consumed while in high school and family wealth (assets minus liabilities). The results are as follows:

TABLE-1: PROBIT ESTIMATES FOR DRINKING DECISION		
Independent variables	coefficient	z-statistics
Constant	-4.867	-0.466
Fr age	0.250	0.547
Citation	2.702	2.596
HS GPA	-1.287	-1.573
SAT	5.902	1.083
Exp Sus	-2.382	-1.650
Arrest	4.241	0.000
Divorce	-1.469	-1.643
Father_drink	-0.023	-0.429
Mom_drink	0.076	0.669
Father_edu	0.074	0.569
Mom_edu	0.053	0.373
Parent_sal	6.44E-06	1.862
HS_drinks	0.591	3.409
Family_wealth	-9.83E-07	-2.378
McFadden R-squared	0.634	
n	90	

Bold numbers indicate that the corresponding variables are significant at 10% level of significance. Number of past citations for violating college alcohol policy came to be significant. That means they have not learned the lesson. In the past if students were cited for violating college alcohol policy, they are still among those with high propensity to drink.

If the student had record of past suspension in high school, it had negative impact on probability of drinking, effectively saying that the student learned the lesson. Students from divorced families tend to be drinkers. Intuitively it makes sense. If the student had history of drinking during high school, they continued to drink in the college. If the high school GPA were higher, it affected college drinking decision negatively at relatively high level of significance. All these results are intuitive. However, I found an interesting result: high parents' salary positively affects drinking decision whereas high family wealth negatively affects drinking decision. If we assume that the wealth creation perhaps needs more discipline from one generation to another, and it takes generations to create wealth, then perhaps those parents will try to instill good discipline in their kids. There by less drinking habits for students from wealthier families.

Mills ratios were calculated from this probit equation and used as explanatory variable for estimating the least squares equations (2) for drinkers and non-drinkers. In order to identify the least squares equation, the variable "citation" was omitted. Intuitively, the effect of drinking would influence these least squares estimates through the mills ratio. So, by eliminating citation variable would not affect these estimates.

Independent variables	Drinkers		Non-drinkers	
	coefficient	t-statistic	coefficient	t-statistic
Constant	-0.024	-0.016	6.835	2.223
Fr_age	0.043	0.742	-0.387	-2.941
HS_GPA	0.161	0.928	0.422	1.240
SAT	2.864	2.595	-0.669	-0.390
Exp_Sus	0.147	0.787	0.757	1.813
Arrest	-0.083	-0.319	0.041	0.412
Divorce	-0.046	-0.316	0.075	0.238
Father_drink	0.004	0.376	-0.007	-0.199
Mom_drink	-0.016	-0.787	0.024	0.314
Father_edu	0.036	1.362	-0.038	-0.700
Mom_edu	-0.043	-1.411	0.019	0.412
Parent_sal	-2.45E-07	-0.582	6.89E-07	0.327
HS_drinks	-0.018	-0.937	0.012	0.151
Family wealth	1.50E-08	0.311	-1.16E-08	-0.042
Mills	-0.443	-1.365	0.605	0.918
R-squared	0.372		0.548	
n	51		28	
Mean of dep. Variable	3.09		3.27	

For drinkers, only the SAT scores influenced their college GPA significantly. SAT scores for non-drinkers apparently did not affect the GPA. For non-drinkers, number of suspensions

seemed to affect their GPA positively. Perhaps this is an effect of learning curve: past punishments have worked better for non-drinkers. Another interesting result for non-drinkers is, older they are lower their GPA is. However, mills ratio was not significant for any group: the drinking decision did not affect their GPA, neither for drinkers, nor for non-drinkers. The average GPA for non-drinkers (3.27) came to be slightly more than that of drinkers (3.09).

The result that drinking has no influence on their GPA is surprising. A question may be raised on the definition of a “drinker”. So, I changed the number of drinks per week in the definition of drinking and checked its influence on the GPA. I created few other dummy variables such as: D_8 (more than 8 average drinks per week), D_20 (more than 20 average drinks per week) and D_30 (more than 30 average drinks per week) and have used these dummies in the regression to check if any of these variables has any influence on GPA. I ran this regression for all 90 students. Partial regression estimates in the GPA equation (for drinkers) are given below:

Independent variable	Coefficient	t-Statistic
D_4	-0.099	-0.787
D_8	-0.079	-0.595
D_20	-0.035	-0.169
D_30	-0.245	-0.962

We see that none of the drinking dummies are significant. I can conclude that no matter how we define a drinker, drinking has no effect on GPA's. This result is somewhat different from Wolaver (2002) who found that drinking had negative impact on GPA. We also have to note that our sample data is from a small Upstate New York Catholic college where the students come from less diverse background.

5. CONCLUSIONS

A group of ninety randomly selected undergraduate students were studied to identify variables affecting their drinking behavior. A probit equation was estimated identifying variables affecting it. I checked whether their decision to drink had influenced their college GPA. I found that drinking choice did not influence their grades. This result is robust to changes in definition of “drinker”.

Most of the results are consistent with those found in other academic performance studies. Higher the number of citation for violating alcohol policies, higher was their propensity to drink. If the high school GPA was higher, perhaps they were more disciplined, lower was the propensity to drink. Past suspensions made their propensity to drink less. Perhaps punishments had worked. Kids from broken families had higher propensity to drink. A very interesting result is: students from wealthier families have less propensity to drink. Whereas, students coming from high combined salaries of parents have higher propensity to drink. May be wealth creation is accumulated effect of good habits and parents perhaps instilled that habit in their kids. Can it be the reason that because both parents were working and earning higher salaries, making them spend less time at home with

kids. That perhaps made kids pick up bad habits and there by higher propensity to drink. However, it needs further experimental studies.

The mills ratio calculated from the probit equation did not affect the regression to estimate the GPA. So I can conclude from the available data that the drinking behavior did not affect college GPA. Perhaps their drinking behavior was under control. Most come from catholic background, may be that has something to do with it. For drinkers, "SAT score" was the only variable that affected the college GPA. And for the non-drinkers, earlier they joined college, better were their college grades. Past suspensions influenced college GPA positively.

The main result is: the drinking behavior did not affect college GPA. And this result is robust to any definition of drinking. I need to do further research to check if this results are different for non-catholic colleges.

REFERENCES

- Cook, P. J. and Tauchen, G. (1984). The Effect of Minimum Drinking Age Legislation on Youthful Auto Fatalities. *Journal of Legal Studies*, 13, 169-190.
- Coate, D. and Grossman, M. (1986) Effect of Alcoholic Beverage Prices and Legal Drinking Ages on Youth Alcohol Use. *NBER Working Paper*, No. 1852.
- Turner, T.B., Bennett, V.L. and Hernandez, H. (1981). The Beneficial Side of Moderate Alcohol Use, *Johns Hopkins Medical Journal*, 148, 53-63.
- Berger, M.C. and Leigh, J.P., (1988). The Effect of Alcohol Use on Wages, *Applied Economics*, 20, 1343-1351.
- Heckman, J.J. (1979). Sample Selection Bias as a Specification Error, *Econometrica*, 47, 153-161.
- Lee, L.F. (1978). Unionism and Wage Rates: A Simultaneous Equations Model with Qualitative and Limited Dependent Variables, *International Economic Review*, 19, 415-443.
- Wolaver, Amy M. (2002). Effects of Heavy Drinking in College on Study Effort, Grade point Average, and Major Choice, *Contemporary Economic Policy* 20 (October), 415-428.

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DOES MENTORING REALLY WORK FOR COLLEGE STUDENTS?

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ABSTRACT

There is a lack of research on whether mentoring will help undergraduate college students prepare for the professional world. Only about half of college attendees graduate and many are ill-prepared for professional careers. The Personal Skills Map, a comprehensive assessment tool that identifies emotional intelligence, was administered to 152 freshmen and 58 sophomores in a non-equivalent control group design. The freshmen participated in a mentoring program; sophomores did not. Both groups were administered the Personal Skills Map later as seniors. The results showed that mentoring had a positive effect on academic development, social development, and retention, but had no impact on cognitive development. The findings suggest that other colleges and universities should consider implementing mentoring programs.

INTRODUCTION

Despite continuing increases in the cost of a college education, Americans still place a high value on a college education (Americans Place, 2002). DesJardins, Ahlburg, and McCall (2002) report that college graduates earn twice as much as high-school graduates and six times as much as high-school dropouts. Yet only about half of all college attendees graduate. For those students who do graduate, many are often ill prepared for the professional world. Students need academic and emotional support services to enhance their chances for success while in college, which has a bearing on their success after graduation.

There is some evidence in the literature that suggests a causal relationship between support programs and students' performance (Campbell & Campbell, 2000; Ferrari, 2004; Kelly & Schweitzer, 1999; Waldeck, Orrego, Plax, & Kearney, 1997). Mentoring can provide such support for college students. Mentoring can contribute to increasing students' self-efficacy and assist in their setting and accomplishing goals. Goal accomplishments, academic and otherwise, can serve as extrinsic and intrinsic rewards, providing motivation for a student to work harder, thereby improving performance.

In a study of graduate students, Kelly and Schweitzer (1999) found that those students who received some type of mentoring generally did better than those who received no mentoring. However, while mentoring in the business world is commonplace, its use in academics is not as prevalent, particularly at the undergraduate level. A recent search of an academic database produced 1,494 scholarly articles related to mentoring of many diverse groups: pharmacists, nurses, various categories of youth, high school students, teachers, prisoners, soldiers, multiple categories of minorities, women, and those afflicted with various physical ailments and mental disorders. Less

than 1% of the articles related to mentoring of college students. This lack of academic research on the value of mentoring for college students has created a void of evidence for those who may be interested in applying mentoring in an undergraduate college program.

MENTORING RESEARCH

While scholars cannot agree on the exact time frame of the story or its writing, many scholars relate that the concept of mentoring can be derived from the character Mentor from Homer's *Odyssey*, which dates as far back as the 12th century B.C. (Bartell, 2005; Dappen & Isernhagen, 2005; DuBois & Karcher, 2005; Johnson, 2002; Miller, 2002; Murray & Owen, 1991; Schwiebert, 2000; Smith, 2005). Schwiebert (2000) noted that mentoring developed into a strategy that was used primarily by men to further a protégé's career in business and industry. During the Middle Ages, the concept of mentoring was applied in craft guilds in the form of apprenticeships (Murray & Owen, 1991). Schwiebert reported that mentoring was a commonly accepted way of educating young people during the Renaissance period. DuBois and Karcher (2005) asserted that throughout history, "...mentoring has been used as an instrument of social learning in which the mentored are inculcated into a particular set of values and practices...religious, military, political, or vocational" (p. 15).

Freedman (1999) described the development of mentoring in the United States in three waves. The first wave began with a social reform movement in the late 19th century. The first mentoring program, Big Brothers, developed in New York in the early 20th century. Eventually other programs emerged to help females, such as the Catholic Big Sisters of New York.

The second wave occurred in the 1970's with efforts in the corporate world to help women break through the glass ceiling, the subtle and not-so-subtle barriers that women face in career progression. Corporate mentoring programs eventually expanded to include minorities as well. The third wave began in the 1980s with emphasis from the administration of President Ronald Reagan on voluntarism to address deep-seated social problems. This emphasis has continued through the administrations of Presidents George Bush, Bill Clinton, and, most recently, George W. Bush. The focus of mentoring in this phase of development has been on enlisting middle-class volunteers to serve as mentors for disadvantaged and at-risk youth, as well as increased support through collaboration between schools, corporations, and universities (Miller, 2002).

METHOD

The purpose of this study was to determine whether or not mentoring will improve undergraduate students' performance and increase graduation rates. This study was an attempt to determine if the completion of a formal mentoring program will improve the academic, cognitive, and social development of students in small colleges, as well as their retention and graduation rates.

One class of freshmen and one class of sophomore students at a small liberal arts college were used as the population of the study. The freshmen participated in a 1-year mentoring program; the sophomores did not receive the mentoring. Pretest data were collected during the classes' freshman and sophomore years, respectively, and posttest data were collected during each class' senior year. The students' GPA's and graduation rates were used to measure their academic performance to ascertain if the mentoring had an effect on academic performance. Student retention

rates were compared to determine any effects from the mentoring. Cognitive and social development were measured from data collected through pretest and posttest administration of The Personal Skills Map, which provided objective measurement on 14 scales in five dimensions of personal effectiveness.

RESULTS

A comparison of the correlation coefficients indicated a positive correlation between GPA, graduation rates and mentoring. The results were statistically significant, $p < .05$. An independent-samples t test of GPA's indicated that the mentored students had higher GPA's than non-mentored students, and the results were statistically significant, $p < .05$. The results of a chi-square test of association between mentoring and graduation rates indicated higher graduation rates for mentored students than non-mentored students, $p < .05$. The combined results of the correlations, t test, and Chi square test show that completion of the formal mentoring program had a positive effect on the academic performance of students at the institution.

A paired samples t test of the cognitive development scales of the Personal Skills Map was conducted for the experimental control groups. The data reflected the differences between the pretest and posttest mean scores of the cognitive development scales for the experimental and control groups. The mean differences for the mentored group were statistically significant for only two of six scales, $p < .01$ to $< .05$. However, the mean differences for the non-mentored group were statistically significant for four scales, $p < .01$ to $< .05$. Mentored students had higher mean scores than non-mentored students for three of the scales. Non-mentored students also had higher mean scores for three of the scales. Additionally, there was no difference for one scale. Thus the results were inconclusive, indicating mentoring did not have a positive effect on the cognitive development of students.

A paired samples t test of the social development scales was conducted for the experimental control groups. The data reflected the differences between the pretest and posttest mean scores of the social development scales of the Personal Skills Map for the experimental and control groups. The mean differences for the mentored group were statistically significant for four scales, $p < .01$ to $< .05$. The mean differences for the non-mentored group were statistically significant for only three scales, $p < .01$ to $< .05$. A comparison of the differences between mean scores of both groups revealed that mentored students had higher mean scores than non-mentored students for all of the scales for social development. The results show that completion of the formal mentoring program had a positive effect on the social development of students.

The correlation coefficients for graduation rates and retention rates at the sophomore and senior levels indicated a positive correlation between mentoring and graduation rates, and between mentoring and retention at the sophomore level. The results were statistically significant for graduation-mentoring, $p < .05$, and sophomore retention, $p < .05$. However the result for retention at the senior level was not significantly significant, $p = .14$. The results of a chi-square test of association between mentoring and graduation rates indicated statistically significant higher graduation rates for mentored students than non-mentored students, $p < .05$. The results of a chi-square test of association between mentoring and retention at the sophomore level indicated

statistically significant higher retention rates for mentored students than non-mentored students after the first year of college, $p < .05$.

A chi-square test of association between mentoring and retention at the senior level indicated higher retention rates for mentored students than non-mentored students through four years of college; however, the results were not statistically significant, $p = .14$. Still, these combined results show that completion of the formal mentoring program had a positive effect on the retention of students.

DISCUSSION AND CONCLUSIONS

A review of related literature suggested that mentoring would have a positive effect on the progress of students. The purpose of this study was to determine whether or not mentoring will improve undergraduate students' performance and increase retention and graduation rates. The results of the tests indicated that mentoring had a positive effect on academic development (GPA and graduation rates), social development, and retention of students. The results of the tests of cognitive development were inconclusive.

Toossi (2005) reported that the U. S. Bureau of Labor Statistics projected that the average growth rate of workers 55 and older will increase 4 times the growth rate of the overall labor force. The annual growth rate of the 25-to-54-year age group will be 0.3 %. However the growth rate of the 16-to-24-year-olds will be essentially flat. This will create a significant shortage in the labor force. Bruckner (2006) concurs in noting that 20 million fewer people were born between 1959 and 1979 than in the previous "Boomer Generation". He also asserts that the number of college graduates is expected to fall similarly. The Consortium for Student Retention Data Exchange (2001) reported that the six-year graduation rate for first-time freshmen is 54.1%. Given the bleak labor forecast over the next decade and beyond, we will need significantly more college graduates. However, current graduation rates are not encouraging.

Based on the results of this study, colleges and universities can improve students' performance through mentoring programs. Such improved performance will enhance students' self-esteem and self-efficacy, which in return produce a concomitant improvement in the students' performance. Students will then be motivated to stay in school, which will result in higher graduation rates and a greater capability to meet future labor demands.

REFERENCES

- Americans place high value on college education (2002). *Black Issues in Higher Education*, 19(19), 4.
- Bartell, C. A. (2005). *Cultivating high-quality teaching through induction and mentoring*. Thousand Oaks, CA: Corwin Press.
- Bruckner, F. (2006). Team effort needed to head off crisis. *ENR: Engineering News Record*, 256(21), 63.
- Campbell, D. E., & Campbell, T. A. (2000). The mentoring relationship: Differing perceptions of benefits. *College Student Journal*, 34(4), 516.

- Consortium for Student Data Exchange. *Annual Report*. 2001). Retrieved September 28, 2003, from <http://www.occe.ou.edu/csrde/>
- Dappen, L. D. & Isernhagen, J. C. (2005). Developing a student mentoring program: building connections for at-risk students. *Preventing School Failure*, 49(3). Retrieved January 26, 2006, from <http://web16.epnet.com/citation.asp>, 1-13.
- DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2002). A temporal investigation of factors related to timely degree completion. *Journal of Higher Education*, 73(5), 555-581.
- DuBois, D. L., & Karcher, M. L. (Eds.). (2005). M. L. 2005). *The handbook of youth mentoring*. Thousand Oaks, CA: Sage Publications.
- Ferrari, J. R. (2004). Mentors in life and at school: impact on undergraduate protégé perceptions of university mission and values. *Mentoring and Tutoring*, 12(3). Retrieved on January 28, 2006, from <http://web14.epnet.com/citation.asp>, 1-13
- Freedman, M. (1999). *The kindness of strangers: Adult mentors, urban youth, and the new volunteerism*. Cambridge: Cambridge University Press.
- Johnson, K. E. (2002). *Being an effective mentor: How to help beginning teachers succeed*. Thousand Oaks, CA: Corwin Press.
- Kelly, S. & Schweitzer, J. H. (1999). Mentoring within a graduate school setting. *College Student Journal*, 33(1), 130.
- Miller, A. (2002). *Mentoring students & young people: A handbook of effective practice*. London: Kogan Page.
- Murray, C. & Wren, C. T. (2003). Cognitive, academic, and attitudinal predictors of the grade point averages of college students with learning disabilities. *Journal of Education for Business*, 36(5). Retrieved on May 10, 2006, from <http://web24.epnet.com>, 1-10.
- Schwiebert, V. L. (2000). *Mentoring: Creating connected empowered relationships*. Alexandria, VA: American Counseling Association.
- Smith, M. V. (2005). Modern mentoring: Ancient lessons for today. *Music Educators Journal*, 92(2). Retrieved on January 28, 2006, from <http://web14.epnet.com/citation.asp>, 1-13.
- Toossi, (2005). Labor force projections to 2014: retiring boomers. *Monthly Labor Review*, 128(11), 1. Retrieved on July 20, 2006, from <http://www.bls.gov/opub/mlr/2005/11/art3exec.htm>
- Waldeck, J. H., Orrego, V. O., Plax, T. G., & Kearney, P. (1997). Graduate student/faculty mentoring relationships: who gets mentored, how it happens, and to what end. *Communication Quarterly*, 45(3), 93-109.

AN EXPLORATORY STUDY: BUSINESS FACULTY AND THE FACULTY STRESS INDEX

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ABSTRACT

Today's work environment is increasingly characterized as being stressful for employees, supervisors, and employers. One occupation that is perceived by many as being a low stress career is teaching in higher education, where the employee only works a few hours each week teaching his/her classes. The purpose of this exploratory study was to determine business faculty perceptions about job stress.

INTRODUCTION

In academics, as in other places of employment, employees have many stresses placed on them. College teaching was once considered a "low stress occupation" (Fisher, 1992). College faculty now have more demands on their time including teaching, tutoring, career advising, scheduling student classes, conducting research and additional service to their department, college, etc. Frederick Endres and Stanley Wearden (1996) studied full-time journalism and mass communications faculty. Ninety-seven percent reported that they experience work related stress and that this stress had a negative impact on their perceptions of themselves and their work. Walter Gmelch in his book *Coping with Faculty Stress* (1993) noted the negative impact that stress can have on faculty performance. The stress factors Dr. Gmelch identified were "rewards and recognition, time constraints, departmental influence, professional identity, and student interaction." This study was undertaken to determine business faculty perceptions of stress using Gmelch's Faculty Stress Index (FSI). The authors were interested in whether faculty perceived work related stress.

Administrators are interested in teacher stress since one of the costly aspects of teacher stress is teachers taking time off ("Stress takes it toll on our teachers, 2008). In higher education if the faculty member takes off longer periods of time, classroom replacement and costs can be a strain on departmental and college budgets. For some teachers, the stress can cause them to leave the teaching profession (e.g., Lambert and McCarthy, 2007). Hiring a replacement adds to the administrative costs as well as disrupts the work environment. In a study by Thelma Sanders (1990) one of the perceptions of stress on faculty members looked at demographic data including age, sex, marital status, ethnic background, tenure, and academic rank. This study went on to include recommendations for administrators to help reduce the stress.

LITERATURE REVIEW

This study hypothesized that age, years of experience, gender, and currently teaching online would be factors in how work related stress is perceived. The authors felt, based on the literature reviewed and personal and anecdotal experiences, that these would be relevant variables that would contribute to the perception of stress. The following is a review of the relevant literature in this area.

According to Elizabeth J. Thorsen (1996, pg. 471) faculty stress is "that which occurs when one perceives that the demands of the environment to clearly exceed one's resources to handle them." Gmelch (1993) addressed faculty stress patterns, personality type, and outlined step-by-step change strategies to counter the effects of faculty stress in his book *Coping with Faculty Stress* (1993). Gmelch developed a 45-item survey, which after analysis factored out five distinct clusters that account for most of the faculty stress (Gmelch, 1993, pg. 26). His research showed that as faculty moved up in academic rank and years of teaching experience, not all areas of faculty stress declined, "only the stress from time constraints and professional identity declined with age and experience" (Gmelch, 1993, pg. 27).

Thorsen (1996) found that stress varied by rank and that women tended to be assistant or associate professors. Thorsen also found that associate professors had that greatest stress when compared to assistant or full professors. Scott Jaschik (2005) reported on a new study in which researchers looked at faculty stress levels by looking at the university's data. This study found that "women in the professoriate are more stressed out than men." Joanne Connors's (1991) study found that "women faculty reported significantly higher levels of stress."

Carolyn McCracken (2001) studied stress levels at community colleges in Tennessee using the FSI. She found that Caucasian "and tenured faculty reported significantly more stress in student interaction, but those in position less than three years measured significantly less stress. Tenured faculty and associate professors were significantly more pressured by time constraints than nontenured or other-ranked faculty."

One study by Jennifer McLean (2006) evaluated stress and job satisfaction among distance educators. This growing area of teaching has had very little research done about the stress factors when teaching at a distance. This study found that Gmelch's (1993) student interactions was the greatest source of stress for the faculty member teaching distance or in many cases online courses. McLean cautioned administrators that the distance educator feels tied to the student and instruction at the detriment of other faculty requirements such as service and research. In addition, remote faculty need to feel part of the on-campus department.

METHODOLOGY

The questionnaire, distributed to two southern colleges of business, was composed of several sections, including the Faculty Stress Index (Gmelch, 1993, pp. 21-23), five scale items on care-giving's career impact (Authors, 2004), ten scale items on the impact of technology's 24/7 demand on faculty time, questions about computer usage and specific technologies' usage in the future, and demographics.

RESULTS

A total of 54 surveys were returned by the end of March 2008, representing an overall response rate of 57.45%. Forty-two surveys were returned from the lead author's school (62.7% response rate), and 12 surveys were returned from the second author's school (44.44% response rate).

Thirty-four respondents (70.8%, 34/48) indicated that they were tenured or on tenure-track. The majority of respondents were Professors (17/51, 33.3%). Respondents' ages ranged from under 30 to over 65, with 11 (21.2%) falling within the 46-50 age category. Twenty-six out of 51 who answered the question (51%) reported having 16 or more years of teaching experience. About seven out of ten respondents were male (33/47). Over three-quarters of the faculty were married (41/52, 78.8%), while two-thirds had earned Ph.D.s (35/52, 67.3%). Over a third of the respondents taught in the Management field (20/52, 38.5%). Roughly a third of the respondents (19/53, 35.8%) reported that they teach online courses; of the 19, 10 teach more than 50% of the course online.

FACULTY STRESS INDEX ANALYSIS

Gmelch's original 45 items were subjected to factor analysis, which produced five final dimensions of stress factors based on 31 items (Gmelch, Wilkie, and Lovrich, 1986). Given the small sample size for this pretest, the authors were not able to conduct an exploratory factor analysis. The significant results from independent t tests and analyses of variance that are reported below are based on individual analyses of the 45 original items, plus one item we added (advising student clubs).

Fifteen out of the 46 items were identified as being significantly different among the business faculty based on tenure status. For all fifteen, non-tenure track faculty reported higher levels of stress/pressure, with means ranging from 1.923 (slightly more pressure) to 3.417 (moderately more pressure).

Three items were identified as being significantly different with regard to the faculty member's gender. For all three items, women reported higher levels of stress/pressure: (1) Assignment of duties that take me away from my office (2.692 vs. 1.813, $t = 2.019$, $df = 16.914$, $p = .06$, equal variances not assumed); (2) Being interrupted frequently by telephone calls and drop-in visitors (2.846 vs. 1.774, $t = 3.202$, $df = 42$, $p = .003$); and (3) Not having clear criteria for evaluating service activities (2.333 vs. 1.621, $t = 2.455$, $df = 36$, $p = .019$).

Six items were identified as being significantly different by whether the faculty member taught online classes or not. Faculty who taught online classes felt more pressure with regard to these statements: "Participating in work-related activities outside regular working hours" (3.176 vs. 2.20, $t = 2.965$, $df = 50$, $p = .005$); "Imposing excessively high self-expectations" (3.389 vs. 2.656, $t = 2.067$, $df = 48$, $p = .044$); "Frequently being requested to provide community services" (2.417 vs. 1.517, $t = 2.346$, $df = 14.337$, $p = .034$, equal variances not assumed); "Being unclear as to the scope and responsibilities of my job" (2.133 vs. 1.656, $t = 1.838$, $df = 45$, $p = .073$); and "Having job demands which interfere with other personal activities (recreation, family, and other interests)" (2.882 vs. 2.03, $t = 1.864$, $df = 23.974$, $p = .075$, equal variances not assumed). For the following

statement, those teaching online indicated they felt less stress: "Lacking congruency in institutional, departmental, and personal goals" (1.786 vs. 2.516, $t = -1.752$, $df = 43$, $p = .087$).

Three work-related situations were determined to be significantly different by age of the professor. Professors between the ages of 41 and 45 reported moderate pressure with regard to "Having inadequate time for teaching preparation" versus those younger than 36 or older than 60 (4.0 vs. 1.667 or lower, $F = 2.035$, $p = .067$). Professors between the ages of 36 and 45 and between the ages of 56 and 60 reported moderate pressure regarding "Having to teach subject matter for which I am not sufficiently prepared" versus those younger than 36 or older than 60 (3.0 vs. 1.5 or lower, $F = 2.083$, $p = .07$). Finally, professors between the ages of 36 and 40 reported moderate stress with regard to "Not having clear criteria for evaluation of research and publication activities" versus those over the age of 55 (3.5 vs. 1.5 or less, $F = 2.999$, $p = .014$, equal variances cannot be assumed, no robust tests available due to zero variance).

Ten work-related situations were deemed to be statistically significant by number of years professors have been teaching. Professors with less than six years of teaching experience experienced more stress or pressure with seven of the situations: "Having inadequate facilities (office, etc.)" (3.833 vs. 2.12 for those with 16+ years of experience, $F = 4.008$, $p = .013$); "Assignment of duties that take me away from my office" (3.167 vs. 1.731 for 16+, $F = 2.968$, $p = .042$); "Being interrupted frequently by telephone calls and drop-in visitors" (3.0 vs. 1.696 for 16+, $F = 2.652$, $p = .06$); "Resolving differences with students" (2.5 vs. 1.167 for those with 6-10 years, $F = 3.303$, $p = .028$, Welch $p = .02$, B-F $p = .052$); "Attending meetings which take up too much time" (3.667 vs. 2.0 for 6-10, $F = 2.96$, $p = .042$); "Resolving differences with my chair" (2.2 vs. 1.2 for 11+, $F = 3.001$, $p = .047$); and "Not having clear criteria for evaluation of research and publication activities" (3.0 vs. 1.526 for 16+, $F = 2.392$, $p = .086$).

Professors with 11 to 15 years of teaching experience indicated they have moderate levels of stress with regard to the following three items: "Having insufficient authority to perform my responsibilities" (3.0 vs. 1.2 for 6-10, $F = 3.295$, $p = .03$); "Having insufficient reward for institutional/departmental service" (3.0 vs. 1.5 for <6, $F = 2.323$, $p = .09$); and "Not knowing how my chair evaluates my performance" (3.333 vs. 1.278 for 16+, $F = 4.848$, $p = .007$).

Eight statements were determined to be statistically significant by teaching field; however, for two of the statements, the field having the higher stress level only had one respondent, so those findings are not reported here. Information Systems faculty reported the highest stress levels with regard to three statements: "Assignment of duties that take me away from my office" (4.5 vs. 1.5 for Accounting, $F = 2.573$, $p = .032$); "Having inadequate facilities (office, etc.)" (4.5 vs. 1.333 for Marketing, $F = 2.355$, $p = .048$); and "Being interrupted frequently by telephone calls and drop-in visitors" (4.0 vs. 1.429 for Economics, $F = 2.05$, $p = .08$). Information Systems and "Other" faculty had moderate stress with regard to: "Being drawn into conflict between colleagues" (3.0 vs. 1.2 for Marketing, $F = 2.139$, $p = .079$). Finance faculty had moderate pressure regarding "Having students evaluate my teaching performance" (4.0 vs. 2.0 for IS and Marketing, $F = 2.008$, $p = .085$). Finally, Finance and "Other" faculty had moderate levels of stress with "Preparing a manuscript for publication" (3.75 and 3.833 vs. 2.176 for Management, $F = 3.959$, $p = .005$).

DISCUSSION

Given the increased use of part-time and non-tenure-track faculty in higher education today, our results seem to indicate that the stress levels of these individuals are on the rise, at least among the business faculty at the two universities we studied. Heavier workloads and time demands, perhaps on top of normal non-academic employment expectations, have resulted in greater stress levels among these particular faculty members.

Only three differences were identified by gender, which was lower than what we'd expected. However, along the lines of our expectations, women did experience higher stress levels for the items that were significant. Non-teaching duties and the lack of clear expectations regarding service were the tension points for women faculty.

Those faculty engaged in online teaching tended to experience more stress, which we were expecting to see. The tension points seem to center around job expectations and interference with activities. Online faculty members apparently feel that they are spending extra time in preparing and teaching classes online, and to be called away to other duties without any acknowledgement of the extra time demands they face can be irritating.

Frustration and stress among faculty at the lead author's school appears to revolve around program uncertainties and changes, poorly prepared students, and the demands of research. Younger professors, in general, also felt the stress from the demands of research. Professors with less years of teaching experience also reported stress from research demands, plus inadequate facilities, interruptions and student issues.

As with any academic or practitioner research, there are limitations to this study. The results are based on a pretest at only two universities, and both universities are in one southern state. The sample size precluded the proper analysis of Gmelch's FSI items via factor analysis, and item-by-item analysis using t tests and ANOVA is weaker as a result. Any conclusions are preliminary at best. The authors will be conducting a broader series of studies, with an expanded sample, albeit one of convenience and self-selection, among universities around the country and including not just business faculty but also nursing and hopefully, other faculty members from other disciplines.

REFERENCES

- Authors (2004). An Exploratory Study of the Impact of Family & Technology Issues on Sales Careers with a Focus on Gender Differences. *Academy of Marketing Studies Journal*, 8(1), 49-60.
- Connors, Joanne Victoria (1991). Gender Differences in Perceived Advancement Problems, Stress, Interpersonal Stress, and Satisfaction of University Faculty. Dissertation. Source: DAI_A 51/08.
- Endres, Frederick and Stanley Wearden (1996). Job-Related Stress Among Mass Communication Faculty. *Journalism and Mass Communication Educator*, 51(3), 32-44.
- Fisher, Shirley (1992). Stress in Academic Life: the Mental Assembly Line. *Buckingham: The Society for Research into Higher Education and Open University Press*.
- Gmelch, Walter H. (1993). *Coping with Faculty Stress*, Newbury Park, CA: Sage Publications.

- Gmelch, Walter H., Phyllis Kay Wilkie, and Nicholas P. Lovrich (1986). Dimensions of Stress Among University Faculty: Factor-Analytic Results from a National Study. *Research in Higher Education*, 24(3), 266-86.
- Jaschik, Scott (2005). Stress and the Female Faculty Member. *Inside Higher Ed*. Accessed June 23, 2008 at <http://www.insidehighered.com/news/2005/08/23/stress>.
- Lambert, Richard and McCarthy, Christopher (Eds) (2007). *Understanding Teacher Stress in an Age of Accountability*. Information Age Publishing: Charlotte.
- McCracken, Carolyn G. (2001). *The Relationship between Stress Levels and Job Satisfaction among Community College Faculty in East Tennessee*. Dissertation, East Tennessee State University [ProQuest Abstract, accessed 2/27/08].
- McLean, Jennifer (2006). *Forgotten Faculty: Stress and Job Satisfaction Among Distance Educators*. *Online Journal of Distance Learning Administration*, VIX, NII, summer. Accessed June 23, 2008 from <http://www.westga.edu/~distance/ojdla/summer92/mclean92.htm>.
- Sanders, Thelma Smith Patterson (1990). *The Perceptions of Stress Among Faculty Members in Higher Education at Six Selected Tennessee State Board of Regents Universities*. Dissertation. Source: DAI_A 51/03.
- Stress Takes its Toll on our Teachers (2008). *Bristol Evening Post*. Jan 15, Accessed June 23, 2008 from <http://www.lexisnexis.com/us/Inacademic>.
- Thorsen, Elizabeth J. (1996). Stress in Academe: What Bothers Professors?. *Higher Education* 31. 471-489.

BECOMING A MORE EFFECTIVE MANAGER: REALITY VERSUS HYPE

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ABSTRACT

In organizations required to make a profit in a dynamic and globally changing environment, the strategic and management leadership requirement is for more effective managers who better understand the reality of achievement through others in an evolving world (Service and Arnott, 2006 cite some 500 sources attempting to prove this; and Welch, 2001). Unfortunately, management as is practiced in the money making businesses is not a requirement in some environments, such as politics, religion, health care, and education. Moreover, management within profit making organizations is often not highly effective. Thus, we often find individuals in profit and otherwise arenas who do not know how to manage well. We must begin to manage in education, religion, politics and the medical arena if we are to solve major societal issues. And, in for profits, effective management is a must if we are to generate the excess wealth necessary to support other areas that do not historically require monetary returns on investment. This requires information and knowledge beyond what is in most management text or courses.

This paper is not going to define success or failure in the problem arenas noted above. Instead, this paper's intent is to help less effective managers improve by showing the realities of historical managerial problems (realms and functions) that occur because of disconnects between the "is" of practical application versus the should be of theoretical education. Tough issues related to diversity, religion-the mother of all context, teaming, motivating, international management, innovation, communications, managing conflict and change, empowerment and more are addressed in this paper.

STUDENTS AS THE SIMULATION

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INTRODUCTION

As educators, we are greatly interested in ways to enhance the learning and retention of the material we present to our students. Research has shown that people learn best by doing and that repetition aids retention, so instructors strive to provide opportunities for their students to apply their newfound knowledge. Simulation and collaboration are two common means of achieving this goal - but are they enough?

Simulation software provides a competitive game within a given set of parameters in which the participants try to win using the information they have learned in the classroom. Often the instructor can manipulate the software to change simulation conditions in order to focus the students on the relevant topics. Though not entirely realistic, simulation gives students a safe outlet in which to practice applying the new material before entering the "real" world (Bovinet 2000).

Another way to enhance learning and retention is through collaboration. Collaborative learning procedures cause students to become more involved in their own learning and ignite their critical thinking and problem-solving skills (Alavi 1994). Students also learn about working with others in a group and can hone their communication and management skills. Collaboration offers students an opportunity to learn from each other and with each other. A positive side effect of collaboration is that it results in students evaluating their classes more favorably than those that use the traditional lecture method (Alavi 1994).

Another important consideration for the instructor is to present the information in a way that is conducive to the way their students normally take in information (Proserpio and Gioia 2007). A shift in presenting material in a more visual way occurred to accommodate the Generation X students because their generation depended on the television for information (Proserpio and Gioia 2007). Therefore, lectures were tailored to integrate more visual forms of media (i.e., PowerPoint presentations, videos, etc.). Now, the Internet age has caused a paradigm shift in learning using different media than used in the last five years. The student of today is from Generation Y. The media culture for this generation involves a lot more social interaction in a technological context. Thus, the current call for instructors is to present their material in a way that integrates this social environment (Proserpio and Gioia 2007). So, what do we do now? In answer to the questions raised, this instructor was challenged by a local promotion firm to have students beta test a new idea management software the firm had developed in a graduate-level Marketing Management class. This software is described by the firm as an intuitive capture device that captures text, images and video from the Internet, but more importantly allows the users to connect with one another in meaningful ways. Students could surf the web in their daily life. When they came across something relevant to their research, they could use this software to capture relevant information and paste it in their collection. Others can view the captures, add them to their own collections and/or comment about them. Thus, the software offers the social environment platform craved by the Generation Y

students. The firm positions the software as a simple solution to the complex issues of information management, organization and collaboration. The software would offer students the integration of the Internet as research-based as well as collaboration in a company product testing forum. So, in essence the students would not only participate IN the simulation, they WERE the simulation.

What could be a better way to balance your teaching and research than by guiding the students in conducting the research themselves and analyze the data collection tool they are using? Not only do they learn the concept of research using Internet media in social environment, they also provide feedback on the viability of the research tool - and help you get published, too!

Graduate-level students in two Marketing Management classes were given an assignment using the firm's beta idea management software. Each student was to capture information they came across on the Internet related to celebrity endorsers and the types of products they endorse. They were to use the software to collaborate with the other users to determine how the information should be organized. Once this was accomplished, each student was to write two papers. In one paper they were to report any patterns that emerged from the content analysis and how this would impact their choice of celebrity endorsers when they are marketing managers. This information was, in turn, used by the instructor in his/her research efforts. In the second paper they were to write about their experiences using the beta version of the idea management software to give to the firm. Students analyzed the new software and reported on its positive and negative attributes for the task at hand (the content analysis) to improve the software. Further, they recommend other academic and personal applications for the software. In addition to successful beta testing for the firm, relationships between the firm employees and the students were established. The employer walked away having successfully tested its new product and with student contacts.

Much was gained from this project. The students were given a fun and interactive way to do research that dovetailed with their specific media culture. They collected secondary type research from websites instead of using traditional documents. They were a part of the product testing stage of product development for new idea management software. They collected, organized and analyzed information using their own preferred media type. They also practiced collaboration with their peers and "real" businesspeople, conducted a content analysis, and studied the use of celebrities in promotional messages. Using the student as both the user of the simulation and as the actual simulation offers a new way for students to study in a way that is comfortable to them thereby enhancing learning, retention and its application.

REFERENCES

- Alavi, Maryam (1994), "Computer-Mediated Collaborative Learning: An Empirical Evaluation," *MIS Quarterly*, June, 159-174.
- Bonivet, James W. (2000), "Interdisciplinary Teaching Combined with Computer-Based Simulation: A Descriptive Model," *Marketing Education Review*, 10 (3), 53-62.
- Proserpio, Luigi and Dennis A. Gioia (2007), "Teaching the Virtual Generation," *Academy of Management Learning and Education*, 6 (1), 69-80.

BUSINESS SCHOOL ADMINISTRATORS' AND FACULTY PERCEPTIONS OF ONLINE LEARNING: A COMPARATIVE STUDY

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ABSTRACT

In this paper, the authors compare business school administrators' and faculty perceptions of online learning. Specifically, a survey was given to a random sample of 1,000 business school administrators throughout the United States. A slightly modified survey, tailored to business school faculty, was mailed to a random sample of 1,175 business faculty members throughout the United States. Comparison of the results from each group showed significant differences between the administrators' and faculty perceptions of online learning on eight of eighteen statements. Since many universities are still deciding the extent of their offerings of such courses, this information may be helpful to university administrators in deciding which types of courses at their universities might be offered online. Faculty who are considering teaching one or more online courses may find the results of this study helpful in structuring these online offerings.

Administrators need to be aware of the perceptions, concerns, and indeed, the anxieties of both their peers and faculty in order to enhance the likelihood that online courses will be viewed as valuable, and valued, by both constituencies. If administrators can effectively communicate the benefits perceived by their peers and faculty, while belaying the concerns of these groups, then the probability of a successful outcome will be enhanced. Online learning may not be for everyone - including both administrators and faculty - but a clearer grasp of administrator and faculty perceptions may go a long way in contributing to making the online experience a positive one for all who pursue it.

INTRODUCTION

The technological infrastructure needed to address the growing interest in online education is readily available, thus making the availability of online courses both economical and practical (Totaro et al., 2005). This study compares business school administrators' perceptions of online learning and business faculty perceptions of online learning and administrator's perceptions of online learning. Business school administrators and business faculty are from various disciplines, such as accounting, economics, finance, management, management information systems, and marketing.

MOTIVATION FOR STUDY

Prior research has focused separately on student attitudes (Tanner, Noser, and Langford, 2003; Tanner et al., 2004-1, 2004-2; Tanner et al., 2006), faculty attitudes (Totaro et al., 2005), and administrator attitudes (Tanner et al., 2008). Commitment by administrators and faculty is essential to the success of online learning; thus, the present study attempts to bridge the two by comparing attitudes about and perceptions of online learning between administrators and faculty.

METHODOLOGY

A questionnaire was developed to determine the attitudes of business school administrators toward online courses. This questionnaire was very similar to those given to students (Tanner, Noser, and Langford, 2003; Tanner, Noser, Fuselier, and Totaro, 2004-1; Tanner, Noser, Fuselier, and Totaro, 2004-2) and faculty (Totaro, Tanner, Noser, Fitzgerald, and Birch, 2005). The only modifications made were to tailor some of the questions to administrators and faculty. The questionnaire was then given to a simple random sample of one thousand (1,000) business school administrators throughout the United States. In addition to demographic questions on gender, academic rank, current administrative position held, academic experience (both in teaching and as administrators), tenure status, and whether or not the administrator had ever taught an online course, as well as the academic area in which the class was taught, and the maximum enrollment in online classes at their institutions. Additionally, there were also eighteen (18) Likert-type questions concerning online courses and related statements with which the administrators could express various levels of agreement or disagreement (1=Strongly Agree; 2=Agree; 3=Neither Agree nor Disagree; 4=Disagree; 5=Strongly Disagree). Usable questionnaires were returned by 152 respondents, representing a response rate of more than 15 percent, which is within the acceptable response rate, according to a widely-cited source on survey research (Alreck and Settle, 2004).

In order to also assess the perceptions of business faculty toward online courses, the above-mentioned instrument, tailored for faculty, was given to a random sample of 1,175 faculty members throughout the United States (approximately an equal number in each of the following areas: accounting, economics, finance, management, management information systems, and marketing). Usable questionnaires were returned by 204 respondents, again within the acceptable response rate mentioned above.

RESULTS

In order to assess differences in perceptions of online courses by the administrators and faculty respondents, significance tests were performed, and the results are shown in Table 1. As the table shows, significant differences between the perceptions of administrators and faculty members were found on eight of the eighteen statements. The faculty exhibited a significantly higher level of agreement with the statement that the interaction and/or lectures are greater in a regular classroom than in an online setting. Faculty also felt more strongly than administrators that face-to-face interaction between students and their instructor outside the classroom is important for college classes. Additionally, faculty more strongly disagreed that the lack of a required classroom in an

online course appealed to them, and with the statement that as many online classes as possible should be offered in the future.

Faculty respondents also showed a greater level of agreement when asked if they would miss the face-to-face interaction with students in online classes. Additionally, when asked if the lack of face-to-face, student-to-student interaction associated with online classes would hinder the learning experience, faculty respondents again showed a significantly stronger level of agreement. Faculty also agreed more strongly that online tests are more difficult to administer, and that online courses require students to teach themselves more than in a traditional class.

Both groups exhibited about the same level of agreement that the flexible class times in an online class is an advantage for the student and for the faculty. They also agreed that quantitative courses in online settings are among the most difficult for college students, but both were almost neutral as to whether or not more non-quantitative business courses should be offered online.

Both groups had about the same level of agreement that online course formats allow students to study at their own pace, and that online courses appeal to many students because such courses have no required, official classroom setting. Both groups also agreed that the textbook is more important in an online class than in a traditional class, and that online courses require more self-discipline by students than traditional courses.

With respect to disagreement, both groups disagreed that online tests are more difficult for students. Lastly, both groups exhibited the same level of slight disagreement with the statement that the technology required for an online class adds to the educational value of the online experience, administrators being essentially neutral on this issue.

REFERENCES

- Alreck, Pamela L., and Settle, R. (2004) *The Survey Research Handbook*, 3rd Edition, McGraw-Hill/Irwin, Homewood, IL.
- Tanner, J., Noser, T., Fuselier, J., and Totaro, M. (2004-1) "The Online 'Classroom': Differences in Perception between Business Students and Non-Business Students," *Journal of College Teaching and Learning*, Vol. 1, No. 3, pp. 37-44.
- Tanner, J., Noser, T., Fuselier, J., and Totaro, M. (2004-2) "The Online 'Classroom': What Do Students Think?" *Journal of Informatics Education Research*, Vol. 6, No. 1, pp. 43-54.
- Tanner, J., Noser, T., and Langford, H. (2003) "Perceptions of Undergraduate Business Students Toward Online Courses In Higher Education Expanded and Revisited: Do Gender, Age, and/or Past Experiences Make a Difference?" *Journal of Business and Economics Research*, Vol. 1, No. 2, pp. 13-20.
- Tanner, J., Noser, T., Totaro, M., and Birch, R. (2006) "Student Perceptions of The Online 'Classroom': An Update," *International Business & Economics Research Journal*, Vol. 5, No. 10, pp. 31-38.
- Tanner, J., Noser, T., Totaro, M., and Bruno, M. (2008) "Perceptions of Online Learning by Business School Administrators," *Proceedings of The International Academy of Business and Public Administration Disciplines (IABPAD) Spring Conference*, Dallas, Texas, April 24-27, 2008.
- Totaro, M., Tanner, J., Noser, T., Fitzgerald, J., and Birch, R. (2005) "Faculty Perceptions of Distance Education Courses: A Survey," *Journal of College Teaching & Learning*, Vol. 2, No. 7, pp. 13-20.

Table 1
Results of Comparisons of Attitudes of Administrators vs. Faculty Respondents toward Online Course Offerings and Related

Likert Statements	Means*		Standard Deviations*		t-stat	p-value
	Administrators	Faculty	Administrators	Faculty		
1. One of the advantages, for the student, of taking an online course, is that class times are flexible.	1.54	1.62	1.08	1.09	-0.224	.470
2. One of the advantages, for the instructor, of teaching an online course, is that class times are flexible.	2.49	2.42	1.35	1.322	0.457	.648
3. The interaction and/or lectures with the instructor are greater in a regular classroom setting than in an online class.	2.75	2.22	1.35	1.35	3.611	.000**
4. Quantitative courses in an online setting are among the most difficult for college students.	2.59	2.42	1.12	1.21	1.302	.194
5. The online course format allows students to study at their own pace.	2.46	2.38	1.21	1.04	0.108	.544
6. More non-quantitative business courses should be offered online.	3.07	2.98	1.04	1.22	0.714	.476
7. Face-to-face interaction between students and their instructor outside the classroom is important for college classes.	2.27	2.00	1.15	1.21	2.129	.034**
8. The fact that an online course has no required classroom setting appeals to me.	3.30	3.81	1.12	1.06	-4.350	.000**
9. Online courses appeal to students because there is no required classroom setting.	2.38	2.48	1.08	1.10	-0.849	.396
10. In the future, our college should offer as many online classes as possible	3.66	4.20	1.23	1.15	-4.196	.000**

*1 = Strongly Agree; 2 = Agree; 3 = Neither Agree nor Disagree; 4 = Disagree; 5 = Strongly Disagree

**Significant at .05 or less level

Table 1 (cont'd.)
Results of Comparisons of Attitudes of Administrators vs. Faculty Respondents toward Online Course Offerings and Related

Likert Statements	Means*		Standard Deviations*		t-stat	p-value
	Administrators	Faculty	Administrators	Faculty		
11. I believe that faculty would miss the face-to-face interaction with students in an online class.	2.11	1.84	1.11	1.18	2.172	.031**
12. The lack of face-to-face, student-to-student interaction in an online class would hinder the learning experience.	2.54	2.14	1.20	1.16	3.081	.002**
13. The textbook is more crucial in an online class than in a traditional class.	2.55	2.33	1.20	1.06	1.810	.071
14. Tests in an online course are more difficult for students.	3.25	3.16	0.91	0.88	-0.878	.381
15. Tests in an online course are more difficult to administer.	2.78	2.42	1.35	1.21	2.542	.011**
16. Online courses require the students to teach themselves the material more so than in a "traditional" in-class course.	2.43	2.02	1.24	0.98	3.439	.001**
17. The technology required to take an online course increases the educational value of the experience.	3.01	3.18	1.03	1.15	-1.364	.173
18. Online courses require the student to be more self-disciplined than in traditional courses.	1.92	1.99	1.10	1.14	-0.574	.566

HOW BUSINESS STUDENTS SPEND THEIR TIME-DO THEY REALLY KNOW?

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ABSTRACT

The purpose of this paper is to determine how students majoring in some area of business spend their time, relative to how they think they spend their time. In order to assess this gap, undergraduate business students who were enrolled in the first or second business statistics course at a regional southern university were required to record in a logbook, for a period of one week, the number of hours they spent using YouTube, FaceBook, MySpace, the number of hours they watched TV, the number of hours spent studying, as well as several other items. Students in the statistics classes were chosen because all business students, regardless of their major, have to take these courses, and the researchers felt that this was the best way to get a representative group of all business majors. Data was collected from a total of 212 business majors. Additionally, before they started this one-week period, the students were asked to determine, to the best of their abilities, the amounts of time they thought they spent on these activities. Tests of significance revealed ten (10) significant differences between the actual time spent on the activities selected, and the pre-conceived estimate of time spent on these activities. On nine of these significant differences, the students thought they spent more time on the specific activity than they actually did. This would seem to indicate that students need to improve their time management skills. For example, students estimated that they spent more than 1.5 times more time using FaceBook and MySpace than they actually did, and estimated twice as much on Moodle (an open source course management system) as they actually did.

Our findings should be of value to students, faculty, and advisors. It is very likely that many students are unaware of such differences, and if they can be made aware of them, by either faculty or advisors, or both, it should result in higher academic performance by the students. The results may also lead to students devoting more attention to developing their time management skills, which should enhance their personal development, and even their collaborative learning skills.

INTRODUCTION

Today's college student has access to technologies that might have seemed virtually "science fiction" a mere 20 years ago. The Internet, WWW, cell phones, iPhones, and iPods are only part of

a vast array of potential distractions to today's college students, who spend less time studying than their predecessors (Nonis and Hudson, 2006). The ubiquity of such technologies suggests that college students may in fact be unaware of these distractions. The purpose of this paper is to determine how students majoring in some area of business spend their time, relative to how they think they spend their time. Our approach involves analyzing information collected by students by means of a logbook, a method which is similar to that of Nonis, Philhours, and Hudson (2006), and Budden et al. (2007), both of which required the use of a diary by students.

MOTIVATION FOR STUDY

It is likely that many students are unaware of possible differences between how they spend their time, and how they think they spend their time. Such a perception gap may lead to a lower academic performance by students, because, according to one study at least, there is a relationship between study time and college outcomes (Stinebrickner and Stinebrickner, 2004). If students can be made aware of such a perception gap, by either faculty or advisors, or both, it should result in higher academic performance by the students. Moreover, results of such a study may also lead to students devoting more attention to developing their time management skills, which should enhance their personal development, and even their collaborative learning skills.

METHODOLOGY

The purpose of this paper is to determine how students majoring in some area of business spend their time, relative to how they think they spend their time. In order to assess this, undergraduate business students enrolled in the first or second business statistics course at UL-Lafayette were required to record in a logbook, for a period of one week, the number of hours they spent using YouTube, FaceBook, MySpace, the number of hours they watched TV, the number of hours spent studying, as well as several other items. The reason these students in these classes were chosen was because all business students, regardless of their major have to take these courses, and the researchers felt that this was the best way to get a representative group across majors. Data was collected from a total of 212 business majors. Additionally, before they started this one-week period, the students were asked to determine, to the best of their abilities, the amounts of time they thought they spent on these activities.

RESULTS

Table 1 shows the demographic characteristics of the students. As can be seen from the table, more than 53 percent of the respondents were males. With respect to race or ethnic origin, more than 84 percent were Caucasians. The majority student respondents were classified as juniors and seniors, and almost 69 percent had a grade-point average of 2.80/4.00 or higher. The average age was slightly over 22 years old.

As mentioned previously, tests of significance were used to determine if there were significant differences between the amount of time the students thought they spent on certain activities per week, and the actual amount of time they did spend on these activities. These results

are shown in Table 2. As the table shows, ten (10) significant differences were found between the actual time spent on the activities selected, and the pre-conceived estimate of time spent on these activities. On nine of these significant differences, the students thought they spent more time on the specific activity than they actually did. This would seem to indicate that students need to improve their time management skills. For example, students estimated that they spent more than 1.5 times more time using FaceBook and MySpace, than they actually did and twice as much on Moodle (an open source course management system) as they actually did.

While they watched television about the same amount of time as they thought they did, the alarming aspect of this activity is that they watched television more than they studied, even though they studied significantly more than they thought they were studying. Along these same lines, they spent about as much time at work as they thought, but this time spent was again much more than the amount of time spent studying.

With respect to the use of the Internet for academics, shopping, recreation, or work, the students again thought they used the Internet for each of these activities more than they actually did use them. In fact, they thought they used the Internet for academics 2.8 more times than they actually did, the Internet for shopping 3.27 times more than they actually did, Internet for recreation 1.95 more times than they actually did, and Internet for work 2.88 times more than they actually did. While actual usage of Internet for each of these activities was not exceptionally high, the fact remains that their forecasts of time used were significantly off. As was stated earlier, they actually studied 1.3 times more than they thought they did. However, the respondents went to class significantly less (1.25 times less) than they thought they did. Specifically, they thought they were attending classes for about fifteen hours per week, when in fact they only attended about twelve hours per week.

CONCLUSION AND FUTURE WORK

Results of this study suggest that undergraduate business students, without realizing it, may be sacrificing some aspects of their academics and study time, due mostly to contemporary "technological distractions," such as YouTube, FaceBook, and other similar WWW technologies. Our results may serve as motivation to these and other undergraduate business students to increase their awareness about and make improvements in how they make use of their time. Additionally, business faculty may find our results useful, since a realistic understanding about students' use of their time might serve to motivate discussion about the importance of good time management as important to success in a college course.

Future work might include an assessment of faculty perceptions of how they think students actually spend their time during a typical quarter or semester. Moreover, it may be interesting to compare such faculty perceptions against measures of how students actually spend their time.

REFERENCES

- Budden, C., Anthony, J., Budden, M., and Jones, M. (2007) "Managing The Evolution Of A Revolution: Marketing Implications Of Internet Media Usage Among College Students," *College Teaching Methods & Styles Journal*, Vol. 3, No. 3, pp. 5-10.

Nonis, S. and Hudson, G. (2006) "Academic Performance of College Students: Influence of Time Spent Studying and Working," *Journal of Education for Business*, Vol. 81, No. 3, pp. 151-159.

Nonis, S., Philhours, M., and Hudson, G. (2006) "Where Does the Time Go? A Diary Approach to Business and Marketing Students' Time Use," *Journal of Marketing Education*, Vol. 28, No. 2, pp. 121-134.

Stinebrickner, R. and Stinebrickner, T. (2004) "Time-Use and College Outcomes," *Journal of Econometrics*, Vol. 121, No. 1-2, pp. 243-269.

Variable	Percent of Respondents
Gender:	
Male	53.3%
Female	46.7%
College Classification:	
Freshman	0.5%
Sophomore	10.9%
Junior	58.1%
Senior	30.5%
Race/Ethnic Origin:	
Caucasian	84.9%
African-American	10.9%
Hispanic/Hispanic-American	1.4%
Asian/Asian-American	1.4%
Other	1.4%
Grade-Point Average:	
2.00 - 2.39	8.5%
2.40 - 2.79	22.6%
2.80 - 3.19	34.9%
3.20 - 3.59	22.2%
3.60 - 4.00	11.8%
Age:	

Variable	Percent of Respondents
Range	19 to 50
Average Age	22.33
Median Age	21.00

Activity	Actual Time Spent		Perceived Time Spent		t-stat	p-value
	Means*	Std. Devs.*	Means*	Std. Devs.*		
1. Hours spent using You tube	0.49	2.04	0.66	1.42	-1.01	.314
2. Hours spent on FaceBook	1.06	2.01	1.64	2.63	-3.40	.000**
3. Hours spent on MySpace	0.85	1.72	1.32	2.88	-2.88	.004**
4. Hours spent on Moodle	1.40	2.18	2.83	2.59	-7.18	.000**
5. Hours spent watching TV	10.89	8.98	10.59	10.16	0.47	.640
6. Hours spent listening to the Radio	5.44	7.70	7.75	10.15	-3.61	.000**
7. Hours spent using the Internet for Academics	1.29	2.15	3.66	3.74	-8.43	.000**
8. Hours spent using the Internet for Shopping	0.33	0.86	1.08	1.76	-6.03	.000**
9. Hours spent using the Internet for Recreation	2.47	5.05	4.82	7.84	-5.27	.000**
10. Hours spent using the Internet for Work	0.86	3.98	2.48	5.95	-4.01	.000**
11. Hours spent Studying	9.66	6.62	7.40	6.57	4.58	.000**
12. Hours spent in Class	12.20	3.52	15.37	7.43	-6.37	.000**
13. Hours spent at Work	20.51	15.51	19.00	12.06	1.89	.060
*Hours Spent in One Week						
**Significant at $\alpha = .05$						

ATTITUDES TOWARD TEAMWORK IN HIGHER EDUCATION: A COMPARATIVE STUDY OF RELIGIOUSLY AFFILIATED UNIVERSITIES AND SECULAR-BASED UNIVERSITIES

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ABSTRACT

This research focuses on students' preferences for team-based assignments. It is no surprise that as many industries began using teams to solve problems that universities would adopt team-based assignments to simulate the "real world" to the best of the academicians' abilities. While team-based assignments clearly have become accepted (i.e., preferred) pedagogy for many business programs, it does have its flaws as are pointed out in this article. The authors desire to shed light on improving the implementation of teamwork since it is not likely to be removed from the professor's toolbox. The more poignant question investigated is whether students at religiously-affiliated universities demonstrated a higher proclivity for teamwork than students at secular-based schools. This investigation caused the authors to apply the individualistic versus collectivistic paradigm to the formation of teams. While the research suggests that students in religiously-affiliated schools did not demonstrate a preference for teamwork at a higher rate than secular-based students, the authors offer some suggestions for professors who utilize teams as an integral part of classroom instruction.

INTRODUCTION

Before taking a position as a professor, one of the authors was a small business entrepreneur followed by twenty years in corporate management and industrial marketing. Based on his work experience, he found that business believes teamwork (e.g., project-based, cross-functional teams) is an effective tool and practices this belief extensively. He now incorporates group projects into every course he teaches with a minimum of 20 percent of the final grade from the team grade. In a frank, open discussion within his strategic management course, he heard dissatisfaction, in general, with team projects and team grades. In response, he completed an initial simple survey with 25 students that showed a tendency for older students and higher grade point average (GPA) students to have less preference for teamwork. The major concern of the students was the issue of "free riders" (the same problem exists in business practice). Other factors probably exist as well. Some discussions with colleagues at several business programs led him to believe this to be an important and researchable topic.

Still another author has taught graduate level strategic marketing as an on-ground and distance course more than a dozen times. Students had to rely on extensive teamwork to become successful in this course where 70 percent of overall grade was based on teamwork (e.g., simulation, projects and presentations). The senior author has taught at the college-level more than twenty-five years. For over twenty of those years, he has taught the capstone course, business policy, using the primary pedagogy of teams. His experience taught him that while a student working in teams is a must, there are significant challenges to tweak this pedagogical tool.

This is an exploratory subject for understanding preference for teamwork within student groups in collegiate business programs at religiously-affiliated schools versus secularly-based schools. It was decided to survey junior and senior business majors and graduate students who have participated in a number of teams during their academic careers.

Rationale for Study

One especially realizes the relevance of studying students' preference for teamwork when one considers the relationship between the prevalence of teamwork in corporate America and its relationship to rewards. Educators hope that teamwork is effective pedagogy. Consider Jones' (1996) answer to the critics regarding the use of teams in the classroom. He suggests that one only use teams to empower the process of educating students and helping them learn content, teaching them how to learn, and building a lifelong desire to learn.

It has been witnessed that the increasing attention given to establishing teams as an acceptable pedagogical tool over the individualist assignments of the past. Presumably this prepares students for the "real world." This perspective is supported by Holloway (pp. 91-92, 2004), "When employers are asked what qualities will best prepare students for the modern workplace; they often mention teamwork – the ability to cooperate and communicate with others to reach common goals." Page and Donelan (2003) echo the same notion and identified interpersonal skills as a core competency for the business professional.

McGuire (1998) says that people have formed groups throughout history and that groups provide the basis for family living, protection, government, recreation and work. Further, McGuire (1998) foreshadows the well-known five stages of group formation: forming, storming, norming, performing, and adjourning (Joy-Matthews and Gladstone, 2000). McGuire (1998) suggests that group behavior ranges from total confusion to increasing unity and success. Finally, he suggests that groups enjoy their greatest success when they become more productive units – teams.

Teamwork Basics Reviewed

Before investigating students' preference for working in teams, consider this brief review of teamwork basics. It is generally accepted that all groups go through the forming, storming, norming, performing, and transforming stages. The forming stage may happen by assignment or self-selection. Storming will no doubt take place quickly in that the typical semester is only fifteen weeks long. This phase is typically characterized by students becoming familiar with one another's personalities and abilities (Vik, 2001). During the norming phase, students settle down to get the work done and start to function as a team; furthermore, students become productive in the

performing stage and generate the case research and solution. Vik (2001) contends that not all teams will get to this stage.

Team selection can either be forced by the professor in a stratified manner to insure a balance of academic talent in each team or the students can self-select. One can always assign the teams to avoid concentration of academic talent, or in the worse case scenario, the concentration of the less talented or those less motivated. Other criteria used are gender, diversity, and academic experience.

It is self-evident that teams require cooperation if the team is going to reach its maximum potential. Wagner (1995) defines cooperation as people agreeing to work together to accomplish a task involving interdependent jobs. Further, he suggests that such cooperation is a must when different types of tasks have to be synchronized. Wagner (1995) asserts that individualist people will only work in groups when it is to their distinct advantage to do so and when working alone will not result in accomplishment of a personal goal; furthermore, he says that the individualist will work to further group goals due to the tradeoff between group goals and personal goals. He holds the opposite to be true in collectivists who actively seek to meet group goals even at the expense of personal goals.

Wagner (1995) completed an excellent literature review on individualistic-collectivistic orientation. First, he found that individuals look after themselves and will ignore group interests if those interests are incompatible with personal desires. Next, he asserted that collectivism places the wants and needs of the group above personal wants and needs. Predictably, he indicated that one's cooperation in a group may be affected by one's tendency toward individualism or collectivism. Fourthly, he maintained that individualists may only work in group settings if it is beneficial in reaching personal goals for personal gain that could not be accomplished alone. He concluded by saying that group effort and group goals were preferred to individual effort and individual goals.

This calls into question the relationship between cooperation and the individualism-collectivism continuum. A cursory understanding of individualism and collectivism is called for. Individualism, as the name implies, is characterized by the will of the person to look after and pursue his/her own personal interest with little regard for the success of the group. The person characterized by collectivism is more likely to pursue group interests at the expense of personal interests. One will readily see the influence of a collectivist society in command economies and an individualistic perspective in economies that encourage the entrepreneurial spirit via capitalism. As one reads Max Weber's (1958) *The Protestant Ethic and the Spirit of Capitalism*, one will see the focus on individualism. Weber fleshes out the connection, as he sees it, between individualism and Protestants. However, and most poignant to this study, recent research (Lynch, M., 2001) suggests that one can not assume that Christianity and individualism are inextricably linked.

Hofstede (1980) made rather succinct contrasts between individualistic cultures and collectivistic cultures. Individualistic countries encourage individual initiative while collectivist countries tend to discourage it. People are often thought of as part of a group in collectivist countries and are thought of as individuals in individualistic countries where relationships are specific and not formed as part of the group in collectivistic countries. It can be summed this way: in collectivistic cultures, emphasis is on a collective or group orientation in everything from relationships to work to decisions to identity. In individualistic countries, the individual is the defining characteristic where leadership is ideal rather than membership as it is in the collectivistic culture (Hofstede, 1980).

According to Hofstede (1980), the norm prevalent in a given society will affect the relationship between a person and the organization to which she/he belongs. Collectivist societies tend to look to the organization for emotional support while in individualistic countries individuals tend to look to themselves. In his research, one of the highest individualistic countries was the United States of America with a score of 91 while Japan, a collectivist country, scored 46. Employees in individualistic countries tend to look at individual decisions as being of higher quality than group decisions and collectivistic societies tend to view group decisions as being better.

Sosik and Dong (2002) conducted a longitudinal study of the effects of culture, the individualism-collectivism scale, using United States students and Korean students as subjects. The methodology utilized 83 work groups who performed two decision-making tasks over a 15-week period. Interestingly, the individualists, or the U.S. students, experienced greater levels of functional heterogeneity and group potency and attained higher levels of group performance than did the collectivists, or Korean students. As a casual observer will note, industries are likely to focus on the performance indicator; therefore, we, as academicians, must continue to use teams as pedagogy.

Wagner (p.166, 1995) states:

[D]ifferences in individualism- collectivism have main and moderator effects on cooperation in groups. In particular, the aspect of individualism-collectivism that concerns differences in personal independence and self-reliance has a direct effect: individualists who feel independent and self-reliant are less apt to engage in cooperative behavior, and collectivists who feel interdependent and reliant on groups are more likely to behave cooperatively.

In conclusion, this study substantiates the idea that variation individualism-collectivism can have effects, within a single societal culture, on cooperation in groups, and that these effects can extend and modify the influence of factors often analyzed in research on free riding and social loafing (Wagner, p.168, 1995).

Sosik and Dong (2002) indicate that preference for teamwork corresponds to the group members' level of comfort and satisfaction in working collectively, rather than individually.

While some may stereotype the U.S. as individualistic, one must take caution as Christopher Lynch (2001) warns. It is easy to stereotype all U.S. citizens as being out for themselves as evidenced by a strong individualistic score supplied by Hofstede (1980). However, Christopher Lynch (2000) cautions against assuming that all, to include Christians, are singularly individualistic. He offers Christ's admonition from Scripture that while we all have our own identity with special talents and abilities, it takes all of us to make the whole. Additionally, this provides the team member to demonstrate his/her concern for others. It is the compassion shown that will speak to team members. One sees the suggestion that all work together while exercising individuality. Thus, this researcher suggests that it is valuable to examine the views of students attending religious-affiliated schools compared to secular-based schools. Support for this notion is found in Sampson (2000) which suggests that the idea of individualism and collectivism be revisited. Further, he believes that one is likely to see characteristics of individualism within collectivism and characteristics of collectivism within individualism. Therefore, the purpose of this current research is to investigate this notion within the context of students' preferences for teamwork. Even though the U.S. rates highly on the Hofstede (1980) scale for individualism, the researchers question

whether Christian-based schools demonstrate collectivistic tendencies more so, due to their religious beliefs, than secular-based schools.

Challenges for Teamwork

While teamwork is essential, it is not without its problems and naysayers. Eva (2002) admits that working in teams is effective in some situations but reminds the reader that a team is merely a means to an end with the potential advantages of a broader variety of perspectives, sharing of responsibilities, flexibility in the use of talent, and synergy that motivates group members. Eva (2002) opined that the evidence is unclear that teams generate better solutions either intellectually or creatively and concluded that teams ought to be used only when unique skills reside in the assembled group.

According to Vik (2001), teams present challenges to the educational enterprise. For example, students may not work together as a team at all but work on case sections individually and then assemble the case in a somewhat disjointed manner. Another difficulty is social loafing or just not doing the work at all. In the two decades, for example, that one of the authors has taught a case-oriented class where teams solve the case and present the solution to the class, he can confidently say that teams routinely complain of social loafing by team members. This provides an opportunity for professors in religiously-affiliated schools to admonish students to illustrate the love of Christ for one another to share each other's burdens as well as to heed Scriptural warnings against laziness. Another problem Vik (2001) and others have noticed is the tendency for teams to ask for too much assistance from the professor for solving conflicts within the team as well as too much assistance in solving the case. Buckenmyer (2000) summed up the challenges experienced in the undergraduate classroom as social loafing, differing values where some team members settle for minimum performance and others perform at an especially high level, and disproportionate work loads.

An interesting study by Ariely and Wertenbroch (2002) addressed a typical problem with teams: procrastination. They found that deadlines imposed by an external force, the professor, are more effective than self-imposed deadlines. Additionally, they found that performance followed suit and was not as robust with self-imposed deadlines than deadlines set by an external force that were evenly spaced out over a reasonable timeline. Also, the worse results were experienced when deadlines were deferred as much as possible. Vermette (1994) stated that motivated learners tend to resent working in teams due to less talented peers not willing to work with the same level of intensity.

The Current Investigation

While various dimensions of teams and team work have been investigated, it appeared to these researchers that not much attention has been directed toward students' preference for team work and even less directed at secular-based versus religious-based students' preferences for team work. Therefore, we propose the following hypotheses:

H₁: Students attending religiously affiliated universities will have a higher propensity for working in teams than will students attending secular-based universities.

H₂: Students aged more than 25 years old will value teamwork more than their younger classmates who are less than or equal to 25 years old.

METHOD

Data for the current study have been collected from business students at nine different universities. The total usable sample size was 843 (Table 1). The students have attended either a religiously affiliated university (118) or a secular-based university (725). Female and male respondents in the total sample held shares of 57.2 percent and 42.8 percent, respectively. In terms of ethnic origin, Caucasian-Americans held a majority share of 55.3 percent, while African-Americans having the second largest share of 35.5 percent. In terms of age distribution, respondents who were 25 years old or less had a share of 54.1 percent, while those who were older than 25 had a share of 45.9 percent, representing a relatively balanced distribution.

Table 1 – Demographic Description of Sample

Variable	Categories	Count	Percent
Gender	Female	482	57.2
	Male	361	42.8
Ethnic Origin	White	466	55.3
	African-American	299	35.5
	Hispanic	26	3.1
	Asian	12	1.4
	Other	40	4.7
Age	≤25	453	54.1
	>25	385	45.9
Student attends a school that's	Religiously Affiliated	118	14.0
	Not Religiously Affiliated	725	86.0

* Usable Total Sample Size = 843

Data were scanned for anomalies and possible data entry errors. Raw data were screened for potential patterns and missing values as well. Each observation was also tested for multivariate outliers by using a T² test based on the Mahalanobis distance of each point from the variable means. Limited number of multivariate outliers was eliminated from the data set, leaving the usable sample size of 843.

Two-sample t-test analyses were used to determine whether or not the means of the selected two respondent categories (e.g., students attending religiously affiliated/not religiously affiliated universities as well as students ≤25 years old/ students >25 years old) were statistically different at p levels of 0.01 and 0.05, respectively (Tables 2, 3 and 4). Before conducting any two-sample t-tests, tests of assumptions for normality and equal variances were investigated. In a normality assumption check, kurtosis values were stressed over the skewness and omnibus measures in the case of a

possible conflict. In an equal variance assumption check, a modified Levene statistic was underlined over the variance ratio statistic when there were conflicting cases between the two measures. When both normality and equal variance assumptions were satisfied, an equal variance t-test method was used to determine if the means of two categories are different. When the normality assumption was satisfied, but variances were not equal, an Aspin-Welch unequal-variance test was used. When the normality assumption did not work out, but variances were equal (or not), Mann-Whitney U and Wilcoxon rank-sum test for difference in medians were considered.

Table 2 – Descriptions of Teamwork Variables

Variable	Description
X1	The members of my teams varied widely in their areas of expertise
X2	The members of my teams had a variety of different backgrounds and experiences
X3	The members of my teams had skills and abilities that complement each other
X4	If given the choice, I would prefer to work as part of a team rather than work alone
X5	I find that working as a member of a team increases my ability to perform effectively
X6	I generally prefer to work as part of a team
X7	Only those who depend on themselves get ahead in life
X8	To be superior a person must stand alone
X9	If you want something done right, you've got to do it yourself
X10	What happens to me is my own doing
X11	In the long run, the only person you can count on is yourself

Table 3 – Descriptive Statistics

Variable	Religiously Affiliated		Not Religiously Affiliated		Age=25		Age>25	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
X1	4.84	1.14	5.28	1.27	4.95	1.19	5.53	1.28
X2	5.22	1.19	5.50	1.19	5.23	1.20	5.73	1.11
X3	4.91	1.19	5.27	1.30	4.98	1.20	5.49	1.34
X4	4.03	1.91	4.80	1.80	4.51	1.84	4.90	1.80
X5	4.25	1.73	4.91	1.59	4.64	1.62	5.02	1.60
X6	3.97	1.83	4.72	1.68	4.46	1.75	4.81	1.66
X7	3.38	1.63	3.31	1.72	3.55	1.68	3.04	1.70
X8	2.91	1.44	2.81	1.55	3.05	1.58	2.55	1.44
X9	4.15	1.61	3.77	1.63	4.22	1.58	3.37	1.59
X10	3.64	1.80	4.09	1.79	4.07	1.86	3.96	1.71
X11	4.33	1.40	4.75	1.50	4.65	1.50	4.74	1.49

* significantly higher means are highlighted in bold.

Table 4 – T-test Results

Variable	Religiously Affiliated versus Not Religiously Affiliated			Age=25 versus Age>25		
	T	t-test	p	T	t-test	p
X1	1	-3.541	0.000	2	-6.747	0.000
X2	1	-2.357	0.019	1	-6.146	0.000
X3	1	-2.809	0.005	2	-5.745	0.000
X4	3	-4.125	0.000	3	3.145	0.002
X5	3	-3.913	0.000	3	3.446	0.001
X6	3	-4.232	0.000	3	2.900	0.004
X7	1	0.426	0.670	3	-4.354	0.000
X8	1	0.664	0.507	1	4.752	0.000
X9	1	2.339	0.020	1	7.736	0.000
X10	3	-2.611	0.009	3	-0.757	0.449
X11	1	-2.854	0.004	1	-0.860	0.390

* Significant p values are highlighted in bold.

T=Type of the test used

1=Equal Variance t-test (t-values given in the table)

2=Unequal Variance Aspin-Welch Test (t-values given in the table)

3=Mann-Whitney U or Wilcoxon Rank-Sum Test (Z-values given in the table)

The chi-square statistic was utilized later to test independence between attitudes toward teamwork represented by eight different statements (row variable) on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) and age (age \leq 25 and age $>$ 25 as column variable) by respondents attending either a religiously affiliated university or a secular-based university (control variable) (Tables 5A, 5B and 5C). This test normally requires large sample sizes to be accurate. Given the sample size of 843, most of the cell value exceeded five. However, the total number of the respondents who were both older than 26 and attend a religiously-affiliated university was five and this is one of the limitations of the current exploratory study. We tested at the alpha = 0.05 and 0.01 levels of significance and statistically significant results for Pearson Chi-Square have been pointed out in bold numbers.

**Tables 5A Through 5C –
Cross Tabulations of School’s Religious Affiliation by Age (Age≤25 and Age>25)**

Table 5A		Age?25	Age>25	Total	
Religiously Affiliated	1.00	29.5%	60.0%	30.8%	
	Only those who depend on themselves get ahead in life.	2.00	25.0%	0%	23.9%
	3.00	20.5%	0%	19.7%	
	4.00	15.2%	20%	15.4%	
	5.00	9.8%	20%	10.3%	
	Total	112	5	112	
			100.0%	100.0%	100.0%
Not Religiously Affiliated	1.00	27.0%	41.1%	34.4%	
	Only those who depend on themselves get ahead in life.	2.00	23.2%	21.1%	22.1%
	3.00	22.3%	19.2%	20.7%	
	4.00	12.0%	8.9%	10.4%	
	5.00	15.5%	9.7%	12.5%	
	Total	341	380	721	
			100.0%	100.0%	100.0%
Pearson χ^2		Value	d.f.	Asymp. Sig. (2-sided)	
Religiously Affiliated		4.283	4	0.369	
Not Religiously Related		18.024	4	0.001	

Table 5C		Age?25	Age>25	Total	
Religiously Affiliated	1.00	17.9%	40.0%	18.8%	
	If you want something done right, you've got to do it yourself.	2.00	12.5%	0%	12.0%
	3.00	24.1%	0%	23.1%	
	4.00	25.0%	60.0%	26.5%	
	5.00	20.5%	0%	19.7%	
	Total	112	5	488	
			100.0%	100.0%	100.0%
Not Religiously Affiliated	1.00	14.7%	31.8%	23.7%	
	If you want something done right, you've got to do it yourself.	2.00	14.1%	18.2%	16.2%
	3.00	29.6%	27.6%	28.6%	
	4.00	22.3%	12.9%	17.3%	
	5.00	19.4%	9.5%	14.1%	
	Total	341	380	721	
			100.0%	100.0%	100.0%
Pearson χ^2		Value	d.f.	Asymp. Sig. (2-sided)	
Religiously Affiliated		6.318	4	0.177	
Not Religiously Related		46.007	4	0.000	

Table 5B		Age?25	Age>25	Total	
Religiously Affiliated	1.00	42.9%	60.0%	43.6%	
	2.00	24.1%	20.0%	23.9%	
	To be superior, a person must stand alone.	3.00	17.0%	0%	16.2%
	4.00	12.5%	0%	12.0%	
	5.00	3.6%	20.0%	4.3%	
	Total	112	5	117	
	Total	100.0%	100.0%	100.0%	
Not Religiously Affiliated	1.00	38.7%	53.9%	46.7%	
	2.00	22.6%	20.8%	21.6%	
	To be superior, a person must stand alone.	3.00	21.1%	17.1%	19.0%
	4.00	8.8%	3.9%	6.2%	
	5.00	8.8%	4.2%	6.4%	
	Total	341	380	721	
	Total	100.0%	100.0%	100.0%	
Pearson χ^2		Value	d.f.	Asymp. Sig. (2-sided)	
Religiously Affiliated		4.852	4	0.303	
Not Religiously Related		24.416	4	0.000	

RESULTS AND DISCUSSION

This study utilized eleven teamwork variables in understanding the attitudes toward teamwork in higher education (Table 2). Descriptive statistics (means and standard deviations) for all teamwork variables were provided in Table 3, while significantly higher means were highlighted in bold. T-test results indicated statistically significant results for all 18 cases with exception in four cases.

Students attending secular-based (not religiously affiliated) universities, on the contrary to our expectations, had more favorable attitudes toward teamwork than those attending religiously affiliated universities (Table 4). Specifically, students in secular-based universities said (1) if given the choice, they would prefer to work as part of a team rather than work alone; (2) they find that working as a member of a team increases their ability to perform effectively; and (3) they generally prefer to work as part of a team. In terms of the characteristics of teammates, those students, compared to students attending religiously affiliated universities, also said (1) the members of their teams varied widely in their areas of expertise; (2) the members of their teams had a variety of different backgrounds and experiences; and (3) the members of their teams had skills and abilities that complement each other. On the contrary to students attending a secular-based university, students attending religiously affiliated universities mentioned that if they want something done right, they must do it themselves. Students attending a secular-based university believe what happens to them is their own doing, and in the long run, the only people they can count on are themselves.

Initial findings seem to indicate that students attending religiously affiliated universities seem to have less favorable attitudes toward teamwork than students attending a secular-based university. However, this would be an indication of existence of some other important factors. We

selected age as one potentially important factor and did some chi-square analyses after collapsing 7-point Likert scales into 5-point Likert scales. The three variables for independent individualistic work rather than teamwork were found to be statistically significant at p values of 0.001 or 0.000 for those respondents who both are attending a secular-based university and are older than 25 years.

These variables were (1) only those who depend on themselves get ahead in life; (2) to be superior a person must stand alone; and (3) if you want something done right, you've got to do it yourself. Older respondents seemed to appreciate the value of teamwork much more than younger respondents. However, in our sample we did not have enough number of older students attending a religiously-affiliated university. Still the limited number of respondents attending a religiously-affiliated university leaned toward teamwork. In future research, after collecting data with a more representative sample, older students attending religiously affiliated universities and older students attending secular-based universities should be compared and it seems that it would support our first hypothesis when it is modified for age.

CONCLUSION

While Sampson (2000) suggests that the individualist may exhibit some collectivistic tendencies and the collectivist may exhibit some individualistic tendencies, this study did not demonstrate that students at religious schools demonstrated significantly different individualist behavior. However, the study supported the traditional view that the U.S. is highly individualistic in that all schools were U.S. domestic schools. Age appears to be a moderator that is worthy of further study. While the evidence is inconclusive in this study, there is a hint that age will moderate the preference for teams even in religious schools. Perhaps age with its attendant life experiences has greater influence than religious tendencies. Additionally, further study is needed to determine the moderation impact of training students how to work in teams. We did not control for that variable, thus creating another plausible explanation.

The professor who engages in team-based pedagogy should consider whether the class has preference for teamwork or not. This may indicate a shift in classroom pedagogy or introductory student training to work in effective use of teams. This does not suggest that team-based instruction be abandoned, but that professors take into consideration students' preferences for teamwork in the formation of the team as well as indicating the connection between the academic setting and the corporate setting. They will either learn to work in teams in the classroom setting or in their employment setting. Professors at religiously-based schools should include a number of generally accepted Christian principles in teamwork training. For example, one can address the opportunity to demonstrate Christian values such as caring for one another, sharing one another's burdens, stewardship of work opportunities, and a solid work ethic. Since the research suggests that students attending religiously-based schools are not as likely to demonstrate a preference for teamwork, the professor must illustrate the full integration of one's spiritual life to one's working life; these must not be compartmentalized. When students are engaged in their working lives, they must understand that their lives are their testimony.

Perhaps students' dislike for team-based assignments leads to conflicts mentioned earlier in this piece. Since students at religiously affiliated schools demonstrated greater dislike for teams, professors at these schools should take greater care in training students in the value of team

assignments as well as train them in teamwork issues. Buckenmyer (200) strongly urged colleges and universities to mimic organizations such as Motorola that spends over \$30 million a year in training costs, and train faculty and students in proper use of teams. Furthermore, it stands to reason that professors at these schools have a plan in place to deal with team conflict. Allow one example here. To solve the conflict aspect, for example, one can allow teams to fire a team member. The team member can only be fired by a majority vote and in consultation with the professor who assures that social loafing is the root cause and not favoritism or revenge. Another useful tool is to allow students to submit a confidential peer grade for the each team member's performance.

REFERENCES

- Ariely, D. & Wertenbroch, K. (2002). "Procrastination, deadlines, and performance: Self-control by precommitment," *Psychological Science*, 13 (3), 219-224.
- Buckenmyer, J. (2000), "Using teams for class activities: Making course/classroom teams work," *Journal of Education for Business*, 76 (2), 98.
- Eva, K.W. (2002). "Teamwork during education: The whole is not always greater than the sum of the parts," *Medical Education*, 36, 314-316.
- Holloway, J. H. (2004). "Student teamwork," *Educational Leadership*, 91-92.
- Jones, D. (1996). "Empowered teams in the classroom can work," *Journal for Quality & Participation*, 19 (1), 80.
- Joy-Matthews, J. & Gladstone, B. (2000). "Extending the group: A strategy for virtual team formation," *Industrial and Commercial Training*, 32 (1), 24-29.
- Lynch, C. (2001). "Individualism and Christianity," *American Psychologist*, 56(12), 1176.
- Lynch, M., Jr. (2001). "Religion's influence on culture and psychology," *American Psychologist*, 56 (12) 1174-1175.
- McGuire, J.V. (1998). "Building teams in the classroom," *Techniques: Making Education & Career Connections*, 73 (6), 52-53.
- Page, D. & Donelan, J.G. (2003). "Team-building tools for students," *Journal of Education for Business*, 78 (3), 125-128.
- Sampson, E. (2000). "Reinterpreting individualism and collectivism: their religious roots and monologic versus dialogic person-other relationship," *American Psychologist*, 55, 1425-1432.

- Sosik, J.J. & Jung, D.I. (2002). "Work-group characteristics and performance in collectivistic and individualistic cultures," *Journal of Social Psychology*, 142 (1), 5-24.
- Vermette, P. (1994). "Four fatal flaws: avoiding common mistakes of novice users of cooperative learning," *High School Journal*, 77, 255-260.
- Vik, G.N. (2001). "Doing more to teach teamwork than telling students to sink or swim," *Business Communication Quarterly*, 64 (4), 112-119.
- Wagner, J.A., III. (1995). "Studies of individualism-collectivism: Effects on cooperation in groups," *Academy of Management Journal*, 38 (1), 152-172.

THE ROLE OF UNIVERSITIES IN ATTAINING REGIONAL COMPETITIVENESS UNDER ADVERSITY

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ABSTRACT

We examine the role of the university in attaining regional competitiveness in technology in periods of extreme adversity such as has been the case in the post-Hurricane Katrina situation in New Orleans and the Gulf Coast. We note that, in such situations, much can be learned from the experiences of developing nations which have successfully attained technological leadership in specific niches. University leadership will be important in several arenas. Teaching and research will need to be targeted to regionally-important areas. The research findings must be transferred to organizations which can exploit opportunities and develop needed technologies. Universities can serve as both disseminators of information and as collaborators in the process. Universities can both spark new businesses and support existing businesses. To determine what is needed and where the niches are, we highlight the importance of text mining of publication and patent databases. Text mining can identify regional strengths upon which competitive advantages can be built.

THE ROLE OF UNIVERSITIES IN ATTAINING REGIONAL COMPETITIVENESS UNDER ADVERSITY

In our knowledge-based economy, economic growth is related to technological competitiveness. What is required to achieve technological competitiveness? The I-10 Corridor, which extends along the Gulf Coast of Louisiana, Mississippi, and Alabama, has traditionally lagged in technological development and the recent impact of Hurricane Katrina on the region's infrastructure, environment, and economic conditions has led to significant further decay. Is it even reasonable for such an area to expect to attain technological competitiveness? The focus of this article is upon the potential role of the university in promoting technological competitiveness and regional economic development in the I-10 Corridor.

Technological competitiveness appears to be fueled by science and scientific development. Does scientific growth consistently translate into economic growth? From the perspective of public policy, a key set of issues centers on finding avenues for transferring breakthroughs in science to organizations which could potentially put the knowledge to use. The university can play an important role in the dissemination of knowledge and thus act as a driver of innovation.

The I-10 Corridor can be thought of as a region which, post-Katrina, is encountering economic conditions which, in many ways, make it resemble a less-developed country more closely

than a thriving industrialized locale. We can look at insights offered by the body of research which has examined the relations among economic, scientific and technological development in less-developed nations to see what may be applicable. In general, issues in this literature center upon whether developing nations should simply try to "catch up" by imitating the technology and methodologies of developed countries or whether they should engage in technology development in specific niches where they have the capability to lead. Are there lessons that the I-10 Corridor can learn from the successes of developing countries and what are the implications for universities?

Nelson (2004) has noted that, in the past, successful growth in developing economies has been characterized by a considerable "cross-border flow of people," where citizens go elsewhere to learn new technologies and then return to implement them or where experts come into the area to serve as mentors/advisors. Something similar to this phenomenon could occur along the I-10 Corridor if residents displaced by Katrina can be induced to return and if they return with new ideas. Moreover, since we are addressing regional innovation within an already innovative nation, there is the ability for the parties with the potential to lead development to move freely to the region, as can be seen with the recent hiring of Dr. Ed Blakely, who is known for having orchestrated the recovery of the Bay Area after the 1989 earthquake, as New Orleans' recovery czar. Individuals in the I-10 Corridor can also collaborate easily with technology leaders from more innovative regions. The challenge may be to find ways for the I-10 Corridor to both attract and keep talented individuals. The region's universities will play an important role in attracting talent and in collaborating with outside entities. In the case of Ed Blakely, for example, Blakely was also hired as a Visiting Professor at the University of New Orleans.

Lazonick (2004) cited the development of "indigenous innovation," in an analysis of China's success in "leaping" into the information age. Lazonick noted that a key factor permitting China to move rapidly into the information age was that foreign computer companies had not yet mastered the problem of Chinese-language word processing. When Chinese companies were able to achieve mastery in this area, they controlled a dimension of computing which enabled them to become world leaders. The lesson here rests in China's ability to turn uniqueness into grounds for competitive advantage. In the same vein, the I-10 Corridor must identify its own unique areas that can result in a regional advantage. Potential areas may rest in the unique cultural and political dynamics of the area, and/or in a unique understanding of living in vulnerable coastal areas, and/or in unique experiences from Hurricane Katrina. China used its uniqueness to provide an opportunity to engage in more far reaching innovative research. Are there potential niches where research along the I-10 Corridor can result in leadership? Is the area already a research leader in technologies that are not being harnessed for economic advantage?

Universities can play two major roles in the development process. They can produce research which is aligned with the needs of the region and is relevant to the local economy. In locations such as the I-10 Corridor, universities need to focus upon innovative research activities which improve the quality of the regional environment. In the I-10 Corridor, this includes research that impacts the traditional areas such as tourism, or more broadly, the service sector, biomedical research, coastal/environmental issues, and oil and gas. It may also include new areas that have taken on increased relevance post-Katrina - areas such as construction, any type of infrastructure, public service, or economic building/rebuilding, disaster logistics, and business continuity/flexibility.

The university can also utilize its heritage as a collaborator to transfer regional study results and innovative research from the university to the community. The transfer may take one of three forms: teaching students, sparking business ventures, and conducting policy-relevant research. Universities must ensure that their curricula and programs are such that they are training students in innovative techniques relevant to the region. Universities should become active in the development of business ventures, either sparking new ventures or working with existing small businesses to support their innovation needs and to transfer technologies out of the academic realm and into the commercial realm. Universities can work with existing small businesses to implement, develop, or market new technologies. Initiatives such as the University of New Orleans' College of Business Administration's Global Entrepreneurship Initiative, an initiative that links faculty expertise to the needs of returning entrepreneurs, are mechanisms that can be utilized to transfer the faculty knowledge into to the community. Other similar university-industry linkages can have major impacts on the economic development of a region.

Key elements in the university's impact are its success in collaboration and its success in disseminating information on what is being done in the region. Needed regional analyses involve consideration of the innovation infrastructure of the region, essentially, what is being done, who is providing the leadership in research, what the relationships are among the various academic institutions, government agencies, start-ups, business organizations, research and development organizations, and a host of similar actors, as well as analyses of the potential areas of developmental strength which are not receiving adequate research or economic development focus. Assessment of the regional competitiveness of the I-10 Corridor requires analysis of current regional innovativeness and of the post-Katrina condition of the Gulf Coast. Doing this involves looking at regional competitiveness indicators, broad factors such as research intensity, innovative capacity, and the like. This research can begin with the development of a knowledge assets profile of the region, to determine universities, institutions, and researchers which are active in the region and the existing institutional relationships. Needed, as well, is an area position analysis which would examine researcher accomplishments in the context of work which is underway nationally and/or internationally, to determine what work is at the forefront of ongoing research. Once such analyses are in place, the information can be used to highlight the areas of potential strength which are not receiving adequate economic development attention.

In conducting an analysis of the region, technology mining, or text mining of publication and patent databases, offers a new application of an approach that has been primarily used for national policy decisions and corporate decision-making. This important meta-analytical technique provides a needed macro-level perspective. Shapira and Youtie (2006) found that publication and patent counts were useful both for characterizing innovation clusters at the regional level and for providing leading indicators of technology employment. What we suggest for the I-10 Corridor is a text mining analysis of the intellectual assets (i.e. publications and patents) produced in the region. Technology mining provides quantitative indicators of regional strengths. It is the kind of tool that university researchers need to process the huge amounts of information that must be organized to generate a framework for achieving competitiveness in the I-10 Corridor.

Information on regional strengths can be used to influence organizations that are considering business opportunities along the Gulf Coast and to influence economic development investment decision makers. The challenge involves translating the findings into policy recommendations and

"getting out" the findings to governmental and organizational decision makers to have them acted upon. The results of such analyses must be communicated clearly to all of the relevant stakeholders, there must be support from the appropriate governmental agencies to enable appropriate action, and the appropriate organizations must be willing to act upon them.

The I-10 Corridor, the focus of discussion in this article, although not alone in its regional need to "catch up" to reach a position competitiveness in the knowledge-based economy, faces unique challenges after the devastation caused by Hurricane Katrina. However, the devastation also provides a unique opportunity for the region to assess its assets and apply knowledge gained from the efforts of newly-industrialized countries to embrace their lack of infrastructure and technologically "leapfrog" more advanced regions. We have discussed the crucial role of the university in this transformation process. The university can play a key role, not only in producing innovative research that can contribute to the rebuilding of the infrastructure, but also in conducting the type of research that can inform policy decision makers. Universities must focus their research on regionally relevant areas, adjust programs and curricula to support these regional interests, and work with government and business entities to transfer relevant research into the commercial realm. From our perspective, the most daunting task may not be the difficulty of determining the appropriate niches or even getting cutting-edge research done. The key issues may involve disseminating the information to all of the parties at interest - scientists, politicians, organizational leaders and potential entrepreneurs especially - and getting that information acted upon in a coordinated way.

REFERENCES

- Nelson, Richard (2004). The challenge of building an effective innovation system for catch-up. *Oxford Development Studies*, 32(3), 365-374.
- Lazonick, William (2004). Indigenous Innovation and Economic Development: Lessons from China's Leap into the Information Age. *Industry and Innovation*, 11(4), 273-297(25).
- Shapira, Philip and Youtie, (2006). Measures for knowledge-based economic development: Introducing data mining techniques to economic developers in the state of Georgia and the US South. *Technological Forecasting and Social Change*, 73(8), 950-965.

COUNTDOWN TO TEACHING

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ABSTRACT

More than half of all business doctoral students will seek employment in colleges and universities. Some new faculty may naturally excel in the classroom, but for others, the road is more difficult. Many doctoral students who entered academia did not feel that they were adequately equipped to manage the class and provide the appropriate learning environment. Various researchers have expressed concern about the need for doctoral students to receive some preparation for their role as teachers. This paper discusses studies that address doctoral students and describes a current doctoral teaching seminar. The impact of this teaching seminar has resulted in first time teaching doctoral students beginning the teaching component of their career pursuing higher order teaching skills. The course instills confidence in the first time teachers by enabling them to implement active learning techniques to motivate and engage students.

INTRODUCTION

The Bureau of Labor Statistics of the U.S. Department of Labor reported that approximately 1.7 million postsecondary teachers were employed in educational institutions in 2006 (Occupational Outlook Handbook). The Bureau estimates that number will grow by 23 percent between 2006 and 2016 due in part to the expected increases in college enrollment. Most of the current postsecondary teachers are employed in 4-year universities and colleges or in 2-year community colleges, and they are organized into departments or discipline-based areas.

According to the "Survey of Earned Doctorates (SED)," the majority of the graduating doctoral students seek employment in colleges and universities (Hoffer, et al., 2006). The percentage of those students who had definite postgraduate employment commitments in higher education varied across fields of study. Humanities had the highest percentage (85.2 percent) while engineering had the lowest percentage (14.9 percent). For those with postgraduate commitments in any area, 39 percent identified their main work activities as teaching, and 37 percent identified research and development as their main work activities. The work activities followed a similar pattern with respect to variation across fields of study. Engineering had the highest percentage (77.4 percent) expecting to work in research and development, and humanities doctorates had the highest percentage expecting to teach (74.7 percent).

Most future faculty will not find positions at the research institutions since only around 6.4 percent of the U. S. universities and colleges are considered research institutions according to the Carnegie Classification of Institutions of Higher Education (Carnegie Foundation, 2005). Thus, it is obvious that most new faculty members will be involved in teaching to some extent. Since the

early 1990s the interest in preparing doctoral students to teach as well as to conduct research has grown. However, despite evidence that providing training in teaching for postsecondary teachers enhances the teaching experience and boosts self-confidence (Burton, Bamberry and Harris-Boundy, 2005), many university doctoral programs still do not emphasize the importance of preparing doctoral students to teach.

Since it is inevitable that new doctorates will be teaching some classes as they enter academia, it will serve doctoral programs well to help these students prepare for the teaching component of their academic careers. This preparation also can benefit the research component. That is, if the students are better prepared to teach, more time can be devoted to research, and they will be better prepared to communicate the knowledge gained from their research.

This paper discusses some of the statistics regarding doctoral students, challenges facing doctoral programs, Ph.D. training, and business doctoral programs. Also included is an explanation of a new course introduced in the summer of 2006 in the College of Business at the University of Texas at San Antonio along with an overview of the course design and content.

A BRIEF GLIMPSE INTO DOCTORAL PROGRAMS

Certainly there is a keen interest in recruiting and educating individuals for doctoral programs, particularly in the sciences and engineering. This is evidenced by a number of studies and surveys conducted by various agencies and institutions. For example, the Survey of Earned Doctorates (SED) is funded by several U.S. government agencies, and the first survey was conducted for the 1957-58 academic year. The results from the latest survey showed that 45,596 research doctorates were awarded during the 2005-2006 academic year. This represented a 5.1 percent growth over the previous year. The SED focuses on collecting data on the education and characteristics of individuals seeking doctorates as well as their postgraduate plans. Highlights of the survey are provided in the Summary Report including the statement that 54 percent of those doctorate recipients with firm comments for employment planned to work in educational institutions.

An earlier national survey of doctoral students was conducted in 1999. Approximately 4,000 students in 11 arts and sciences disciplines from 27 universities were surveyed regarding their doctoral education and career preparation (Golde and Dore, 2001). The authors stated that their goal was to identify practices that worked or did not work in doctoral programs. One of their findings revealed that the respondents in the study did not believe that their doctoral programs prepared them for the jobs they took. Although the students felt they were reasonably well prepared to conduct research, they did not feel they were as prepared to teach.

Golde (2004) reported that many of the arts and science doctoral students felt that they had been inadequately prepared for their academic careers. Although it is accepted that doctoral programs emphasize research, some conflicts arise among academicians as to the need to train doctoral students about the art of teaching. While Gale and Golde (2004) indicated that universities were beginning to offering pedagogical preparation for future faculty, there still exists a need for graduate programs to offer instruction in the scholarship of teaching and learning.

Departments/disciplines place different emphases upon preparing doctoral students as teachers. Most doctoral students are given intensive work in narrowly defined subject areas and are

conscientiously trained in the technical skills required for conducting research in those subject areas. Although most universities and search committees seeking new faculty focus on the candidate's research capabilities, some express concern about the teaching abilities of the graduates.

Another issue important in selecting new faculty is the ability to communicate. It is obvious that communication skills are important for academic careers. Professors must be able to teach, make presentations to peers, and publish their research. Frequently the communication skills are ignored in doctoral programs. The issues are not just those of accent and grammar, but the need for writing and speaking skills. A number of universities are reexamining their priorities and objectives in their doctoral programs.

The National Association of Graduate-Professional Students (NAGPS) conducted an online survey in 2000. The survey was designed to assess student perception of doctoral programs, and more than 32,000 current and recent doctoral students participated. The study indicated that 81 percent of the students were satisfied with their programs overall, but only 45 percent were satisfied with their preparation for teaching [2000 National Doctoral Program Survey].

Jean Forray (1996) asked the question "How should we select and train doctoral students as teachers?" to a group of six management faculty members with varying degrees of experience. At the end of the interviews she had additional questions, but concluded that the "design of doctoral student training is clearly embedded in a larger discussion of professional values" [p. 69].

Hershey, Gargeya and Eatman (1996) conducted a survey of recent doctoral business graduates (i.e., "no more than four full years of teaching experience at the current institution"). The survey consisted of twenty-four statements regarding teaching competency. The respondents were asked to indicate the importance of each of the areas, and to rate the amount of preparation they had received in their graduate programs. The statement receiving the most important rating was "Developing teaching-presentation skills." Interestingly, the students felt they were least prepared in this area. Two other areas receiving the next most important ratings were: "planning an existing course and appropriate content coverage" and "motivating students."

Members of the Task Force on Teaching and Career Development at Harvard suggested a change of emphasis in higher education institutions by considering teaching and student learning as important as excellence in scholarship. They appealed to the Dean of the Faculty of Arts and Sciences to give equal weight to teaching and research when making rewards. Another one of their recommendations was to provide new funds for innovative classroom approaches and training junior faculty and doctoral students. [Task Force, Harvard, 2007].

While educational institutions expect faculty to be effective teachers, competent researchers, and an active partner in the university and community, a debate continues regarding the perception that doctoral programs focus on research with minor concern about preparing students to enter the classroom. Many academicians believe that specialized study is adequate preparation for postsecondary teaching. While this may be a reasonable expectation for graduate programs, it is likely to prove inadequate for undergraduate programs. Characteristics of undergraduate students (e.g., age, experience, etc.) are different and require different perspectives. Some researchers also believe that doctoral students should be enlightened as to their other university roles such as advisors (Kupfer, 2007).

Magner (2000) also indicates that the debate continues on Ph.D. training. She suggested that the attendees at the conference on "Re-envisioning the Ph.D." felt there were issues not addressed

by doctoral programs. Although many suggestions were brought forward, no clear cut guidelines were fashioned. Meacham (2002) sampled approximately fifty faculty members and administrators and concluded that they did not believe that there was a match between the qualities generated by most doctoral programs and those qualities sought in new faculty.

In most universities a faculty member's primary role is a teacher. Many articles and texts have been written on the subject of teaching, but how many doctoral students are given assignments which require their reading of this subject matter. Many universities may provide some sort of training for prospective postsecondary teachers, but they vary across departments, disciplines, and colleges. A teaching intern program began in the summer of 1990 at Georgia Tech. Norris (1998) conducted a survey of former students, department chairs at universities where former interns were currently teaching, and other faculty participants. She reports that results of the survey indicated that the program had been effective and that a required seminar was being added to the Ph.D. curriculum.

A report entitled "Reshaping the Graduate Education of Scientists and Engineers (1995) by the National Academies of Sciences and Engineering, recommended that doctoral programs should be changed to include preparation in teaching as well as preparation in non-academic settings. Some believe that improvements in the quality of education can be expedited by changing campus and disciplinary cultures (Applegate, 2002).

BUSINESS DOCTORAL STUDENTS

The number of business doctoral students is small relative to the total number of doctorates awarded each year. In many of the national surveys business doctoral students, if included in the survey, are grouped under "other categories" with communications and unclassified fields (e.g., SED). So, how do business schools doctoral programs prepare students for teaching? Are they focusing on the same models as the other disciplines? Alutto (1993) identified three categories of schools (teaching-focused, research-focused, and balanced). The balanced represents the largest number of schools with respect to business. Alutto also suggested two models that could be applied to the three categories, but he emphasized that each doctoral institution should identify the needs of their customers (i.e., which type of colleges or universities will be the recipients of the institution's doctoral students). Understanding the needs of their customers will be important in ensuring that the doctoral students meet the criteria of prospective colleges. The third category (balanced) probably represents the largest number of schools with respect to business.

Since business schools have a variety of disciplines, it is necessary that the doctoral students are accomplished in their specific discipline. However, because of the need to address strategic as well as tactical issues of an organization, there is a need for integration of disciplines. Thus, it is important that business doctoral students be broadly trained in the core disciplines and their application to practical problems in order for them to communicate to their students how the functional areas are incorporated. Frequently, the integration of the disciplines only occurs in a "capstone" course. It is not unusual that some faculty believe that specializing in a narrow area of research prepares doctoral students to teach. Moreover this type of thinking may result in mismatches between the needs of the hiring institutions and the preparation of the doctoral students.

Harvey Brightman (1995) challenged faculty to join him in increasing their efforts to prepare doctoral students to teach. Although numerous members of the faculty believe that research is

assigned a higher value than teaching, Brightman suggested that champions and top management support [i.e., not lip service but real incentives and rewards for excellent teaching] could pave the way for renewed interest in teaching and learning.

In a survey of faculty members, over 50 percent felt that they should focus on research, but only 10 percent believed their main emphasis should be teaching (Porter & McKibbin, 1988). Their report was based upon 300 interviews with administrators and faculty members and over 8,000 surveys from students and alumni. One of the authors' criticisms was that business schools had become complacent and that few examples of major changes were being considered. They also contended that the emphasis on research appeared to be more about increasing the quantity than its actual impact on business issues. Lyman Porter (1997) looked for changes a decade later. He found numerous positive changes such as trying some innovations and a lessening of a herd mentality. He also noted that a stronger practicum and project emphasis was occurring. However, he noted that doctoral education seemed stagnated; that is, the preparation of doctoral students appeared to be about the same as it was in the 1960s, 1970, and 1980s.

In the late 1950s business schools were criticized as having sub-standard faculty qualifications, course work and research (Gordon and Howell, 1959; Pierson, 1959). An AACSB study in 1988 indicated changes had occurred, but that the business schools had moved too far to the pure research side and neglected the applied side. Thus, the traditional debate between teaching and research emphases spread through the business schools. As noted earlier only 6.4 percent of colleges and universities are classified as research institutions, but they produce around 34 percent of the undergraduates in the U.S. Some state legislators began to mandate teaching loads (Weber & Russ, 1997) in part because they felt that some researchers were overpaid and underused in the teaching component of universities (Winkler, 1992).

TEACHING AND LEARNING

Three general perspectives regarding teaching may be considered when developing a teaching philosophy. Teaching may be thought of as an interaction between a teacher and a student conducted in such a way as to

1. Provide the student with the opportunity to learn. This focuses on the role of the teacher being a knowledge generator and source, a role model, and a mentor. Thus, the faculty member would continually gain expertise through research and communicate this to the students.
2. Enable the student to learn. Under this perspective the teacher still must be a source of knowledge while being able to create an environment conducive to learning. The faculty member would develop interactive skills that create interest and motivate students to learn.
3. Cause the student to learn. Under this case the teacher has the primary responsibility for student learning. Faculty members are considered to be more effective the higher the test scores on some prescribed examination.

Unfortunately, this third perspective has become popular with the public and legislators under the umbrella of accountability. While it is all well and good for students to score high on examinations, learning to be a citizen of the world is more than testing. Thus, if we consider that we can help doctoral students prepare to teach, we need to understand they will not all follow a cookie-cutter approach. They are different, and how they teach will vary. However, there is some agreement that some proficiency in teaching can be transferred through workshops, courses, seminars, internships, mentors, etc. This is thought to be true in several broad dimensions of teaching:

1. Content expertise. Knowing the subject matter being taught.
2. Teaching philosophy. Developing a way of thinking about teaching.
3. Instructional delivery skills and characteristics. Presentation of the subject matter in a manner that would encourage students to learn.
4. Instructional design skills. Designing active learning instructional activities in such a manner to ensure student engagement.
5. Course Management Skills. Managing a course, grading, arranging for guest lecturers and facilities, and so on.

Although mastery of the subject matter has been one of the four most frequently mentioned characteristics of an effective college teacher for many years (Crawford and Bradshaw, 1968; French, 1957; Gadzella, 1968), and as noted in several of the surveys, most students believe they are receiving the necessary training and tools in their field of study. With the exception of encouraging doctoral students to let their enthusiasm for their subject be spontaneous, a teaching preparation course should focus on the other dimensions.

A LOOK AT ONE DOCTORAL TEACHING SEMINAR

In 2002 UTSA began offering a Ph.D. in Business Administration with concentrations in accounting, finance, information technology, and organization and management studies. In the summer of 2006, a new course was developed (GBA 7103, Doctoral Teaching Seminar) to help the graduates prepare for academic careers. The course is organized into ten class sessions of four hours each.

Good teaching is derived from activities that enhance student learning, and the methods used in this course are based upon active learning methods. While the class is not a lecture course, a considerable amount of reading is required. Two relevant teaching textbooks (Lowman's *Mastering the Techniques of Teaching* and McKeachie's *Teaching Tips*) are required as are numerous articles that provide a variety of viewpoints relevant to teaching and learning styles.

The students are assigned readings for the first day of class and expected to participate in discussions. Although all of the students may not know or be able to express their feelings about teaching the first day, they are asked to answer several questions (which by the end of the course, they should be able to answer):

1. What is your philosophy of teaching?
2. How do you intend to position your career as a college professor?
3. What constitutes exemplary teaching?
4. What kind of teacher do you want to be?

For the second class, the students are to prepare a reflective paper upon their entire education. There are two parts to the paper:

Part I. Who were your best teachers? Why? What did they do that was most effective? Do they serve as a role model for your teaching style? What characteristics of their teaching style do you want to incorporate into your teaching style? What characteristics do these teachers have in common? Which teacher(s) had the greatest influence on your life? Why?

Part II. Who were your worst teachers? Why? What did they do that was most ineffective? What characteristics of their teaching style do you want to avoid? What characteristics do these teachers have in common? Do you think they felt they were ineffective?

During the second class they also begin to discuss teaching styles and classroom dynamics. For the third class, they are conducting a workshop on student learning styles and discussing the connection between teaching and learning styles. By the fourth class, course design and development of relevant assignments are discussed. These elements will provide the basis for the course design project that they will complete before the end of the semester. For the next class, they are asked to consider their specific disciplines (i.e., accounting, finance, and so on) and prepare a discipline conceptualization paper. The paper includes a taxonomy/overview/framework for a "principles" course in their field that could serve as a teaching platform for the principles course as well as other courses in their discipline. This paper along with the development of the relevant assignments and syllabus will serve as the basis for the teaching video assignment required on the last day of class. Other classes focus on student motivation, learning objectives, assessment, student concerns and time management. Numerous presentations, discussions, and critiques are part of each class. The final paper for the course is a description of their teaching philosophy and what teaching style(s) they plan to use. They are encouraged to interview and observe faculty, and they must include a literature review of the teaching style(s) they will be using.

Another dimension not mentioned in the five broad dimensions is related to the comfort level an individual feels when beginning to teach. Some degree of self-confidence may help allay some of the fears that new faculty face when they are entirely on their own in the classroom for the first time. Their perception that they have something to offer the students can be reassuring to them. Esenc Balam (2006) found a significant relationship between professors' efficacy beliefs and professors' teaching effectiveness. One's perceived self-efficacy is usually defined in terms of how one perceives their capabilities of producing effects (Bandura, 1994). Thus, "teaching efficacy" refers to one's confidence in their ability to affect student performance. Burton, et al (2005) reported that new doctoral students who were involved in teaching preparation (e.g. instructional techniques, seminars, workshops, practice, and interaction with experienced instructors) demonstrated an improvement in their sense of personal teaching efficacy. In addition, they hypothesized that teaching seminars would have different effects based upon an individual's personal characteristics

and found that the teaching seminar was more effective for those individuals with high levels of positive affectivity. Gist and Mitchell (1992) reported that self-efficacy influenced activities such as goal level, effort, and persistence. Believing that one has the necessary skills to perform successfully may help them develop the confidence to actually provide a better learning environment. It is hoped that this course will play an important part in the students developing a sense of self-confidence in their ability to help other students learn. It is also hoped that the course will help them see themselves as college professors who are a part of the entire university community and that while research is important, there are other rewards to be gained from teaching.

Although the course initially was met with some skepticism, the feedback from participants has been positive, and other graduate business students who were not required to take the course requested permission to audit the course this summer. After this class has been completed this summer, it is anticipated that formal feedback will be obtained through a structured survey and scheduled interviews with the students. We also plan to make contact with the colleges where the graduates from the first two summers were hired.

REFERENCES

- Alutto, Joseph A. (1993), Whither doctoral business education? An exploration of program models. *Selections*, 9(3), 37-43.
- Applegate, James L. (2002, January), Engaged graduate education: Seeing with new eyes. Washington Association of American Colleges and Universities, and Washington Council of Graduate Schools, PFF Occasional Paper Series.
- Balam, Esenc Meric (2006), Professors' teaching effectiveness in relation to self-efficacy beliefs and perceptions of student rating myths. Unpublished doctoral dissertation, Auburn University.
- Bandura, A. (1994), Self-efficacy. In V. S. Ramachaudran (ed.), *Encyclopedia of Human Behavior*, 4, 71-81.
- Brightman, Harvey J. (1995, December/January), Training doctoral students in the art of teaching. *Decision Line*, 26(5).
- Burton, James P., Bamberry, Nola-Jean and Harris-Boundy, Jason (2005), Developing personal teaching efficacy in new teachers in university settings. *Academy of Management Learning & Education*, 4(2), 160-173.
- Carnegie Foundation (2005), 2005 Carnegie classifications. National Center for Education Statistics, IPEDS Fall enrollment (2004).
- Crawford, P. L. and Bradshaw, H. L. (1968), Perceptions of characteristics of effective university teachers: a scaling analysis. *Educational and Psychological Measurement*, 28, 1079-1085.
- Furray, Jean Mannheimer (1996), Doctoral education and the teaching mission: a dialogue with Jean Bartunek, Lee Burke, Craig Lundberg, Jane Giacobbe Miller, Pushkala Prasad, and Chris Roberts. *Journal of Management Education*, 20(1), 60-69.
- French, G. M. (1957), College students' concept of effective teaching determined by an analysis of teacher ratings. *Dissertation Abstracts*, 17, 1380-1381.
- Gadzella, B. M. (1968), College student views and ratings of an ideal professor. *College and University*, 44, 89-96.

- Gale, Richard and Golde, Chris M. (2004, Spring), Doctoral education and the scholarship of teaching and learning. *Peer Review*, American Association of Colleges & Universities, 8-12.
- Gist, Marilyn E. and Mitchell, Terence R. (1992), Self-efficacy: a theoretical analysis of its determinants and malleability. *Management Academy Review*, 17 (2), 183-211.
- Gordon, R. A. and Howell, J. E. (1959), *Higher Education for Business*, Columbia University Press, New York.
- Golde, Chris M. (2004, Spring), Responsibility of doctoral programs for the career preparation of future faculty. *Peer Review*, American Association of Colleges & Universities, 26-29.
- Golde, Chris M. and Dore, Timothy M. (2001), At cross purposes: what the experiences of doctoral students reveal about doctoral education," A report prepared for The Pew Charitable Trusts, Philadelphia, PA.
- Hershey, Gerald L., Gargeya, Vidyaranya B., and Eatman, John, (1996, Autumn), Are business doctoral graduates prepared to teach? *Selections*, 12(1), 17-26.
- Hoffer, Thomas B., Hess, Mary, Welch, Jr., Vincent, and Williams, Kimberly, (2006), Doctorate Recipients from United States Universities Summary Report 2006, Chicago, IL: NORC at the University of Chicago.
- Kupfer, Melissa M. (2008, January), Preparing doctoral students for their future roles as academic advisers: how doctoral programs can assist students' preparation. *The Mentor: An Academic Advising Journal*, The Pennsylvania State University, Retrieved August 3, 2008, from www.psu.edu/dus/mentor
- Lowman, Joseph (1999). *Mastering the Techniques of Teaching (Second Edition)*, Jossey-Bass.
- Magner, Denise K. (2000, April 28), Critics urge overhaul of Ph.D. training, but disagree on how to do so," *The Chronicle of Higher Education*, A19-20.
- McKeachie, Wilbert and Svinicki, Marilla (2006), *McKeachie's Teaching Tips*, Houghton-Mifflin.
- Meacham, Jack (2002), Our doctoral programs are failing our undergraduate students," *Liberal Education*, 88.
- National Academy of Sciences (1995), National Academy of Engineering, Institute of Medicine, Reshaping the Graduate Education of Scientists and Engineers, National Academies Press, Retrieved August 5, 2008, from <http://www.nap.edu/catalog/4935.html>
- National Association of Graduate-Professional Students (2000), 2000 National Doctoral Program Survey, Retrieved August 1, 2008, from <http://survey.nagps.org/>
- Norris, Pamela M. (1998, July), Effectiveness of the Woodruff School Doctoral Teaching Intern Program. *Journal of Engineering Education*.
- Pierson, F. C. (1959), *The Education of American Businessmen*, McGraw-Hill, New York.
- Porter, Lyman W. (1997, Winter), A decade of change in the business school: from complacency to tomorrow. *Selections*, 23 (2), 1-8.
- Porter, Lyman W. and McKibbin, L.E. (1988). *Management Education and Development: Drift or Thrust into the 21st Century?* McGraw-Hill, New York, 1988.

Task Force on Teaching and Career Development (2007, January), A compact to enhance teaching and learning at Harvard. Harvard University, Retrieved August 1, 2008, from www.fas.harvard.edu/home/news_and_events/releases/taskforce_01242007.pdf

U.S. Department of Labor, Bureau of Labor statistics (2006), Teachers—postsecondary. *Occupational Outlook Handbook*, Retrieved August 1, 2008, from www.bls.gov/oco/ocos066.htm.

Weber, M. J. and Russ, R. R. (1997), Scholarship assessment: perceptions of human sciences administrators and faculty in higher education. *Journal of Family and Consumer Sciences*, 89(4), 2-7.

Winkler, A. M. (1992, July/August), The faculty workload question. *Change*, 36-41.

DOES A MARKET ORIENTATION STRATEGY EXIST TOWARD BUSINESS SCHOOL STUDENTS? A VIEW FROM THREE LEVELS OF ACADEMIC ADMINISTRATORS

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ABSTRACT

A market orientation strategy is a strategy based upon the acceptance and adoption of the marketing concept. The market-oriented organization recognizes the importance of coordinating the activities of all departments, functions, and individuals in the organization to satisfy customers by delivering superior value. The market-oriented organization continually monitors customer information, competitor information, and marketplace information to design and provide superior value to its customers. Theory and empirical research suggest that higher levels of market orientation result in a greater ability of the organization to reach its objectives, in other words, higher levels of organizational performance. The critical question for such a strategy in higher education is whether or not students are perceived as customers. This paper extends the current research on the use of the market orientation strategy in higher education by reporting and analyzing market orientation levels (scores) from three separate administrative levels with responsibilities associated with the business school. Comparisons of the various scores are made against a benchmark established in the literature and then compared by administrative group against one another. University Academic Vice-Presidents, Business School Deans, and Marketing Department Chairs were surveyed by way of a national mail survey. All administrators were from colleges or universities holding membership in AACSB-International. 102 Vice-Presidents, 141 Business School Deans, and 94 Marketing Department Chairs responded. The paper presents details of the research process, findings, statistical inferences, and discusses the implications of the research for schools of business and academic marketing departments.