Volume 10, Number 2 *2005*

Allied Academies
International Conference

Las Vegas, Nevada
October 12-15, 2005

Academy of Educational Leadership

PROCEEDINGS

Volume 10, Number 2 *2005*

Table of Contents

TRADITIONAL CLASSROOM TESTING FOR ONLINE COURSES

Randy J. Anderson, California State University, Fresno
randya@csufresno.edu

PROLOGUE

With the increased usage of microcomputers, Internet access, and Distance Learning, college teaching is undergoing a metamorphosis. College instructors are no longer constrained to the technology of overhead projectors and chalk dust to expand the horizons of today's students. But the transformation that is made depends up the vision that any instructor possesses.

Take for instance, Dr. Bob Johnson, a fictitious college professor, whose only notable achievement in life was to teach a required statistics class to a roomful of mostly hostile business students. An introvert by birth led to an ordinary career at a commonplace state university. There are no distinguishing marks on Bob's resume. He has been a "good soldier" to his school, publishing a couple of ordinary papers (when time to write presented itself), serving on department and university committees (when assigned), and even chairing a few master theses defenses (when asked).

Now entering the twilight of college teaching career, Bob thought it was his time to prepare for retirement, and, perhaps, become a mentor to the young and industrious junior faculty. In a few years, he could look forward to watching his grandkids grow up, play golf twice a week with his friends, and take that extended vacation that he had been promising his wife for so many years. Yes, indeed, Bob was set, because he had fulfilled the niche that he had created for himself.

But Bob was just about to enter into the "Technology Zone," a place that likens itself to the "Twilight Zone," only run by young people. It was here where actual reality stopped and virtual reality began. The classroom was beginning to be stretched beyond its ordinary walls, and students started to participate from a far. If this were a dream, it actually would have been without question, a bad one for Bob! How in the world will Bob cope with this technological change? Would he be forced into early retirement, or could he force himself to go with the flow, and learn how to apply the new technology to his current classroom delivery?

INTRODUCTION

How can college instructors test students in the virtual classroom when they are not physically present? In order to achieve fairness, ethical considerations must be considered. Otherwise, the value of the testing instrument could become compromised, and the results could be biased and contaminated. The former testing procedure at the United States military academies was the best example of honorable and ethical testing procedures. The exams were placed at the front of the classroom at the beginning of the day. The students entered the classroom on time, took their exams to their seats, and began the test. At the end of the prescribed time, these students then placed their exams on the front desk, and left the classroom. There was no talking, no dawdling, and no cheating. This procedure was fair and honest. The students were held to a certain code of conduct (this was to be followed to the letter), so-called "put on their honor." They would not cheat nor would they tolerate anyone who did. In a perfect world, this procedure would still be a viable testing technique. But even at the military academies, the temptations were too great, and corruption followed. The cheating scandals are a matter of public record. Moreover, the widespread use of text messaging and camera cell phones presents even great temptations to cheat for today's college students.

But in this imperfect world, how can educational professionals, especially at state universities, react to the pressure and technological conditions, which exist today? What if a procedure could be developed such that the student's best work is showcased, and at the same time, the testing procedure is not compromised? What if a student could update his/her knowledge during an examination, without this update conflicting with ethics and honor, which would result in improved exam scores? What if you could change the probability of an event occurring, while the event was still happening? In statistics, this is called a "Bayesian" approach to probability. Bayesian statisticians believe that you can update your probabilities based upon knowledge gathered during an event for future applications. This is much like riding a "hot streak" while playing blackjack or playing craps. Even though the House will win in the end, an individual player can win during the short term.

How can this philosophy be used to challenge students, to alter their outcomes on exams, to increase their knowledge base? Success in the workplace is not usually based upon a solitary exam, but is based upon a compilation of many "exams." Consequently, how can educational professional use this same compilation technique to adequately assess a student's potential? Consider the outcome of what might be considered a "Bayesian" approach to testing.

RESEARCH

Table 1. Historical Testing Outcomes in DS 123

Time Frame	Semester Exam Format	Average Semester Exam Score	Final Exam Format	Average Number Students per Class	Average Final Exam Score
HISTORICAL DATA: 36 semesters: Fall 1982- Fall 1997	100% subjectively graded and no multiple choice format	84.3%	Strictly Multiple choice, 2 hours total, one sitting	34.2	52.3/80 = 65.38%
3 semesters: Spring, 1998-Spring, 1999	Combination: 75% subjectively graded and 25% multiple choice format	81.7%	Strictly Multiple choice, 2 hours total, one sitting	43.1	54.8/80 = 68.50%
3 semesters: Fall 1999- Fall 2000	100% subjectively graded and no multiple choice format	83.0%	Strictly Multiple choice, 1 hour preview and one 2 hour sitting for final:3 hours total	43.3	64.6/80 = 80.75%
1 semester: Spring 2000	Combination: 10% subjectively graded,90% multiple choice format	79.9%	Strictly Multiple choice, one 2 hour sitting for final	34.5	59.1/80 = 73.86%
2 semesters: Fall 2001-Spring 2001	Combination: 10% subjectively graded and 90% multiple choice format	79.0%	Strictly Multiple choice, One two hour sitting for final	35.2	60.95/80 = 76.19%
2 semesters: Summer 2003- Summer 2004 Six week classes	Combination: 10% subjectively graded and 90% multiple choice format	79.851%	Strictly Multiple choice, One two hour sitting for final	28.25	59.66/80 = 74.573%
1 semester: Fall 2004-large	Combination: 10% subjectively	76.241%	Strictly Multiple choice, One two	40.5	54.80/80 =

Table 1. Historical Testing Outcomes in DS 123

Time Frame	Semester Exam Format	Average Semester Exam Score	Final Exam Format	Average Number Students per Class	Average Final Exam Score
classroom instruction format	graded and 90% multiple choice format		hour sitting for final		68.504%

A comprehensive Final Exam could and should be considered the culminating experience in any college course. Such is the case in DS 123, the second semester, senior level statistics class, in the Sid Craig School of Business at California State University, Fresno. This course covers inferential statistics, the application part of statistics. While generally considered to be more logical and somewhat easier than descriptive statistics, this topic still can be formidable. When broken into four introductory components or units (for purposed by the professor), and tested on these four units separately, DS 123 students have performed quite well. But when asked to answer 100 multiple choice questions on a comprehensive final exam within the allotted timeframe, the outcome has been quite different. In quantitative subjects, this comprehensive exam asks the student to piece together the entire puzzle for the whole semester. What this type of exam is really testing is the ability of the student to synthesize the complete material and its complexities in one sitting, rather than being tested piecemeal.

Because the content and questions have changed very little over the past twenty years for this particular instructor (the fictitious Dr. Bob Johnson), the expected value of the outcome (the historical average) on this final exam is easy to track and validate (65.38%), a mid "D." Moreover, the standard deviation of this average has been reasonably small, which means that students have historically averaged about the same scores over time. In other words, there have not been bimodal outcomes where students who have done very well on the final exam are countered by a similarly large number who have performed just as poorly.

As can be seen in the above table, students have not fared too well on this final exam. Many different reasons could be hypothesized as to why, such as that the subject matter is difficult in general, and even more difficult when tested in a comprehensive fashion. Or, perhaps, by the end of the semester, most students have lost interest in a class that is perceived by some as just an impediment in their quest for a four-year college degree. However, this is not the main thesis of this paper. What is germane to this paper is "how" to improve the student's outcome without compromising the exam itself.

As the university classroom is increasingly moving towards the faceless virtual classroom, "online" delivery and performance evaluation (testing) are becoming a reality. Once the best face-to-face classroom evaluation method is determined, then its online counterpart can be developed into a reasonable evaluation tool of the student's progress in the particular college course.

One concern is the fact that for the most part in most college classes, students have been evaluated subjectively during the regular unit exams (where partial credit can be given), and then they are asked to perform at the same level of competence on a final exam which is completely objectively graded (strictly multiple choice). It could be argued that, since the format of an exam can have a direct bearing on the outcome, a change in the unit exam format could enhance the outcome of the final exam without affecting its value.

Consequently, nine semesters ago (Spring 1998), the format of the regular unit exams was change to incorporate a multiple-choice component. While the first two unit exams of the semester were subjectively graded, the last two exams were converted into a multiple-choice approach. Asking equivalent objective questions to their subjective counterparts for inferential statistics was a challenge. To elicit similar knowledge, questions needed to be phrased in such a fashion that students still needed to work the problems. But an error at any critical portion of the solution would

compound itself by causing further incorrect answers (despite the fact that the hypothesis testing procedure was being followed correctly!). During the Spring 1999 semester, almost all portions of the unit exams had been converted to a multiple-choice format, leaving one to two problems per first two exams to be subjectively graded. Since this time, the testing during the regular semester has been a mixture of subjectively graded and objectively graded (as indicated in Table 1).

Again, as shown, the outcome on the final exam improved. It is possible to conclude that prior knowledge of the final exam format has increased scores. The final exam average score jumped from 65.38% to 68.5%. Whether or not this change is significant in a statistical sense is not really all that important. What is important is that the average student was still earning a less than stellar mid-to-high "D" on a comprehensive final.

In the Fall of 1999, a newly devised approach for the final exam was tested with heralded success. Prior to this semester, the final exam was given in its entirety during a one sitting, two-hour exam. Because the average student's performance on the final exam was still a great concern to the professor, a novel approach to administering the same final exam was brought to the attention of the department chair and school dean. One thought that guided this change was that, since most employees in the workforce very rarely complete a task in one sitting, the students might benefit from the same approach to problem solving at the collegiate level.

Students were given the opportunity to take the same final exam in three one-hour sittings (Monday-Wednesday-Friday) with a day off in between sittings. This "Bayesian" approach to problem solving would allow students to view the exam in its entirety the first day, to contemplate its level of complexity and completeness. Students then could spend time between testing sessions focusing on the topical areas that were weak or unfamiliar, and studying where needed. When the test reconvened, students then could apply their rededicated knowledge into improving their outcome.

With all other things being equal (like the student population being normally distributed and all biorhythms peaking at the same time), this approach garnered positive results. The average score on this exam jumped to 80.75%! In a statistical sense, this increase in average score over the past final exam experiences was significant. Furthermore, it is felt that the final exam itself was not compromised, but the ability for the average student to demonstrate his/her knowledge was showcased to a greater extent.

This new final exam testing procedure showed great promise as students were scoring higher, which in turn was reflected in their final grades for DS 123. Unfortunately, it took only one student in one class during the Spring 2000 semester to change the professor's approach (and respect) for the Bayesian testing procedure. Rather than spend the first hour perusing the final exam, and contemplating the areas to study, he spent the entire hour inputting the final exam into his programmable calculator so he could work on the problems outside of class. Moreover, not being satisfied with this unjust knowledge alone, he then emailed other students in his class with the data, asking them to involve themselves in this cheating scandal. This one student not only compromised this exam, he invalidated this Bayesian testing procedure. Consequently and with some bitterness (and after completely writing the final exam), the professor reverted back to the normal final exam sitting of one sitting of two hours.

Since the return to the two hour, one sitting final exam evaluation, more variables have been introduced for analysis. At CSU, Fresno, one of the attractions for potential students is the small classroom atmosphere. However, due to 2004 state budget constraints, the classroom size has been stretched to full capacity. Consequently, students now fill a 50 seat classroom as compared to 35 seats in the past. Moreover, this professor has been given the opportunity to teach a six week summer school session in both the 2003 and 2004 summers. The results of the compressed teaching scheduled with an average of about 25 students per class along with the outcomes of the most recent large classroom experience have been added to Table 1.

CONCLUSION

Final exam scores still seem to have improved over the historical average, in spite of the changes. However, the Fall 2004 semester's outcome on the final exam (with its larger classroom sizes) seems to suggest that students have reverted to the historical average. If it is feasible, the professor would like to again try the unique approach that initiated this study by allowing students in the large classroom situation to again view the final exam for an hour's time before the students sit for a grade. It might be easy to suggest that both the format of the semester unit exams and the innovative final exam testing approach had a positive effect on the outcome. Although this was a pilot study, featuring an alternative approach to testing students' comprehensive knowledge of a difficult subject, the outcome is very promising.

he thesis of this paper (in deference to the hypothetical college professor, Dr. Bob Johnson) is to challenge the educational establishment to think creatively when it comes to testing students (so called "out of the box"). The very nature of the environment of today's educational system is that we are trending toward classrooms without walls. Not too far in to the distance future will students no longer congregate into classrooms to be lectured and tested. "Distance Education" and satellite campuses will require professors to react globally to educational circumstances. Certainly, ethics and honor must be considered on behalf of both the student and professor when testing in a non-traditional sitting (much like the former testing procedure used at the nation's military academies). It should be experiential, it can be experimental, it should always be a valid evaluation of a student's knowledge and ability. The "Why" of testing students has been debated, deliberated, and dissected for as long as the process has existed. The "How" of testing students is only limited to the imagination of those who design the testing procedures themselves. How will you change your ways?

IMPROVING ADULT CREATIVITY USING THERAPEUTIC METHODS

Joe Aniello, Francis Marion University
janiello@fmarion
Wil Clouse, Vanderbilt University
wil.clouse@vanderbilt.edu

ABSTRACT

This study examined changes in creativity among undergraduate students at a major southeastern United States university. The focus was on the interactions between 36 students and their professor within the context of the requirements for their coursework on organizational behavior. The student-teacher relationship was designed within the framework of a college classroom environment, specifically: (a) the level of Professorial Concern (PC) and (b) the climate of Affiliation (AF) as measured by student responses.

Each student was asked to produce a creative nametag at the beginning of the semester and then again, at the end of the semester. Analysis of variance showed a significant change (i.e., increase) in student creativity from pretest to posttest measures. This change was considered reliable when using Pearson r to measure the ratings of the 21 creativity judges (5 expert/16 peer). The two quantitative scales measuring the classroom environment, Professorial Concern (PC) and Affiliation (AF), produced a statistically significant increase in creativity from pretest to posttest. There was also a significant increase demonstrated in creativity change based on the beginning (pretest) level of creativity; the lower the starting level, the more increase that was experienced.

THE IMPACT OF CHANGING CULTURE IN HIGHER EDUCATION ON THE PERSON-ORGANIZATION FIT, JOB SATISFACTION, AND ORGANIZATIONAL COMMITMENT OF COLLEGE FACULTY

Beth Castiglia, Felician College
castigliab@felician.edu

ABSTRACT

The purpose of this research was to analyze the impact of cultural change on the person-organization fit, job satisfaction, and organizational commitment of faculty at a small private college. The conclusion of this mixed-model study suggests that the movement of this subject college administration to a competitive, business-like model may have negatively affected the commitment of the faculty to the institution, but has not reduced the satisfaction they find inherent in their roles of teachers and researchers.

DIVERSITY ENHANCEMENT THROUGH BUSINESS AND ENTREPRENEURSHIP TRAINING

Larry R. Dale, Arkansas State University
dalex@astate.edu
Patricia Toney-McLin, Arkansas State University
mclin@astate.edu

ABSTRACT

The ASU SIFE team created a Minority Diversity Camp designed to reach at-risk school children of the region through direct intervention. Toward this end Dr. Dale, as Director of the CEEE, during the 2002-2004 conducted or managed the program to see if it was able to change both attitudes toward the world of work and the importance of higher education to personal success in the market place and if that program has resulted in increased economic literacy. This project began in the spring of 2000. Those students have been tracked for the past five years to determine the lasting effects of that effort. The stated purpose of the program was to provide an opportunity to explore the role of technology and entrepreneurship available through the ASU College of Business and to encourage students to attend Arkansas State University after graduation in the spring. These 28 minority students were selected by their district administration because they were considering attending ASU. Our students showed a marked improvement in their interest in higher education with 82% strongly considering college and 12% considering college or some education beyond high school. The overwhelming school of choice was ASU. We did test students on their knowledge to determine how the experience had affected their understanding of the market economy. The exit survey showed that students enjoyed and would recommend this experiment to others by over 90%. These students learned about the economy and technology and increased their enthusiasm for these important subjects. We believe that our project succeeded in creating an awareness of the possibilities for a bright future with an investment in their own education- human capital. We discovered that 62% of these students attended ASU in the fall of 2001. Eventually 72% of these students enrolled in a college or university. We have been tracking all of them that came to ASU. Of the 17 graduates of the program who attended ASU, 12 have graduated with a degree. One has dropped out of school, with the possibility of returning some time in the near future, and the other four are still enrolled. All four of those plan to graduate within the next 3 years. We did not follow up on the other 10 students who enrolled in another college or University. This was considerable better than the 29 students in our control group who did not experience the workshop. Of the independent variables examined we discovered that the all of the following were significant predictors of success in completing a college education at the .01 level of significance; age, mother's education level, attendance in the program, eventual college enrollment, high school GPA, post test mean score and college graduation were also expected assuming that those students with higher scores would be most likely to enter and complete college. Some of these elements were expected. Those factors that did not prove significant included gender, race, father's education level, high school attended.

THE EFFECTS OF PART-TIME VS. FULL-TIME TEACHING ON FINAL GRADES IN THE INTRODUCTION TO MICROCOMPUTERS AND BUSINESS COURSE

D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
Rob H. Kamery, Nova Southeastern University
robhkamery@yhahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Introduction to Microcomputers and Business course at a comprehensive IIA university. We find that part-time faculty members assign grades 0.35 points higher than those assigned by full-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty member status--i.e., full-time or part-time--is statistically significant at less than a 0.01 level of confidence (p-value = 2.61E-09). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value of 1.89E-75. The model yielded an adjusted R2 value of 0.243, indicating that 24.3 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

The assignment of grades has long been a source of contentious nightmares for many students, but it has also been a joy for others. Grades may open the necessary doors for educational and career growth and progression, or they may altogether eliminate such opportunities. In other instances, grades themselves may not be indicative of one's true abilities and knowledge, nor will they dictate terms of career opportunities or performance. Regardless, grades are a common attribute within academia, labeling students as they progress through the various stages of educational endeavors.

Grove and Wasserman (2004) describe grade inflation as "an upward shift in the grade point average of students over an extended period of time without a corresponding increase in student academic ability." Zirkel (1999) confirms this perception through defining grade inflation as "a rise in academic grades not accompanied by a commensurate increase in academic achievement." Therefore, when contemplated from these contexts, both GPA and rankings may increase significantly without truthfully representing the level of knowledge and performance requirements that normally would be associated with the numeric data values.

LITERATURE REVIEW

Adjunct faculty members were once considered to be specialists with expertise not commonly found among the ranks of permanent faculty, and they were rewarded commensurately according to their rank (McGee, 2002). Such faculty members often brought insight and prestige that was not commonly found among the existing institutional faculty members. However, recent

definitions of these adjunct faculty members indicate that they are the temporary faculty who teach less than full-time loads or who have fewer faculty duties than are normally required of their full-time faculty member counterparts (Louziotis, 2000).

Most students perceive a grade as being a payoff for courses completed (Beaver, 1997). Similarly, Halfond (2004) discusses the notion that students feel entitled to high grades within higher education. Hassel and Lourey (2005) confirm these sentiments with the observation that "students expect to be catered to, to receive [a grade of] B or better for merely paying for the class, and making a good faith effort." Long (2003) states that the grading potential among various factions of faculty may also be influenced according to part-time or full-time status whether a faculty member is part-time or full-time, tenure or is non-tenured.

Sonner (2000) finds that part-time faculty members are comparable to their full-time peers with respect to teaching ability. However, differences between the grading outcomes of part-time versus full-time faculty are manifested. Similar differences between the grading practices of part-time versus full-time faculty are also observed by Van Ness, Van Ness and Kamery (1999). In both instances, the grading outcomes generated by part-time faculty members were higher than the grading outcomes observed by full-time faculty members.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Introduction to Microcomputers and Business course taught at a private comprehensive IIA university. Five part-time and three full-time faculty members taught the course. Part-time faculty members were classified as adjunct faculty. For the sample of 1,765 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, grade in the course (A, B, C, D, F)
2. The independent variable, status of the faculty member (part-time or full-time)
3. The independent variable, status of the student (day or evening student)
4. The independent variable, student major
5. The independent variable, student gender
6. The independent variable, student age
7. The independent variable, student class standing (freshman, sophomore, junior, senior)
8. The independent variable, student GPA

The dependent variable, grade, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, grade, is ordinal data, since the interval between the grades can be estimated as being ten point intervals (except for the F category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of A, B, C, D, and F is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 36.967 is greater than the F-critical value of 1.10754, it cannot be assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming unequal population variances (see Table 2).

Table 1: F-Test: Two-Sample for Variances		
	Full-time	Part-time
Mean	3.01	3.36
Variance	1.6078	1.0404
Observations	542	1224
df	541	1223
F 36.967		
P(F <= f) one-tail 1.469E-09		
F-Critical one-tail1.10754		

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Introduction to Microcomputers and Business course. The hypothesis tested was one of no difference in the average grades awarded by part-time versus full-time faculty members (in the population). The two-tail p-value of 1.587E-08 represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2: T-Test: Two-Sample Assuming Unequal Variances		
	Full-time	Part-time
Mean	3.01	3.36
Variance	1.6078	1.0404
Observations	542	1224
Hypothesized Mean Difference	-0.35	
df	863.726	
t-Stat	-5.706	
t-Critical one-tail	1.65	
P(T <= t) two-tail	1.587E-08	
t-Critical two-tail	1.96	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a part-time or full-time basis, and academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether the course was taught by a part-time or full-time faculty member, and measure their relationships with a multiple linear regression model. In this way, we can analyze the relationship between student grades and the status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

The multiple regression approach will be utilized here. Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3: Regression Results

Multiple R			0.495				
R^2			0.245				
Adjusted R2			0.243				
Standard Error			0.974				
Observations			1766				
ANOVA							
	SS	df	MS	F		Sig.	
Regression	494.331	5	98.866	104.268		1.877E-95	
Residual	1523.740	1607	0.948				
Total	2018.071	1612					
Correlations	Zero-Coefficients	Std. Error	t-Stat	Sig.	order	Partial	Part
(Constant)	1.129	0.162	6.946	5.442E-12			
Day or Evening	0.105	0.054	1.924	0.054	0.007	0.048	0.042
Gender	-0.058	0.050	-1.166	0.244	-0.099	-0.029	-0.025
Class	0.068	0.025	2.779	5.51E-03	0.177	0.069	0.060
Cumulative GPA	0.514	0.026	19.393	1.89E-75	0.473	0.435	0.420
Faculty status	0.319	0.053	5.988	2.61E-09	0.152	0.148	0.130

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The adjusted coefficient of multiple determination shown in Table 3 is equal to 0.243, indicating that 24.3 percent of the change in the dependent variable, grade, is explained by the set of independent variables (which are student characteristics, except for the faculty member status variable). The F-statistic's high value of 104.268 corroborates the existence of a significant relationship between student grades and the set of independent variables.

Independent variables that would be significant at a 0.01 level of confidence include the following:

1. Faculty member status (part-time or full-time) t-Stat value = 5.988
2. Grade point average (GPA) t-Stat value = 19.393

None of the other independent variables showed a significant relationship to the course grade. During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students in upper division courses that have a computing componentdifferent for those students taught by part-time versus full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the Introduction to Microcomputers and Business course and the status of the faculty member, i.e., whether part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Introduction to Microcomputers and Business course. Next in importance was the status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members may teach predominantly at times and places where non-traditional students are enrolled. Our data was collected at a single university; thus, our results may lack universal application.

REFERENCES

Beaver, W. (1997). Declining college standards: It's not in the courses, it's the grades. *The College Board Review*, 181, 2-7, 29.

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58 65.

Grove, W. & T. Wasserman (2004). The life-cycle pattern of collegiate gpa: Longitudinal cohort analysis and grade inflation. *Journal of Economic Education* (Spring), 162-174.

Halfond, J. (2004). Grade inflation is not a victimless crime. EBSCO Host Research Databases, *Academic Search Premier*. 08827729.

Hassel, H. & J. Lourey (2005). The dea(r)th of student responsibility. *College Teaching*, 3(1), 2-14.

Long, R. (2003). Only an A-? Combating grade inflation. *Tactics*, (8), 18.

Louziotis, D. (2000). The role of adjuncts: Bridging the dark side and the ivory tower. *Review of Business* (Winter), 47-52.

McGee, M. (2002). Hooked on higher education and other tales from adjunct faculty organizing. *Social Text*, 20(1), 61-80.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. Financial Practice and Education (Fall/Winter), 66 73.

Sonner, B. (2000). A is for 'adjunct': Examining grade inflation in higher education. Journal of Education for Business, 76(1), 4-5.

Van Ness, B.F., R.A. Van Ness & R.H. Kamery (1999). The effect of part-time instruction on grades in principles of finance. Financial Practice and Education, 9(2), 105-110.

Zirkel, P. (1999). Grade inflation: A leadership opportunity for schools of Education? Teachers College Record, 101(2), 247-260.

THE EFFECT OF PART-TIME INSTRUCTION ON FINAL GRADES IN THE FUNDAMENTALS OF ALGEBRA COURSE

D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
Rob H. Kamery, Nova Southeastern University
robkamery@yahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Fundamentals of Algebra course at a comprehensive IIA university. We find that full-time faculty members assign grades that are 0.46 points lower than those assigned by part-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty member status--i.e., full-time or part-time--is statistically significant at less than a 0.58 level of confidence (p-value = 0.58). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value of 9.37E-29. The model yielded an adjusted R^2 value of 0.357, indicating that 35.7 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

Numbers are the symbols that humans use as tools to perform the acts of quantification, categorization, judgment, and classification may occur. Numbers, when considered without regard to any perspective, are essentially meaningless. However, given their context, numbers provide the basis of meaningful data and information used to support human decisions. Numbers influence decisions for positive, negative, and neutral outcomes. Numbers, which are nothing more than symbols, form the basis of the notation used to express various mathematical ideas and concepts. Such concepts are the foundation of mathematics courses offered among the institutions of higher education within the United States.

Most colleges and universities award grades using a system that includes letters assigned to indicate the various levels of numerical performance. Traditionally, grades of *A*, *B*, *C*, *D*, *F*, *W*, and *I* are assigned in association with course outcomes. Normally, this scale considers the grade of *A* to be representative of an outstanding or superior performance, whereas failure is represented via the awarding of an *F* grade. The grade of *C* represents the average performance between the highest and lowest grades within the grading scale.

LITERATURE REVIEW

This research was conducted by studying student outcomes in a remedial mathematics course at a comprehensive IIA university. This course was delivered using both an accelerated, non-traditional program and a traditional semester-long program. The delivery of this course occurred in a traditional classroom setting using lectures, discussions, and exercises as its primary method of instruction. The instructors for this course represented both full-time and part-time faculty members.

This course was a remedial class, and it included the fundamental quantitative and algebraic skills needed in other mathematics and science courses. The only pre-requisite for this course was the successful completion of one year of high school algebra. The topics discussed within this course included equations and inequalities, linear systems, exponents, factoring, rational expressions, rational exponents, quadratic equations, and functions. The course does not supply any portion of the mathematics credits required in any institutional degree program.

Remedial mathematics courses may be experienced by those with disabilities, those who are returning from an absence in academia, or those who simply need a stronger set of mathematics skills before progressing to courses of greater difficulty. A portion of the mathematics performance of students with disabilities may be attributed to the method by which learning theory "guides and explains research questions and findings" (Bottge, 2001). Bottge (1999) also indicates that math skills are important for students with learning disabilities because they may encounter life situations that require a working knowledge of mathematics. Bottge, Heinrichs, Mehta and Hung (2002) advocate an active, problem-solving approach with respect to teaching concepts.

The remedial mathematics setting presents some unique attributes among the learning environment, instructor, and student body. Although the United States lags behind other industrialized nations with respect to the mathematics skills of its students, remedial mathematics concerns are manifested globally. Galagedera (1998) discusses the nature of remedial mathematics preparation with respect to statistics course performance among African students. Kaufman and Kaufman (1979) review student performance from the Canadian perspective.

The purpose of the current study is to analyze the effect of faculty member employment status-- part-time or full-time--on student grades in the Fundamentals of Algebra course. Can a student taking a Fundamentals of Algebra course improve his or her grade by enrolling in a course taught by a part-time faculty member? In addition, we examine several student characteristics in order to determine whether those variables interact with faculty member status.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Fundamentals of Algebra course taught at a private comprehensive IIA university. Two part-time and two full-time faculty members were employed to teach the course. Part-time faculty members were classified as adjunct faculty. For the sample of 310 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, *grade* in the course (*A*, *B*, *C*, *D*, *F*)
2. The independent variable, *status of the faculty member* (part-time or full-time)
3. The independent variable, *status of the student* (day or evening student)
4. The independent variable, *student class standing* (freshman, sophomore, junior, senior)
5. The independent variable, *student age*
6. The independent variable, *student GPA*

The dependent variable, *grade*, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, *grade*, is ordinal data, since the interval between the grades can be estimated as being ten point intervals (except for the *F* category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of *A*, *B*, *C*, *D*, and *F* is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 8.556 is greater than the F-critical value of 1.3577, it cannot be assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming unequal population variances (see Table 2).

Table 1: F-Test: Two-Sample for Variances		
	Full-time	Part-time
Mean	1.58	2.04
Variance	2.2022	1.6926
Observations	240	70
df	239	69
F	8.556	
P(F <= f) one-tail	0.0037	
F-Critical one-tail	1.3577	

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Fundamentals of Algebra course. The hypothesis tested was that there was no difference in the average grades awarded by part-time versus full-time faculty members (in the population). The two-tail p-value of 0.0116 represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2: T-Test: Two-Sample Assuming Unequal Variances		
	Full-time	Part-time
Mean	1.58	2.04
Variance	2.2022	1.6926
Observations	240	70
Hypothesized Mean Difference	-0.468	
df	126.058	
t-Stat	-2.561	
t-Critical one-tail	1.65	
P(T <= t) two-tail	0.0116	
t-Critical two-tail	1.97	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a part-time or full-time basis, and

academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether a part-time or full-time faculty member taught the course, and measure their relationships with a multiple linear regression model. In this way, we can analyze the relationship between student grades and the employment status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

Tthe multiple regression approach will be utilized here. Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3: Regression Results

Multiple R	0.606
R^2	0.367
Adjusted R^2	0.357
Standard Error	1.168
Observations	1148

ANOVA

	SS	df	MS	F	Sig.
Regression	240.514	5	48.103	35.248	2.11E-28
Residual	414.870	304	1.365		
Total	655.384	309			

Correlations

	Zero-Coefficients	Std. Error	t Stat	Sig.	order	Partial	Part
(Constant)	-0.84	0.29	-2.95	3.45E-03			
Faculty Status	0.10	0.17	0.55	0.58	0.13	0.03	0.03
Day or Evening	0.45	0.34	1.34	0.18	0.18	0.08	0.06
Age	-0.03	0.01	-1.85	0.07	0.10	-0.11	-0.08
Class	8.47E-03	0.11	0.08	0.94	0.13	4.55E-03	3.62E-03
GPA	0.99	0.08	12.37	9.37E-29	0.60	0.58	0.56

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The

adjusted coefficient of multiple determination shown in Table 3 is equal to 0.357, indicating that 35.7 percent of the change in the dependent variable, *grade*, is explained by the set of independent variables (which are student characteristics, except for the faculty member status variable). The F-statistic's high value of 35.248 corroborates the existence of a significant relationship between student grades and the set of independent variables.

Independent variables that would be significant at a 0.58 level of confidence include the following:

1. Faculty member status (part-time or full-time) t-Stat value = 0.55
2. Grade point average (GPA) t-Stat value = 12.37
3. Day or evening t-Stat value = 1.34

None of the other independent variables showed a significant relationship to the course grade. During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students in lower division courses that have a mathematical component different for those students taught by part-time versus full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the Fundamentals of Algebra course and the employment status of the faculty member, i.e., part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Fundamentals of Algebra course. Next in importance was the employment status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members may teach predominantly at times and places where non-traditional students are enrolled. Our data was collected at a single university; thus, our results may lack universal application.

REFERENCES

Bottge, B. (1999). Effects of contextualized math instruction on problem solving of average and below-average achieving students. *The Journal of Special Education*, 33(2), 81-92.

Bottge, B. (2001). Reconceptualizing mathematics problem solving for low-achieving students. *Remedial and Special Education, 22*(2), 102-112.

Bottge, B., M. Heinrichs, Z. Mehta & Y. Hung (2002). Weighting the benefits of anchored math instruction for students with disabilities in general education classes. *The Journal of Special Education, 33*(4), 186-200.

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58-65.

Galagedera, D. (1998). Is remedial mathematics a real remedy? Evidence from learning statistics at tertiary level. *International Journal of Mathematics Education and Science Technology, 29*(4), 475-480.

Kaufman, D. & P. Kaufman (1979). Strategy training and remedial techniques. *Journal of Learning Disabilities*, *12*(6), 63-66.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education* (Fall/Winter), 66-73.

WHAT ARE THE EFFECTS OF PART-TIME INSTRUCTION ON FINAL GRADES IN THE PRINCIPLES OF MANAGEMENT AND ORGANIZATIONAL BEHAVIOR COURSE?

D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
Rob H. Kamery, Nova Southeastern University
robhkamery@yahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Principles of Management and Organizational Behavior course at a comprehensive IIA university. We find that full-time faculty members assign grades 0.22 points higher than those assigned by part-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty member status--i.e., full-time or part-time--is statistically significant at less than a 0.01 level of confidence (p-value = 5.15E-04). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value of 1.59E-65. The model yielded an adjusted R^2 value of 0.250, indicating that 25.0 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

Grades. They label us. They motivate us; they open some doors of opportunity and they close others. Grades provide a sense of relief and exhilaration when one successfully squeaks through calculus-based economics or business statistics underneath the fine tutelage of the toughest faculty members of a college or university, or they may also cause a dismal feeling of despair during the midst of failure when success was anticipated. Grades may liberate one from the halls of academia and culminate in the awarding of the highly coveted college degree, or they may relegate one to another year of football, lab reports, and wishful thinking. Regardless of the course outcome, grades provide a description of performance that may or may not be meaningful.

Most institutions assign grades using a system that includes letter grades assigned to the various levels of performance. Traditionally, grades of *A*, *B*, *C*, *D*, *F*, *W*, and *I* are assigned in association with course outcomes. Normally, this scale considers the grade of *A* to be representative of an outstanding, superior performance, whereas a grade of *F* indicates failure. The grade of *C* represents the average performance between the lowest and highest possible grades.

LITERATURE REVIEW

In a *USA Today* article, Debarros (2003) states that university enrollments have increased, and an increase in institutional applications resulting from college-age Generation Y members will occur during the upcoming decade. Therefore, academic institutions must satisfy their faculty

requirements in accordance with this anticipated increase in students. One method of satisfying such an increased need is through the use of part-time faculty members.

Louziotis (2000) introduces two types of part-time faculty members--practitioners who teach a few classes occasionally, and those who integrate multiple part-time assignments as a method of teaching full-time. Santovec (2004) warns of the risks associated with institutional accreditation if an adherence to faculty requirements is not accomplished. A key concept of regional accreditation advocates the institutional accountability necessary for demonstrating the effectiveness of part-time faculty members with respect to "the overall quality and rigor of undergraduate education and student learning outcomes" (Elman, 2002).

Santovec (2004) notes that the requirements for part-time faculty members are comparable to those of full-time faculty members because part-time faculty members must also satisfy educational requirements, professional credentials, and scholarship requirements. Hence, a part-time faculty candidate must be academically and professionally qualified in order to join the various institutional ranks of faculty members. Further, it is suggested that part-time faculty members are comparable to their full-time counterparts with respect to teaching ability (Roueche, Roueche & Milliron, 1996).

Frakt (2000) notes that 200 of the 450 teaching faculty of Rider University are part-time faculty. Growth of this type is not uncommon, and it occurs among various institutions within both the ranks of community colleges and universities (Leatherman, 1997). Nutting (2003) notes that an oversupply of M.A. and doctoral graduates, reductions in full-time faculty, and a reliance on short-term contracts produces fewer opportunities for academic careers.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Principles of Management and Organizational Behavior course taught at a private comprehensive IIA university. Three part-time and three full-time faculty members were employed to teach the course. Part-time faculty members were classified as adjunct faculty. For the sample of 1,148 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, *grade* in the course (*A, B, C, D, F*)
2. The independent variable, *status of the faculty member* (part-time or full-time)
3. The independent variable, *status of the student* (day or evening student)
4. The independent variable, *student major*
5. The independent variable, *student gender*
6. The independent variable, *student class standing* (freshman, sophomore, junior, senior)
7. The independent variable, *student age*
8. The independent variable, *student GPA*

The dependent variable, *grade*, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, *grade*, is ordinal data, since the interval between the grades can be estimated as being ten point intervals (except for the *F* category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of *A, B, C, D,* and *F* is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 3.272 is greater than the F-critical value of

1.203, it cannot be assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming unequal population variances (see Table 2).

Table 1: F-Test: Two-Sample for Variances		
	Full-time	Part-time
Mean	3.30	3.08
Variance	0.7639	0.8724
Observations	907	241
df	906	240
F	3.272	
P(F <= f) one-tail	0.071	
F-Critical one-tail	1.203	

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Principles of Management and Organizational Behavior course. The hypothesis tested was one of no difference in the average grades awarded by part-time versus full-time faculty members (in the population). The two-tail p-value of 9.768E-04 represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2: T-Test: Two-Sample Assuming Unequal Variances		
	Full-time	Part-time
Mean	3.30	3.08
Variance	0.7639	0.8724
Observations	907	241
Hypothesized Mean Difference	0.22	
df	359.573	
t-Stat	3.325	
t-Critical one-tail	1.65	
P(T <= t) two-tail	9.768E-04	
t-Critical two-tail	1.96	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a part-time or full-time basis, and academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether the course was taught by a part-time or full-time faculty member, and measure their relationships with a multiple

linear regression model. In this way, we can analyze the relationship between student grades and the employment status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

The multiple regression approach will be utilized here. Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3: Regression Results

Multiple R			0.503				
R^2			0.253				
Adjusted R^2			0.250				
Standard Error			0.774				
Observations			1148				
ANOVA							
			SS	df	MS	F	Sig.
Regression			228.956	5.000	45.791	76.406	4.920E-69
Residual			674.228	1125	0.599		
Total			903.185	1130			
Correlations							
	Zero-Coefficients	Std. Error	t Stat	Sig.	order	Partial	Part
(Constant)	1.160	0.189	6.130	1.22E-09			
Gender	0.012	0.047	0.264	0.792	-0.048	0.008	0.007
Class	0.120	0.029	4.080	4.82E-05	0.130	0.121	0.105
Cumulative GPA	0.631	0.035	18.273	1.59E-65	0.483	0.478	0.471
Faculty status	-0.199	0.057	-3.483	5.15E-04	-0.099	-0.103	-0.090
Day or Evening	0.068	0.048	1.433	0.152	0.037	0.043	0.037

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The adjusted coefficient of multiple determination shown in Table 3 is equal to 0.250, indicating that 25.0 percent of the change in the dependent variable, *grade*, is explained by the set of independent variables (which are student characteristics, except for the faculty member status variable). The F-

statistic's high value of 76.406 corroborates the existence of a significant relationship between student grades and the set of independent variables.

Independent variables that would be significant at a 0.01 level of confidence include the following:

1. Faculty member status (Part-time or full-time) t-Stat value = -3.483
2. Grade point average (GPA) t-Stat value = 18.273
3. Class t-Stat value = 4.080

None of the other independent variables showed a significant relationship to the course grade. During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students in upper division courses that have a behavioral component different for those students taught by part-time versus full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the subject course and the employment status of the faculty member, i.e., whether part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Principles of Management and Organizational Behavior course. Next in importance was the employment status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members may teach predominantly at times and places where non-traditional students are enrolled. Our data was collected at a single university; thus, our results may lack universal application.

REFERENCES

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58-65.

DeBarros, A. (2003, January 3). New baby boom swamps colleges, *USA Today*, 1A.

Elman, S. (2002). Part-time faculty and student learning: A regional accreditation perspective. *Peer Review* (Fall), 15-17.

Frakt, P. (2000). Rider University addresses adjunct faculty concerns. *Matrix: The Magazine for Leaders in Higher Education, 1*(4), 21.

Leatherman, C. (1997, December 5). Leader of scholarly groups outline response to growth in use of part-time faculty, *The Chronicle of Higher Education*, A18.

Louziotis, D. (2000). The role of adjuncts: Bridging the dark side and the ivory tower. *Review of Business* (Winter), 47-52.

Nutting, M. (2003). Part-time faculty: Why should we care? *New Directions for Higher Education*, *123*(Fall), 33-39.

Roueche, J.E., S.D. Roueche & M.D. Milliron (1996). In the company of strangers: Addressing the utilization and integration of part-time faculty in American community colleges. *Community College Journal of Research and Practice, 20*, 105-117.

Santovec, M. (2004). Getting the best out of adjunct faculty. *Distance Education Report*, (12), 5-7.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education* (Fall/Winter), 66-73.

AN ANALYSIS OF VARIANCE IN GRADE POINT AVERAGES IN A COMPREHENSIVE IIA UNIVERSITY

D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Rob H. Kamery, Nova Southeastern University
robkamery@yahoo.com

ABSTRACT

This paper analyzes the relationship of students' major, cumulative hours, gender, and ACT score to cumulative GPA. It was found that only the ACT score is a significant predictor of GPA and that there is a positive correlation between the two. Gender also has impact on GPA, but to a lesser extent. The results illustrate that the ACT score explains approximately 20 percent of variance in GPA. Gender has a minimal effect on GPA, with females performing slightly better than males. Major and class standing do not have a significant impact on GPA, and there was not enough evidence that such results are consistent with similar findings due to the lack of studies concentrating on major and class standing. Research was scarce concerning the correlation among major, class standing, and GPA. This may signal that other researchers have also found those factors insignificant.

INTRODUCTION

Willingham (1989) states that a primary objective of testing is to provide standardized assessment of scholastic ability and achievement that is objective and fair for all examinees. During 2003-2004, overall Scholastic Aptitude Test (SAT) scores were relatively unchanged (SAT, 2004). Average verbal scores in the 2003-2004 testing period were 508 (a one-point increase), whereas average mathematics scores were 518 (a one-point decrease). Approximately 1.4 million students took the SAT. During the same period, a fluctuation was observed with respect to the American College Test (ACT). A slight increase was noted with an overall average score of 20.9. Previously, during the period between 1997 and 2001, the overall average ACT score was 21.0. Approximately 1.2 million students took the ACT. East and West coast high school students commonly take the SAT, whereas the ACT is usually taken by high school students in the Midwest (Montante, 2004).

LITERATURE REVIEW

Many factors affect the computation of GPA. Prather, Smith and Kodras (1979) note that one cannot account for the influential variables of personality and artistic ability. They also note that course grades increase with the number of credit hours accumulated, and that student major affects grading outcomes. Pope and Ma (2004) discuss the notion that grades are assets and provide an overview of the value of grades from the student perspective.

Students who take difficult courses manifest lowered rates of GPA and retention (Szafran, 2001). Cushman (2003) describes student pressure against faculty members as an influential factor within the grading process. Beaver (1997) states that most students perceive higher grades as a form of payoff for courses taken. Similarly, Halfond (2004) discusses the notion that students feel entitled to high grades within higher education.

Grade inflation is a consideration when examining the attributes of GPA. Bejar and Blew (1981) define grade inflation as the increase in GPA without a concomitant increase in achievement.

This definition is affirmed by Grove and Wasserman (2004) through the notion that grade inflation is an upward shift in the GPA of students over an extended period of time without a corresponding increase in student academic ability. Therefore, GPA has the potential for increasing quantitatively without properly reflecting the performance manifested and command of subjects that are commensurate with such higher levels of academic aptitude.

METHODOLOGY

A copy was obtained of the final grade report of all undergraduate students for the fall 2003 semester at a private comprehensive IIA university in the Mid-South. This report contained information about a student's gender, major, cumulative hours, current semester hours, cumulative GPA, current semester GPA, and ACT score(s). Only information about gender, major, cumulative hours, and ACT score(s) were used for the study. The data used in the analysis was selected by using a systematic sampling approach, where N individual reports were partitioned into k groups by dividing the size of the population frame N by the desired sample size n (Berenson & Levine, 1999). Thus, every k^{th} individual report was chosen from the list. In this case, every seventh report was part of the study, or 14 percent of the total population.

After the statistical analysis that studied a student's major and class standing individually, the ANOVA test was used to determine if the co-variates (ACT score and gender) have a significant effect on the GPA. After studying the influence of the ACT score on GPA and the relationship between the two, stepwise regression was used with variables of cumulative hours (same as class standing) and gender in order to determine what has a significant effect on GPA.

EMPIRICAL RESULTS

Tables 1-5 present descriptive statistics of the data and results from the statistical tests that were performed. The significance level of all tests was set at $\alpha = .05$. Table 1 contains the results of testing whether the factor *major* has a significant impact on GPA. All the assumptions that must be determined before the ANOVA test can be performed were met. The items were obtained independently and randomly. The Lillifore's test proved that populations are normally distributed, since all the *P*-values were above the significance level. The homogeneous test used determined that populations do have similar variances due to the fact that the Bartlett-box *F*-test's *P*-value was above the significance level. The ANOVA test determined that the factor *major* has no significant impact on GPA.

TABLE 1: INFLUENCE OF MAJOR ON GPA

Major	Average GPA	Lillifore's test	Bartlett-box	ANOVA
		P-Value	F-Test	*F*-Test
Common value			0.961	0.4741
Business	2.9268	0.2		
Science	2.8874	0.1674		
Art	2.7769	0.2		
Engineering	2.7437	0.2		
*Significance at the 0.05 level				

Table 2 presents the outcomes after performing statistical tests to determine whether *class standing* has a significant impact on GPA. Just like with the factor *major*, ANOVA was performed. The assumptions for the ANOVA test were met with both Lillifore's test *P*-value and Bartlett-box *F*-test's *P*-value being above the significance levels. In this analysis, the assumption was accepted, based on test results, that *class standing* does not have a significant influence on GPA.

TABLE 2: INFLUENCE OF CLASS STANDING ON GPA

Population	Average GPA	Lillifore's test	Bartlett-box	ANOVA
		P-Value	*F*-Test	*F*-Test
Common value			0.9	0.5932
Freshmen	2.7808	0.2		
Sophomores	2.8553	0.0893		
Juniors	2.8581	0.2		
Seniors	2.9952	0.2		
*Significance at the 0.05 level				

Table 3 presents the results for testing whether gender has a significant influence on GPA. The *t*-test was performed in order to establish if there is a significant correlation between the factor *gender* and GPA. Results of the *t*-test indicate that there is a significant difference between male and female GPAs. This result confirms and agrees with the results from other studies done in the area of gender influencing GPA (Jones & McSpirit, 1999).

TABLE 3: INFLUENCE OF GENDER ON GPA

Population	Average GPA	*t*-Test *P*-Value
Common value		0.017
Males	2.7808	
*Significance at the 0.05 level		

Table 4 shows the results of the tests performed to examine the correlation between the ACT score and GPA. After close examination of the plotted data, it was concluded that both variables are significantly related, with the correlation coefficient $r = .44918$. The regression equation that was derived had a form of: $Y = 1.17 + .065*X$.

TABLE 4: INFLUENCE OF ACT ON GPA

Variables	Values
b_0	1.17000
b_1	0.06500
R^2	0.20000

r-value	0.44918
P-value	0.00000
Watson value	1.97000
*Significance at the 0.05 level	

It was indicated that the model does explain a significant amount of variation in the dependent variable. The coefficient of determination is .20. This indicates that the model explains 20 percent of the variation in the dependent variable and it offers proof that the model is significant. This result is close to what McCoach & Ruban (2001) stated in their findings on the subject. The data set does meet all the assumptions that need to be true for regression analysis. It indicates that the ACT score does affect GPA linearly, and the mean of all possible GPAs for a given ACT score falls on the point that lies on the regression line. Each error component is normally distributed. Variance around the regression line is constant for all values of *X*, thus homoscedasticity is evident. It has been determined that the errors are independent of each other. This was concluded on the basis of the Watson value of 1.97. The Watson value is high enough, and so it is possible to conclude that no autocorrelation took place and the errors are independent of each other.

At the end of all the statistical tests that were performed for determining whether the factors *major*, *class*, or *ACT score* have any significant influence on GPA individually, the ANOVA test was performed for major and class standing in order to determine whether the co-variance of ACT score and gender have a significant effect upon GPA. The results of these tests are listed in Table 5. After performing this test for major and class standing, it can be concluded that the factors *major* and *class standing* did not explain any of the variation in a student's GPA. However, ACT scores do have a significant impact on GPA, and there was some evidence of the fact that gender does have some impact on GPA, even though the results of *P*-value in both major and class tests were inconclusive. Also, a stepwise regression analysis was performed, introducing the independent variables of cumulative hours and gender. It was determined that of the three variables--*gender*, *class*, and *ACT score*--only ACT score had significant impact on GPAs. These findings are consistent with the results of the individual statistical tests performed. These results also agree with other studies conducted on this subject matter for those particular factors.

TABLE 5: ANCOVA TEST RESULTS

Variables	ANCOVA Test--Gender	ANCOVA Test--Major
ACT Score	have effect *P* = 0	have effect *P* = 0
Gender	inconclusive *P* = .086	inconclusive *P* = .053
Major	N/A	no effect
Class	no effect; *P*-Value = .037	N/A

CONCLUSION

This paper examines whether factors such as a student's *major*, *class standing*, *gender*, and *ACT score* have a significant impact on the GPA. The results illustrate that, out of the four factors stated above, the ACT score has the most significant impact on GPA by explaining about 20 percent

of its variance. This result is consistent with similar studies (McCoach & Ruban, 2001). The gender of a student has a minimal effect on GPA with females performing slightly better than males. This result is also consistent with similar studies (Jones & McSpirit, 1999). It has been concluded that major and class standing do not have a significant impact on GPA, and there was not enough evidence found that such results are consistent with similar findings due to the lack of studies concentrating on major and class standing. Not much research was found concerning the correlation among student major and class standing and GPA. This may signal that other researchers have also found those factors insignificant. Thus, further research may be needed.

REFERENCES

Beaver, W. (1997). Declining college standards: It's not in the courses, it's the grades. *The College Board Review, 181*, 2-7, 29.

Bejar, I. & E. Blew (1981). Grade inflation and the validity of the scholastic aptitude test. *College Board Report, 182*, 143-156.

Berenson, M. & D. Levine (1999). *Basic business statistics (Seventh Edition)*. Englewood Cliffs, NJ: Prentice-Hall, Publishers.

Cushman, T. (2003). Who best to tame grade inflation? *Academic Questions* (Fall), 48-56.

Grove, W. & T. Wasserman (2004). The life-cycle pattern of collegiate grade point average: Longitudinal cohort analysis and grade inflation. *Journal of Economic Education* (Spring), 162-174.

Halfond, J. (2004). Grade inflation is not a victimless crime. *EBSCO Host Research Databases*, Academic Search Premier. 08827729.

Jones, K. & S. McSpirit (1999). Grade inflation rates among different ability students, controlling for other factors. *Education Policy Analysis Archives, 7*(30).

McCoach, B. & M. Ruban (2001). Gender similarities and differences in pre-college factors, self-regulated learning and academic achievement among post-secondary students. *Michigan State University Working Paper*-August 1, 2001.

Montante, S. (2004). The ACT English test: If the mere thought of the SAT sends you into a panic, let LC introduce you to a kinder, gentler standardized test. *Literary Cavalcade*, (3), 27.

Pope, N. & Y. Ma (2004). Grade-risk: An insurable event in the classroom. *Risk Management and Insurance Review, 2*(7), 189-195.

Prather, J., G. Smith, J. Kodras (1979). A longitudinal study of grades in 144 undergraduate courses. *Research in Higher Education, 10*(1), 11-24.

SAT (2004). SAT, ACT scores steady. *Reading Today*, (10/11), 17.

Szafran, R. (2001). The effect of academic load on success for new college students: Is lighter better? *Research in Higher Education, 42*(1), 27-50.

Willingham, W. (1989). Standard testing conditions and standard score meaning for handicapped examinees. *Applied Measurement in Education, 2*(3), 97-103.

WHAT ARE THE EFFECTS OF PART-TIME TEACHING ON GRADES IN THE DEVELOPMENTAL ENGLISH COMPOSITION COURSE AT PRIVATE UNIVERSITY?

D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
Rob H. Kamery, Nova Southeastern University
robhkamery@yahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Developmental English Composition course at a comprehensive IIA university. We find that part-time faculty members assign grades 0.83 points higher than those assigned by full-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty status--i.e., full-time or part-time--is statistically significant at less than a 0.01 level of confidence (p-value approaches zero). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value approaching zero. The model yielded an adjusted R^2 value of 0.416, indicating that 41.6 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

"Beneath the rule of men entirely great, the pen is mightier than the sword" is a popular quote by Edward George Bulwer Lytton. This quote suggests the power of the written word for accomplishing some purpose. Numerous students have pondered the significance of Lytton's quote during periods of matriculation among the literature and composition classes of U.S. colleges and universities. Regardless of the individual academic outcomes, each of these students shared one common theme within the context of written expression: grading.

Every academic institution is different, and each entity manifests many unique grading characteristics and styles. There is no known single cause for inflated grades, but numerous suggestions exist that may contribute to the rising trend of grading over time. Some arguments find that enrollment issues are a contributing factor (Rojstaczer, 2003) and others suggest that faculty evaluations influence higher grades (Potter, Nyman & Klumpp, 2001). Other arguments suggest that student consumerism contributes to an increase in grades over time (Delucchi & Korgen, 2002). Student pressure is also a potential factor of inflated grades (Study reveals, 2004). Van Ness, Van Ness and Kamery (1999a, 1999b) investigate the differences between part-time and full-time faculty grading outcomes as a contributing factor of grade inflation. Regardless of the possible reasons, grade inflation continues to exist.

LITERATURE REVIEW

Colleges and universities across the nation are increasingly relying on the use of part-time faculty members. These faculty members provide a wealth of practical, applied experience and knowledge within the academic setting and generally satisfy only teaching responsibilities. McGee

(2002) confirms this concept through the historical observation that part-time faculty members were considered to be "specialists, though not necessarily celebrities, hired to provide particular expertise not available among the permanent faculty and rewarded with compensation and privileges commensurate with their rank." Louziotis (2001) notes that part-time faculty members are intended to supplement, but not replace, the ranks of full-time faculty members.

Numerous colleges and universities implement part-time faculty as a primary component of their business and teaching models. According to the National Center for Education Statistics (n.d.), during 2003 there were 1.1 million faculty members employed by degree-granting, post-secondary institutions, and roughly 50 percent were part-time faculty members.

Examples of part-time faculty implementation are seen among both community colleges and four-year colleges and universities. The use of part-time faculty presents an affordable method of replacing retiring faculty, and it allows the opportunity for institutions to maintain and provide greater access for educational endeavors without necessitating excessive expenditures (Winter & Kjorlein, 2001). Increasingly, institutions are integrating part-time faculty members.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Developmental English Composition course taught at a private comprehensive IIA university. Three part-time and three full-time faculty members were employed to teach the course. Part-time faculty members were classified as adjunct faculty. For the sample of 370 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, *grade* in Developmental English Composition (*A, B, C, D, F*)
2. The independent variable, *status of the faculty member* (part-time or full-time)
3. The independent variable, *status of the student* (day or evening student)
4. The independent variable, student *major*
5. The independent variable, student *gender*
6. The independent variable, student *age*
7. The independent variable, student *class standing* (freshman, sophomore, junior, senior)
8. The independent variable, student *GPA*

The dependent variable, *grade*, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, *grade*, is ordinal data, because the interval between the grades can be estimated as being ten point intervals (except for the *F* category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of *A, B, C, D,* and *F* is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 0.365 is less than the F-critical value, which is close to 1.50, it can be assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming equal population variances (see Table 2).

Table 1: F-Test: Two-Sample for Variances		
	Full-time	Part-time
Mean	2.02	2.85
Std. Deviation	1.146	1.041
Observations	52	85
df	51	84
F	0.365	
P(F ≤ f) one-tail	1	
F-Critical one-tail	~1.50	

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Developmental English Composition course. The hypothesis tested was one of no difference in the average grades awarded by part-time vs. full-time faculty members (in the population). The p-value, which approaches zero, represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2: T-Test: Two-Sample Assuming Equal Variances		
	Full-time	Part-time
Mean	2.02	2.85
Std. Deviation	1.146	1041
Observations	52	84
Hypothesized Mean Difference	-0.83	
df	135	
t-Stat	-4.34	
t-critical one-tail	1.66	
P(T t) two-tail	0.408	
t-critical tw o-tail	1.98	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a full-time or part-time basis, and academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether the course was taught by a part-time or full-time faculty member, and measure their relationships with a multiple linear regression model. In this way, we can analyze the relationship between student grades and

the employment status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

Only the multiple regression approach will be utilized here (Kamery, Williams & Kugele, 2004). Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3: Regression Results

Multiple R	0.673						
R^2	0.452						
Adjusted R^2	0.416						
Standard Error	0.916						
Observations	137						
ANOVA							
	SS	df	MS	F	Significance F		
Regression	61.76	6	10.294	12.259	~0		
Residual	74.74	89	0.840				
Total	136.500	95					
Correlations							
	Zero-Coefficients	Std. Error	t Stat	Sig.	order	Partial	Part
(Constant)	-1.31	1.25	-1.05	0.30			
Age	0.04	0.06	0.65	0.51	0.03	0.07	0.05
Gender	0.34	0.20	1.70	0.09	0.08	0.18	0.13
Major	-0.01	0.01	-0.71	0.48	-0.12	-0.08	-0.06
Student Class	0.16	0.35	0.46	0.65	0.10	0.05	0.04
Cumulative GPA	0.55	0.09	6.19	0.00	0.60	0.55	0.49
Faculty status	0.78	0.22	3.61	0.00	0.42	0.36	0.28

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The adjusted coefficient of multiple determination shown in Table 3 is equal to 0.416, indicating that 41.6 percent of the change in the dependent variable, *grade*, is explained by the set of independent variables (which are student characteristics, except for the faculty member status variable). The F-

statistic's value of 12.259 corroborates the possibility of the existence of a significant relationship between student grades and the set of independent variables. Independent variables that would be significant at a 0.01 level of confidence include the following:

1. Faculty member status (part-time or full-time) t-Stat value = 3.61
2. Grade point average (GPA) t-Stat value = 6.19

None of the other independent variables showed a significant relationship to the course grade. During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students enrolled in native vs. non-native speaking Developmental English Composition different if taught by part-time or full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the Developmental English Composition course and the employment status of the faculty member, i.e., whether part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Developmental English Composition course. (Many students enrolled in the evening program have previously earned college credits, thus the presence of the independent variable, *GPA*.) Next in importance was the employment status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members teach predominantly at times and places where non-traditional students are enrolled.

REFERENCES

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58-65.

Delucchi, M. & K. Korgen (2002). "We're the student--we pay the tuition": Student consumerism among undergraduate sociology majors. *Teaching Sociology, 30*(1), 100-107.

Louziotis, D. (2000). The role of adjuncts: Bridging the dark side and the ivory tower. *Review of Business* (Winter), 47-52.

McGee, M. (2002). Hooked on higher education and other tales from adjunct faculty organizing. *Social Text, 20*(1), 61-80.

National Center for Education Statistics. (n.d.) *Digest of Education Statistics, 2003*. Retrieved June 12, 2005, from http://www.nces.ed.gov//programs/digest/d03

Potter, W., M. Nyman & K. Klumpp (2001). Be careful what you wish for: Analysis of grading trends at a small liberal arts college, grade inflation or progress? *College and University*, *76*(4), 9-14.

Rojstaczer, S. (2003, Janurary 28). Where all grades are above average, *The Washington Post*, A21.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education* (Fall/Winter), 66-73.

Study reveals (2004). Study reveals faculty attitudes about grade inflation. *The Teaching Professor*, (11), 5-6.

Van Ness, B.F., R.A. Van Ness & R.H. Kamery (1999a). The effect of part-time instruction on grades in principles of economics. *Journal of Business and Economic Research, 2*(1), 68-76

Van Ness, B.F., R.A. Van Ness & R.H. Kamery (1999b). The effect of part-time instruction on grades in principles of finance. *Financial Practice and Education, 9*(2), 105-110.

Winter, P. & C. Kjorlien (2001). Business faculty recruitment: The effects of full-time versus part-time employment. *Community College Review, 29*(1), 18.

REDESIGNING AN MBA DEGREE PROGRAM

Khalid M. Dubas, Fayetteville State University
kdubas@uncfsu.edu
Lewis Hershey, Fayetteville State University
lhershey@uncfsu.edu

ABSTRACT

An MBA Curriculum Committee was set up in spring 2005 to redesign the MBA curriculum at Fayetteville State University. The committee decided to set up a website at blackboard.uncfsu.edu, a service provided by blackboard.com for Fayetteville State University. The website facilitated communication among the committee members and served as a notice board and a convenient place for communication and documents. The lead author of this manuscript served as one of two coordinators of the MBA Curriculum Committee. The committee successfully redesigned the MBA curriculum in one month and presented the redesigned curriculum proposal to the MBA programs director for implementation.

INTRODUCTION

The MBA Curriculum Committee was formed on March 23, 2005 at Fayetteville State University. The committee elected two coordinators and set up a website on March 25, 2005 at blackboard.uncfsu.edu. All committee members and the MBA program director were enrolled in and had access to this website. The committee website was conceived by the second author of this article. This website served as an online meeting place for committee members to express their ideas about improving the MBA Curriculum and other aspects of the MBA program. These ideas are available at the website for all committee members and the MBA program director.

By utilizing the resources at blackboard.uncfsu.edu and through online interaction, the committee developed the updated MBA curriculum proposal. MBA curriculum was reevaluated and updated in comparison with the MBA programs offered by other universities in North Carolina. The committee unanimously approved this proposal after detailed online discussion of the proposal. Finally, the revised curriculum proposal was again unanimously approved on April 27, 2005 during a physical meeting that was called at the request of the MBA program director. The unanimously adopted Updated MBA Curriculum Proposal along with the minutes of this meeting were presented to the MBA program director and made available in Course Documents of the committee's website at blackboard.uncfsu.edu. The committee adjourned on May 5, 2005 for spring 2005.

MISSION STATEMENTS

The revised MBA curriculum proposal incorporated the mission statement of the School of Business & Economics.

Table 1: Mission Statements of FSU and SBE

Fayetteville State University Mission Statement	School of Business and Economics Mission Statement
Fayetteville State University is a public comprehensive regional University, offering degrees at the baccalaureate, master's and doctoral levels. The primary mission of Fayetteville State	Fayetteville State University has a long tradition of providing educational access to a diverse student population, which seeks a relevant learning experience in the liberal arts and professions. The

University is to provide quality education to its students through a basic liberal-arts foundation, specialized professional training, and specific graduate programs. Committed to excellence in teaching, research, and service to the community, the university seeks to prepare its students and graduates to lead meaningful and productive lives. In doing so, Fayetteville State University strives to produce creative thinkers and leaders who will reach beyond current intellectual and cultural boundaries to become the change agents for shaping the future of America and the world.	School of Business and Economics builds upon the University's strong teaching orientation, supplementing it with pedagogical and applied research. The School graduates students who possess a sound understanding of business concepts and applications seeking careers in management, government, and professional disciplines. The School also serves the community as a catalyst for spurring economic development and assisting in economic education.

Source: *The FSU Undergraduate Catalog 2004-06.*

COMMITTEE MEMBERS BY SPECIALIZATION

The MBA curriculum committee had representatives from all fields of specialization in business and economics.

Table 2: MBA Curriculum Committee (spring-fall 2005)

Field or Specialization	Number of committee members
Accounting	1
Economics	2
Finance	2
Management	5
Marketing	2

THE REVISED MBA CURRICULUM PROPOSAL

The Updated MBA Curriculum Proposal – April 27, 2005

A Summary of Major Changes between the Present and the Proposed Curriculum

1. Each foundation course is 3 credit hours instead of the previous 1.5 credit hours.
2. Some courses are renumbered to reflect the sequence in which they should ideally be studied.
3. No concentrations are offered.

Foundation Courses

Up to six foundation courses would be required for students without a business degree

Proposed (3 credits, each course)	At Present (1.5 credits, each course)
BADM 530 Statistics	BADM 591 Statistics I BADM 592 Statistics II
ECON 540 Economics	ECON 591 Microeconomics ECOM 592 Macroeconomics
ACCT 550 Accounting	ACCT 591 Financial Accounting ACCT 592 Managerial Accounting
MGMT 560 Management Science	MGMT 625 Management Science
FINC 570 Finance	FINC 591 Finance I FINC 592 Finance II
MKTG 580 Marketing	MKTG 591 Marketing

.

Required Core Courses The following eight core courses would be required of all students	
Proposed (eight courses)	At Present (eight courses)
MGMT 600 Operations Management	MGMT 591 Management MGMT 592 Communications
ECON 610 Managerial Economics	ECON 610 Managerial Economics
ACCT 610 Advanced Managerial Accounting	ACCT 610 Advanced Managerial Accounting
FINC 610 Advanced Financial Management	FINC 610 Advanced Financial Management
MGMT 615 Organizational Behavior	MGMT 615 Organizational Behavior
MGMT 640 Management Information Systems	MGMT 640 Management Information Systems
MKTG 650 Marketing Planning and Strategy	MKTG 610 Marketing Planning and Strategy
MGMT 650 Business Policy and Strategy	MGMT 650 Business Policy and Strategy

Electives by Subject Areas	
Proposed (choose a minimum of four courses)	At Present (choose a minimum of four courses)
Accounting	Accounting
ACCT 650 International Accounting ACCT 670 Internal and Operational Auditing ACCT 695 Seminar in Accounting	ACCT 650 International Accounting ACCT 670 Internal and Operational Auditing ACCT 695 Seminar in Accounting MGMT 695 Seminar in Management
Economics	Finance
ECON 650 International Trade & Financial Markets ECON 660 Business and Economics Forecasting ECON 695 Seminar in Economics	ECON 650 International Trade & Financial Markets ECON 660 Business and Economics Forecasting
Entrepreneurship	Entrepreneurship
MGMT 665 Total Quality Management MGMT 675 New Ventures and Entrepreneurship MKTG 660 Marketing Research BADM 695 Special Topics in Business	BADM 603 Special Topics in Business MGMT 665 Total Quality Management MGMT 675 New Ventures and Entrepreneurship MKTG 660 Marketing Analysis and Research
Finance	Finance
FINC 655 International Finance FINC 660 Financial Institutions FINC 670 Investment Analysis FINC 680 Derivative Securities FINC 695 Seminar in Finance	ECON 650 International Trade & Financial Markets ECON 660 Business and Economics Forecasting FINC 655 International Finance FINC 660 Financial Institutions FINC 670 Investment Analysis FINC 680 Option and Futures Trading FINC 695 Seminar in Finance
International Business	International Business
ACCT 650 International Accounting BADM 605 International Business Law FINC 655 International Finance MGMT 660 International Business Management MKTG 690 International Marketing	ACCT 650 International Accounting BADM 604 International Business Law FINC 655 International Finance MGMT 660 International Business Management MKTG 650 International Marketing
Management	Management
MGMT 655 Management of Technology MGMT 660 International Business Management MGMT 665 Total Quality Management MGMT 685 Leadership in Organization MGMT 695 Seminar in Management	MGMT 655 Management of Technology MGMT 660 International Business Management MGMT 665 Total Quality Management MGMT 685 Leadership in Organization MGMT 695 Seminar in Management

Marketing	Marketing
MKTG 660 Marketing Research	MKTG 592 Marketing Research
MKTG 670 Promotions	MKTG 650 International Marketing
MKTG 675 Services Marketing	MKTG 660 Marketing Analysis and Research
MKTG 680 Product Development & Management	MKTG 675 Services Marketing
MKTG 690 International Marketing	MKTG 695 Seminar in Marketing
MKTG 695 Seminar in Marketing	

A SUMMARY OF WEBSITE USAGE BY MEMBERS

Blackboard.com allows the committee chairman to monitor the participation by its committee members.

Table 3: Committee Website usage - March 26-May 5, 2005

	ADDRESS BOOK	GLOSSARY	CHALK TITLE MANAGEMENT	COLLABORATION	CONTENT AREA	COMMUNICATIONS AREA	ROSTER	TOOLS AREA	DISCUSSION BOARD	DROPBOX	HOMEPAGE	THE ELECTRIC BLACKBOARD	GRADEBOOK	MANUAL	MESSAGES	OBSERVER TOOLS	RESOURCES	STAFF INFORMATION	TASKS	ANNOUNCEMENTS	CALENDAR	EMAIL	PERSONAL INFORMATION	MY GRADES	
Dubas, Khalid (kdubas)	0	0	0	0	399	4	0	0	1640	0	0	0	0	0	0	0	0	0	0	493	0	71	0	0	2607
Herd, Ann (aherd)	0	0	0	0	3	0	0	0	114	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	122
Hershey, Lewis (lhershey)	0	0	0	0	16	4	0	2	214	4	0	1	1	0	0	0	0	0	0	10	0	3	0	0	255
Larkin, Patrick (plarkin)	0	0	0	0	26	6	1	3	702	0	0	0	1	0	0	0	0	3	0	142	0	0	0	0	884
Lee, Baeyong (blee)	0	0	0	0	20	1	0	0	498	0	0	0	0	0	0	0	0	1	0	30	0	0	0	0	550
Nijhawan, Inder (inijhawan)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Souissi, Mohsen (msouissi)	0	0	0	0	2	0	0	0	24	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	30
Stechschulte, Paula (pstechschulte)	0	0	0	0	8	8	0	0	54	0	0	0	1	0	0	0	0	2	0	5	0	6	0	0	84
Tavakoli, Assad (atavakoli)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truong, Dothang (dtruong)	0	0	0	0	45	7	0	1	491	0	0	0	0	0	0	0	0	5	0	23	0	2	0	0	574
Wane, Abdoul (awane)	0	0	0	0	3	0	0	0	25	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	33
Wishart, Craig (cwishart)	0	0	0	0	11	4	0	0	127	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	147
Guest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	534	34	1	6	3889	4	0	1	3	0	0	0	0	12	0	722	0	82	0	0	5288

RECOMMENDATIONS

Use of a website like that hosted by blackboard.com is an excellent way to expedite communication among committee members all of whom otherwise may not be able to physically meet at the same place and time. This electronic means of communication is an excellent supplement to physical meetings that may be necessary to take a physical vote if required. The online communication, discussion, and documents become available to all members for future reference.

EVALUATING EVALUATIONS: A REVIEW OF A STUDENT EVALUATION OF FACULTY PROCESS

Joseph G. Glynn, Canisius College
glynn@canisius.edu
Paul L. Sauer, Canisius College
sauer@canisius.edu
Gregory R. Wood, Canisius College
gwood@canisius.edu

ABSTRACT

This work reports results of a project designed to assess the validity of a student evaluation of faculty process in a business school at a small private college. A student evaluation instrument was developed, pilot-tested, and implemented in 1980. For the past 25 years, scale scores derived from student responses have been used as a part of the annual evaluation of faculty for promotion, merit pay and evidence of teaching success. This study has never been replicated and there is concern that the three scales may not currently be representative. In this study we apply exploratory factor analysis to evaluations conducted over the past ten years to determine if and how the factor structure may have changed.

INTRODUCTION

The study was undertaken at a comprehensive mid-size private college in an urban area of the northeastern United States. The college was founded in 1870 and has been offering programs in business administration since the early 1900s. The business school is one of three education divisions at the host college and was officially established as a separate division in 1957. AACSB International first accredited the business school in 1977. There is both an undergraduate and a graduate division. Students in both the undergraduate and graduate programs overwhelmingly come from the local MSA. The undergraduate division offers seven majors: accounting, management, marketing, finance, economics, information systems, entrepreneurship and a recently developed major, international business. There are currently about 800 undergraduates enrolled in the business school. The graduate division offers four programs: a full-time one-year MBA, and three part-time evening MBA programs including two MBAs in accounting. The full-time day MBA program has about 20 students enrolled, and the part-time evening MBA programs have approximately 230 students actively enrolled.

STUDENT PROFILES

This project concerns itself primarily with the course evaluation survey used by students at the completion of their business courses. However, since 1990, the business school has administered a variety of student surveys that help us understand the changing characteristics of our students over time. These surveys have provided useful information to support outcomes assessment, curricular development, and more recently, assessment of learning. In 1997 a series of surveys was developed and have since been consistently used to elicit information from graduating undergraduates, incoming MBAs, graduating MBAs, and MBA alumni. A few items from these surveys provide insight to student impressions of "educational quality" and are presented below.

Our undergraduate student population has been transitioning from a predominantly commuter group to on-campus residents. Campus dormitories, student apartment complexes, and other housing accommodations have increased over the last decade. The percent of women in the business school has ranged from about 38 percent to slightly over 50 percent in the past decade. Table 1 presents reported majors of graduating seniors. The "Other" category in Table 1 includes dual majors, majors not currently offered, and the few students in the new international business major.

Table 1: Graduating Seniors - Major

		1997	1998	1999	2000	2001	2002	2003	2004	Total
Accounting	n	23	32	15	28	10	14	13	22	157
Economics	n	4	5	2	4	0	4	1	2	22
Finance	n	17	21	15	36	28	40	39	42	238
IS	n	5	9	18	15	18	16	19	18	118
Management	n	26	33	39	39	32	48	52	66	335
Marketing	n	8	24	8	13	14	18	23	24	132
Other	n	6	11	8	10	9	14	12	29	99
Total	n	89	135	105	145	111	154	159	203	1101

Table 2 depicts results for two items on the graduating senior survey that indicate how satisfied the students were with respect to knowledge gained in business administration. Please note that a five-point scale of agreement was employed on these items. The results are very positive and stable over the time frame of 1997-2004. The students consistently agreed that they had developed a working knowledge of the functional areas of business (overall average of 4.48), and had developed expertise with respect to their major field (4.31).

Since the vast majority of our MBA students are enrolled in the part-time evening programs, and most of them are employed full-time, a more detailed profile is provided than was for our undergraduate students. Table 3 shows that the percentage of women declined between 1999 and 2003, but has appeared to recover in 2004. Representation in the =25 age group has grown concurrently with growth in the unemployed status. Clearly, more students are beginning MBA studies immediately or shortly after graduation from their undergraduate programs.

Table 4 shows results for recently graduated MBA students. The four items represented in Table 4 divulge that our MBA students were very satisfied with these measures of overall quality in the graduate business program. The reader is cautioned to take note that while Table 2 above used a five-point scale of agreement, Table 4 employs a seven-point scale of excellence. The quality dimension items of Table 4 have been ordered from highest to lowest on the basis of overall or total average. MBA graduates were consistent in their high ratings of all four items.

Table 2: Graduating Seniors' Ratings Of Two Quality Dimensions of Education										
[1=Strongly Disagree … 5=Strongly Agree]										
My Education Has Helped Me To:		1997	1998	1999	2000	2001	2002	2003	2004	Total
Develop working knowledge of the functional areas of business	Mean	4.61	4.46	4.44	4.50	4.34	4.46	4.52	4.50	4.48
	n	89	136	106	145	116	156	160	206	1114
Develop expertise with respect to my major field	Mean	4.37	4.31	4.38	4.36	4.03	4.31	4.28	4.36	4.31
	n	89	136	106	146	116	157	160	206	1116

Table 3: Descriptive Student Profiles of New Part-Time MBA Matriculates										
Characteristic		1997	1998	1999	2000	2001	2002	2003	2004	Total
Gender		%	%	%	%	%	%	%	%	%
	Female	50.8	31.6	54.8	52.4	46.8	42.9	41.8	49.0	46.3
	Male	49.2	68.4	45.2	47.6	53.2	57.1	58.2	51	53.7
Age	25	27.4	31.6	34.9	40.5	38.7	42.6	40.9	40.0	37.3
	26-35	62.9	55.3	55.8	45.3	40.3	45.9	39.4	44	48.1
	=36	9.7	13.2	9.3	14.3	21	11.5	19.7	16	14.6
UG Major	Bus/Econ	59.7	54.0	65.9	47.7	56.3	50.8	61.2	44.0	55.2
	Other	40.3	46	34.1	52.3	43.7	49.2	38.8	56	44.8
Employment	Full-time	88.7	86.5	81.8	78.0	77.4	88.7	75.0	77.1	81.7
Status	Part-time	1.6	5.4	13.6	2.4	9.7	1.6	7.8	6.3	6.0
	Unem-ployed	9.7	8.1	4.5	19.5	13	9.6	17.	16.7	12.4
Management	Upper	1.9	6.3	2.9	7.1	4.4	3.8	6.3	5.6	4.5
Position In	Middle	27.8	25.0	17.1	25.0	20.0	17.3	25.0	30.6	23.3
Organization	Super-visory	11.1	21.9	20.0	14.3	13.3	9.6	6.3	13.9	13.0
	Non-Mgt	59.3	46.9	60	53.6	62.2	69.2	62.5	50	59.1

Graduate school faculty should feel great satisfaction in noting that Knowledge of Professors and Commitment of Faculty are the two highest rated of the items. The MBA graduates were also very impressed with the Overall Quality of Graduate Business Program and, to a somewhat lesser but still very positive degree, the Relevance of Material.

Table 4: Recent Part-Time MBA Graduates' Ratings of Graduate Business Program Attributes
[1=Poor … 7=Excellent]

Attribute		1997	1998	1999	2000	2001	2002	2003	2004	Total
Knowledge of Professors	mean	5.89	5.94	6.16	5.76	5.90	5.78	5.92	6.16	5.94
	n	56	63	37	46	63	36	49	49	399
Commitment of Faculty	mean	5.64	5.77	6.00	5.57	5.70	5.53	5.73	5.82	5.72
	n	56	62	37	46	63	36	49	49	398
Overall Quality of Grad	mean	5.59	5.57	5.66	5.17	5.57	5.33	5.59	5.71	5.53
Business Program	n	56	63	38	46	63	36	49	49	400
Relevance of Material	mean	5.41	5.16	5.31	5.07	5.16	5.17	5.35	5.45	5.26
	n	36	63	39	46	63	36	49	49	401

GENESIS OF STUDENT EVALUATION INSTRUMENT

In 1979, two faculty members undertook a project to develop a student evaluation of faculty instrument for the business school. Uncopyrighted survey instruments from eight other colleges and universities were examined, and items were selected for discussion by faculty. A process of developing new items, rewriting, discussing, and eliminating items ensued, ultimately culminating in a 37-item survey that was administered in the fall of 1979. After a year of pilot-testing and psychometric analysis (Gent, 1981), the instrument was reduced to its current 24-item form. Scales were developed via principle components analysis yielding three principle component or factor composites: classroom teaching effectiveness, grading and feedback, and course preparation and organization.

The college has used this survey instrument and its three associated scale composites since 1980. Faculty are not required to use this instrument, but are required to provide evidence of teaching effectiveness as part of an annual professional activity report. Most faculty, with very few exceptions, have opted to utilize this instrument. In the assessment of teaching effectiveness, departmental peer evaluation committees, the Dean of the Business School, and the college-wide Committee on Faculty Status have all utilized the scale scores provided as part of the output of the faculty evaluation instrument.

A number of past studies have demonstrated multidimensionality of evaluation scales. There appear to be about four-student evaluation of teaching (SET) scales in the literature. One of these is the SEER scale developed by Marsh. It consists of 35 Items and is divided into sections identified by a subhead. The SEER scale has been shown to have 9 dimensions (Marsh & Hocevar, 1984), but the dimensionality has been challenged by Abrami and d'Apollonia (1991), who performed principle components analysis to show that the SEER scale has at most only 2 dimensions. d'Apollonia and Abrami (1997) also found unidimensionality for five other student evaluation scales.

One reason for the finding of a single dimension can be based on information processing theory that says that an overall schema exists in the mind of the student for the individual being rated. This schema functions to reduce cognitive effort and to cue the student's response to more specific items as though a halo effect across specific items affects all ratings (d'Appolonia & Abrami, 1997; Trebinski, 1985). Because this represents the cognitive process designed to reduce

effort in rating teachers, it is reasonable to argue that the distinction between the various dimensional capabilities of teachers is being masked by this general impression. We shall examine the consistency of the high variance single dimension across several schemes of categorizing the courses.

METHODOLOGY

All undergraduate and MBA courses were classified into one of four groups: quantitative, technical, conceptual, or not classifiable. To be classified in one of the first three categories, the course content had to be composed of at least 70 percent of material from that category. If the course did not satisfy the 70-percent rule is was designated as not classifiable. The three researchers independently categorized courses. The researchers then met to discuss variances in the classifications, and consensus was reached concerning each course. Department chairs and/or the faculty teaching the courses were contacted to review and confirm classifications.

We adopted a common factor model and ran principle axis factor analysis utilizing pairwise deletion of missing values. In order to achieve the desired simple structure and interpretable factor solution, a series of orthogonal (varimax and quartimax) and oblique (promax) rotations were run. We employed the following criteria when attempting to identify the appropriate number of solutions, placing the greatest weight on interpretability of the factor solution: scree plot; minimum eigenvalue of 1.0; and, parsimony, simple structure, and interpretability of factor solution.

RESULTS

Analyses for all combinations of degree (undergraduate, full-time MBA, and part-time MBA) and course classification (quantitative, technical, conceptual, and not classified) were run. The inclusion of analyses for totals (i.e., total for all quantitative courses or total for all undergraduate courses) yields 20 separate analyses. Table 5 displays eigenvalues for the first three principle axis factors extracted. Eigenvalues represent the amount of common variance among the 24 survey items that is accounted by each factor. The larger the eigenvalue, the more variance accounted for and the more important the factor is. The eigenvalues all indicate a very high percent of variance explained by the first factor before rotation. The results clearly show the dominance of one-factor solutions and provide strong support for d'Apollonia and Abrami's (1997) findings of unidimensionality.

Factor loadings represent correlations between the evaluation survey items and the identified factors. Each survey item has a factor loading on each factor. A large factor loading divulges a strong association between the survey item and the factor. Table 6 shows the range (largest-smallest) of the absolute value of factor loadings on the first factor of each analysis. Only 23 of the 24 survey items are included. The omitted item is "The instructor generally used the full class period." This item was never intended to contribute to evaluation of teaching effectiveness, but was added to the evaluation form at the request of a college administrator. The consistently large factor loadings on factor 1 for each model underscore the fact that all survey items are strongly associated with one factor. This is further strong support for the unidimensionality of the data.

Table 5: Eigenvalues of First Three Factors and Sample Sizes for All Combinations of Degrees and Course Classifications

	Undergraduates		Full-Time Day MBA's		Part-Time Evening MBAs		Total	
	n	Eigenvalue	n	Eigenvalue	n	Eigenvalue	n	Eigenvalue
Quantitative	4,032	13.43	141	15.07	1,529	13.50	5,702	13.46
		1.18		1.45		1.41		1.21
		1.01		0.91		0.93		1.01
Technical	11,154	14.08	475	17.02	3,836	14.10	15,465	14.18
		1.13		0.82		1.04		1.06
		0.92		0.77		0.92		0.94
Conceptual	13,285	14.02	674	15.18	5,805	13.81	19,764	14.06
		1.04		0.96		1.17		1.00
		0.90		0.83		0.91		0.95
Unclassified	1,990	15.38	168	13.27	919	14.52	3,077	15.04
		0.97		1.41		1.19		0.98
		0.78		1.21		0.95		0.88
Totals	30,461	14.03	1,458	16.21	12,089	13.83	44,008	14.06
		1.06		0.81		1.16		1.01
		0.92		0.74		0.93		0.97

Table 6: Ranges of Absolute Values of Factor Loadings on Factor 1 (23 survey items)

	Undergraduates	Full-Time Day MBAs	Part-Time Evening MBAs	Totals
Quantitative	0.82 - 0.64	0.87 - 0.71	0.82 - 0.65	0.82 - 0.65
Technical	0.84 - 0.66	0.89 - 0.74	0.84 - 0.68	0.83 - 0.67
Conceptual	0.84 - 0.68	0.88 - 0.69	0.83 - 0.64	0.84 - 0.67
Unclassified	0.85 - 0.72	0.81 - 0.64	0.86 - 0.63	0.85 - 0.70
Totals	0.83 - 0.67	0.87 - 0.73	0.83 - 0.67	0.83 - 0.67

CONCLUSIONS

A number of things have changed with regard to the academic environment since the original 1979 factor analysis was performed on the course evaluation survey. College faculty across the country are more likely to use new and innovative approaches to teaching as a way of improving the educational outcomes of their students. In addition to the traditional lecture method, faculty use collaborative learning techniques, teamwork, simulations, multi-media presentations, community based service learning experiences and online teaching methods in the delivery of their courses. This heterogeneity of pedagogical approaches creates a richer academic environment, but might also lead to more a complex evaluation task for the student. As noted by previous researchers (d'Appolonia & Abrami, 1997; Trebinski, 1985), people often resort to decision strategies that simplify the task and reduce the amount of cognitive effort required to make the evaluation.

Another change that has occurred in the academic environment is the growing "consumer orientation" that students and institutions have adopted since the early 1980's. In an attempt to create a more attractive "product" and increase enrollments, colleges have adopted marketing and promotional practices that traditionally were only practiced in the commercial sector. Historically, the college experience was viewed by students as a developmental experience or a set of challenges one met on the path to growth and success. Nowadays, students are more likely to view the college or university as a service provider, and they evaluate the quality of that service much like they would a consumer product. However, because college education is a complex, multi-dimensional product (not unlike medical, financial, or legal services), the evaluation task is difficult and would likely lead to the use of evaluation and decision strategies designed to simplify the task.

While we provide little evidence for either of these two explanations, the current project provides considerable empirical support for the unidimensional nature of college course evaluation instruments consistent with the solutions identified by other workers in the field.

ACKNOWLEDGEMENT

The authors express special thanks to our most capable and conscientious research assistant Anongnart Thepsilvisuthi. Her dedication, intelligence, and wonderful personality all contributed positively to the completion of this project.

REFERENCES

Abrami, P. C., & S. d'Apollonia. (1991). Multidimensional students' evaluations of teaching effectiveness - Generalizability of "N = 1" research: Comment on Marsh (1991). Journal of Educational Psychology, 83, 411-415.

D'Apollonia, S., & P. C. Abrami. (1997). Navigating student ratings of instruction. American Psychologist. 52, 1198-1208.

Gent, M. J. (1981, November). An assessment of distortion in student evaluations of faculty teaching. in Proceedings of the American Institute for Decision Sciences National Conference, Boston.

Marsh, H. W., & D. Hocevar. (1984). The factorial invariance of student evaluations of college teaching. American Educational Research Journal. 21, 341-346.

Trebinski, J. (1985). Action-oriented representations of implicit personality theories. Journal of Personality and Social Psychology, 48, 1387-1397.

THE IMPACT OF ZERO TOLERANCE AND RACIAL PROFILING AS IT RELATES TO UNITED STATES PUBLIC EDUCATION OF AFRICAN AMERICAN STUDENTS IN ELEMENTARY AND SECONDARY SCHOOLS

"They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."
Benjamin Franklin

Carrie K. Harris, University of Louisiana at Lafayette
carriecap@yahoo.com

ABSTRACT

In 1994, the United States public school system was introduced to the Gun Free Schools Act, which prohibited firearms on school property. However eleven years later, many states and school districts have transformed the initial Act invoking polices of fear and discrimination in the forms of zero tolerance and racial profiling. These two factors alone account for higher dropout and discipline rates, non-advancement into higher placement courses, and low admissions into college. These factors place African American students at a severe disadvantage compared to white students.

Zero tolerance and racial profiling have affected African American students greatly: many are suspended or expelled in numbers significantly disproportionate to those of their white peers; many are more likely to "drop out or be pushed out , as a result of being placed in special education classes or GED programs. Therefore, many of these students have less access to advanced classes or programs for gifted students, and they are less likely to enter college after high school graduation. Broad policies of zero tolerance have caused numerous problems and a higher racially biased negative impact on elementary and secondary education. Another result is a racial composition of the teaching organization that rarely matches the student body.

INTRODUCTION

The Gun Free Schools Act of 1994 has been in effect for almost eleven years. During these eleven years it has been used as an excuse for an impropriate number of searches and suspicions regarding minority students based on physical characteristics. This results in a higher public school drop out rate, higher placement in special education, higher crime and prison rate, and a lower number of college attendances among African Americans. Although, the benefits of the Gun Act do contribute to the safety of all students, many African American students become the target of this law through racial profiling under the gauze of zero tolerance.

In spite of zero tolerance, there are effective alternatives to the African American students' plight, such as building student-teacher relationships, and teacher social training in classroom management and cultural competence. Unfortunatly, most states and school districts do not require anti-racist or multicultural education training for teachers and administrators. Such training would greatly improve the African American student's educational opportunities in the United States public education system. However, as this country stands racially divided, what seems more like the right thing to do is less likely to happen.

BODY

According to the Rutherford Institute, “by refusing to consider each individual's personal history and the intentions that inspired their actions, zero tolerance policies deny the unique worth and dignity of every person”. Zero tolerance by definition is a strict approach to rule enforcement that can be used as the basis of formal laws in a country or region, or in a smaller environment, such as a public school or the workplace. Therefore, as the name suggests, zero tolerance policies allow for absolutely no levels of tolerance or compromise for violators of the law in question. Punishment under such policies is unwaveringly severe. While it is traditionally the responsibility of administrators to consider each violation of policy and act accordingly, zero tolerance policies removes this responsibility and the accountability that goes along with it. However, there is some accountability in correlation between the severity of punishment among races; resulting in African American students receiving harsher discipline for less serious behavior.

The question of racial inequality in school discipline cannot be divided from the circumstances under which so many African American students attend school. These include overcrowded classrooms, a huge number of inadequate skilled teachers and poorly trained counseling staff, coupled with, an unchallenging curricula. “All of these factors contribute to the school setting”, describes Pedro Nigeria, professor at the Harvard Graduate School of Education, “as large, impersonal and foreboding, a place where bells and security guards attempt to govern the movements of students, and where students, more often than not, have lost sight of the fact that education and personal growth are ostensibly the reasons why they have been required to go on a daily basis to this anonymous institution”(Losen & Orfield, 2002). It is in such environments, marked by heightened distrust between students, teachers, and administrators that zero tolerance thrives and racially profiling remains intact.

In March 2001, the American Bar Association released a statement opposing zero tolerance, calling it a "one size fits all solution to all the problems that schools confronts. It has redefined students as criminals, with unfortunate consequences”. Building Blocks for Youth reports that, “in the 1970s, the number of youth suspensions has nearly doubled from 3.7% of students in 1974 (1.7 million students suspended) to 6.8% of students in 1998 (3.2 million students suspended) (African-American students are suspended at roughly 2.3 times the rate of White students nationally. Children of color are subjected to far more suspensions and expulsions than their White counterparts. According to the Department of Education, African-American children made up only 17% of public enrollment nationwide in 1998-99, but 32% of suspensions. White students made up 63% of enrollment and represented only 50% of suspensions and 50% of expulsions. In Tennessee during the 2000 school year, the rate of suspension for African-Americans was double that of White students. In the 1999-2000 school years in Connecticut, nearly 52% of the suspensions of kindergartners went to African-Americans, 35.2% to Latinos and 12.1% to Whites” (Zero Tolerance, 2003).

In the American Bar Association Zero Tolerance Report, it opposes zero tolerance policies as unfair and unjust to children. The ABA cites that zero tolerance policies treats children like adults in taking a mandatory minimum sentences approach to punishing and deterring children from delinquency.

According to the Color of Discipline Journal, testing alternative hypotheses for African-American overrepresentation in office referral, suspension, and expulsion. This study found systematic bias resulting in minority disproportional in school discipline. While there has been ongoing and extensive research documenting racial disproportionality in school discipline, this study examined the factors contributing to that discrepancy. The results of the study showed that racial and gender disparities were evident, even when controlling for socioeconomic status, and that African-American students appear to be referred to the office for less serious and more subjective reasons.

Although the numbers of suspension for African Americans is astounding, the result is even more horrific. Judith Brown's study finds, "zero tolerance policies put thousands of children of color out of the school system and into the juvenile justice system. The findings, based on data from school systems across the country, show the astounding number of student arrests for petty offenses; the negative effects of turning schools into prison-like secure environments; the disproportionate impact on children of color and children with special needs" (Brown 2003).

Many African American students are thrusted in special education programs as a result of racial profiling and zero tolerance. Gary Orfield, co-director of Harvard university's Civil Rights Project remarked, "The disproportionate placement of African American males into special education classes has created a "ghetto within a ghetto" which makes it less likely that they will receive a high school diploma and become employed, and more likely end up in the criminal justice system. This is segregation within segregation" (McNally, 2003). In the 1970's, national surveys by the Office for Civil Rights of the US Department of Education found that African American children were only 16 percent of total school enrollment, but were 38 percent of the students in classes for children who were then identified as mentally retarded. More than 20 years later, African-American children constitute 17 percent of total student enrollment and 33 percent of those now labeled mentally retarded or cognitively disabled- with two newly defined categories of educational disabilities –emotional and behavioral disturbance and specific learning disabilities- have expanded within special education (McNally, 2003). Orfield further added, "the real problems are things that white teachers who don't understand how to deal with young black boys who are acting out, secondly there are no social services available in schools for teachers to refer kids to. So teachers are seeing special education as the only resource that's available. It's the only way target kids who have problems they can't deal with out their classrooms"(McNally, 2003).

However, the truth of the matter is quite simple, many of the method for identifying students with disabilities lack validity, resulting in thousands being misdiagnosed every year, unfortunately many are African Americans. To much emphasis is based on the IQ tests that are culturally biased and are not associated with the cultural context in which a child is raised. Rosa Smith points out, "that nationally 6.6% of all children are placed in gifted and talented programs, but only 3% of black children receive such placement. Nationally approximately 12% of all children – nearly two million girls and four million boys – are classified as Special Education students and is three times as high for male students than female and black males are referred at more than five times the rate for white female students. As a result in parts of the country up to 30% of African –American boys of school age are to be found in special education programs"(Smith 2003).

More than 2.2 million children of color are receiving *special education* services in schools across the United States (U.S. Department of Education, 2000). According to the National Research Council, more than 14% of African American students are in special education, compared with 13% of American Indian students, 12% of White students, 11% of Hispanic students, and 5% of Asian American students (Paolino, 2003). African American students are almost three times as likely as White students to be labeled mentally retarded, two times as likely to be labeled emotionally disturbed, and 1.3 times as likely to be labeled as having a learning disability (Council for Exceptional Children, 2002).). Even with socioeconomic factors considered, race and ethnicity remain significant factors in special education placement (Losen & Orfield, 2002). According to Neal, McCray, & Webb-Johnson, and Bridgest (2003), African Americans, especially those who engage in certain behaviors that represent artifacts of their culture such as language (ebonics), movement patterns, and a certain "ethnic" appearance, are over-referred for special education placement. Among high school students with disabilities, 75% of African American students, as compared to 47% of their White counterparts, are not employed 2 years after school. More than half (54%) of African American young adults are not employed 5 years after completing their schooling, compared to 39% of White young adults (Losen & Orfield, 2002).

In addition to overrepresentation in special education and an increase in drop out rates, African American students identified as having emotional/behavioral disorders are more likely to be suspended, expelled, or removed from local educational settings. Many of these students tend to drop out of school because of placement in special education programs and disciplinary actions taken as a result of zero tolerance policies. A new study shows that the nation's high school drop out rate may be as high as 30%, almost three times higher than government estimates.

Consequently, many African American students do not see themselves as teaching material. Many teachers do not share the same cultural background, many African American students are made to endure negative comments, and are judge by their economic backgrounds. However, it is this education system that unjustly chastises and fails so many African American students each year through zero tolerance and racial profiling. Ensuring student safety should and will continue to be a high priority, yet it should not come at the cost of a decent education for African American student.

REFERENCES

Council for Exceptional Children (2002). Addressing over-representation of African American students in special education: The pre-referral intervention process--An administrator's guide. Washington, DC: National Alliance of Black Schools Educators

Brown, Judith. (2003)Derailed: The Schoolhouse to Jailhouse Track. The Advancement Project, May 2003. Retrieved from: http://www.advancementproject.org

Facing the Consequences: An Examination of Racial Discrimination in U.S. Public Schools. Applied Research Center, March 2000. Retrieved from: http://www.arc.org

Holland, Roland. (2003). High School Crisis: 3 in 10 Drop Out. Heartland Institute, Retrieved September 7, 2005 from: http:\\www.heartland.org\ Robert Holland.htm

Losen, D. J., & Orfield, G. (2002). Racial inequity in special education. Cambridge, MA: Harvard Education Press.

McNally, Joel. (2003). Black Over-representation in Special Education Not Confined to Segregation States. Rethinking Schools Online, Vol. 17, 3. Retrieved September 7, 2005 from: http:\\www.rethinkingschools.org

McNally, Joel. (2003). A Ghetto Within a Ghetto. Rethinking Schools Online, Vol. 17, 3. Retrieved September 7, 2005 from:http:\\www.rethinkingschools.org

Neal, L. I., McCray, A. D., Webb-Johnson, G., & Bridgest, S. T. (2003). The effects of African American movement styles on teachers' perceptions and reactions. Journal of Special Education, 37, 49-56.

Opportunities Suspended: The Devastating Consequences of Zero Tolerance and School Discipline. Advancement Project and The Civil Rights Project, June 2000. Retrieved from: http://www.law.harvard.edu

Paolino, A. (2003, October). Addressing disproportionality of minority students in special education programs. State Notes, Education Commission of the States. Retrieved August 15, 2005, from http://www.ecs.org/html/Document.asp?chouseid=4890

Peterz, Suzette Kimberly. (1999, May). The Overrepresentation of Black Students in Special Education Classrooms. Motion Magazine

Smith, Rosa. (2003). Race, Poverty, & Special Education: Apprenticeships for Prison Work.Poverty and Race, Nov/Dec. 2003. Retrieved September 7, 2005 from http:\\PRRAC\education.htm

U.S. Department of Education. (2000). Education statistics quarterly. Retrieved August 15, 2005, from http://www.ed.gov/pubs/pubdb.html

Zero Tolerance. (2003). History of zero tolerance and it's impact. Building Blocks for Youth, Retrieved August 4, 2005, from http://www.buildingblocksforyouth.org/issues/zerotolerance/facts.html

CURRICULA ASSESSMENT USING THE COURSE DIAGNOSTIC SURVEY: A PROPOSAL

William T. Jackson, Dalton State College
wjackson@daltonstate.edu
Mary Jo Jackson, Dalton State College
mjackson@daltonstate.edu
Corbett F. Gaulden, Jr., University of Texas of the Permian Basin
gaulden_c@utpb.edu

ABSTRACT

The purpose of this paper was to develop a model of an alternative approach to assessing courses and ultimately curricula. Borrowing from Job Characteristics Theory, a modified survey, the Course Diagnostics Survey (CDS) was developed. Using this instrument, a model is suggested that measures the attitudes and resulting outcomes at both the course and overall program level. This model suggests a roadmap as to course or program components that directly impact desired outcomes. Hypotheses are suggested to study the potential of the CDS as an appropriate tool for assessment.

FINANCIAL REPORTING KNOWLEDGE OF ACCOUNTING MAJORS AND THEIR ABILITY TO DETECT FINANCIAL STATEMENT ERRORS AND OMISSIONS

Marianne L. James, California State University, Los Angeles
mjames2@exchange.calstatela.edu

ABSTRACT

Financial statement frauds that have impaired the integrity of financial reporting and led to the creation of the Sarbanes-Oxley Act of 2002 have reemphasized the importance of financial reporting knowledge. Accounting majors must not only know the multitude of accounting rules, but also the overall reporting requirements. Yet, students frequently lack some knowledge in this area.

The purpose of this study was to investigate accounting majors' financial reporting knowledge and to develop recommendations that will help accounting educators address weaknesses. A multi-course case project consisting of financial statements and notes containing intentional errors and omissions was utilized in Intermediate Accounting courses.

The study found that students' identification and correction of errors and omissions varied depending on the specific reporting issue. Overall, a higher percentage of students correctly identified errors and omissions on the face of the financial statements than in the notes. The results from this study suggest that additional instruction is needed, particularly with respect to overall reporting requirements and the relevance of financial statement note disclosures.

INTRODUCTION

The accounting profession has experienced significant changes during the past few years. Highly publicized accounting frauds involving large companies such as WorldCom and Enron have enhanced the scrutiny of the profession and have le to the creation of the Sarbanes-Oxley Act of 2002 (SOX). These recent financial reporting scandals have enhanced cognizance of a long recognized need for high quality and truthful financial reporting.

Accounting professionals must be quite knowledgeable about financial reporting. Accounting majors should acquire this knowledge while completing their accounting curriculum. However, frequently accounting majors experience difficulties preparing financial statements and notes that are relevant, reliable, and in compliance with Generally Acceptable Accounting Principles (GAAP). An understanding of the strengths and weaknesses of students' financial reporting knowledge is needed for the effective and efficient utilization of limited class time.

Thus, the purpose of this study was (1) to identify accounting majors' specific strengths and weaknesses regarding financial reporting and (2) to develop recommendations that will help accounting educators address these weaknesses. A multi-course financial reporting project containing errors and omissions was utilized for analysis of students' financial reporting knowledge.

BACKGROUND LITERATURE

The SOX, which was signed into law on July 30, 2002 was enacted to address some of the accounting and corporate problems that came to light as a result of significant accounting fraud cases. The stated purpose of the SOX is "To protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws, and for other purposes."

(U.S. Congress, H.R. 3763, 2002). Many of the provisions of the SOX affect financial accounting professionals. For example, consistent with Section 302, the CFO (and CEO) of SEC reporting companies must certify the accuracy of financial reports.

High quality financial statements and truthful and thus useful financial reporting can be achieved only if financial statements are both relevant and reliable. While SOX specifically emphasizes the objective of improving financial reporting reliability, it is not a new objective, but one that provides the foundation for financial accounting and reporting and expressly has been stipulated a quarter of a century ago in the Financial Accounting Standards Board's (FASB) conceptual framework (FASB, 1980). Reliability is defined as "The quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent." (FASB, 1980, Glossary).

The basic concepts and principles underlying financial accounting and reporting and the most important specific accounting rules typically are taught in intermediate accounting courses. A sound conceptual understanding of the significance and applicability of these basic concepts and principles tends to help students understand the many detailed rules dealing with specific accounting issues. In addition, accounting standards setting and thus financial accounting and reporting may change in the future and become more principles-based if FASB's "Principles-Based Approach to U.S. Standard Setting" (FASB, 2002) is adopted. Consistent with this project, FASB has added a joint IASB-FASB project to its agenda, to develop a common conceptual framework (FASB, 2005).

RESEARCH PURPOSE AND METHODOLOGY

Educators must help students prepare for the challenging accounting profession. A fundamental and comprehensive understanding of basic accounting concepts and principles, overall reporting rules, as well as detailed accounting rules is essential to enable them to participate in preparing or analyzing highly reliable and relevant financial reports. To help educators utilize the scarce time available in intermediate accounting courses, more must be known about the issues and concepts that students are very knowledgeable about and those that require additional instruction. The results of this study will help identify students' strengths and weakness in financial reporting.

The researcher developed a multi-course financial reporting project that consists of financial statements and notes of realistic content and length for a consolidated entity. These financial statements and notes contained a total of 28 intentional errors and omissions relating to Intermediate Accounting I and 32 relating to Intermediate Accounting II. Ninety-two students enrolled in Intermediate Accounting I during the Winter and Summer 2002 quarters and 78 enrolled in Intermediate Accounting II during the Fall and Winter 2002 quarters worked on the project for eight weeks while the related subject matter was covered in class. The students were required to assess the overall correctness, completeness, and articulation of (1) the financial statements and notes as a whole and (2) the statements and notes related to specific issues and topics covered in the particular course. Students were asked to address specific accounting issues covered in only their particular course.

A three-step approach was necessary to meet the project objective; these were: (1) a review of the financial statements and notes as they are presented in the project; (2) a review of pertinent financial accounting and reporting requirements consistent with GAAP; and (3) an assessment of whether the requirements were met, and if they were not met, suggestions for necessary changes and supplementation that had to be made. During the ninth week of the quarter, students submitted a written report describing the errors and omission that they had identified and suggesting changes and additions that would correct these errors and omissions consistent with GAAP. These student project reports were analyzed and provided the basis for this study.

RESULTS

Intermediate Accounting I

Students enrolled in Intermediate Accounting I could identify a total of 28 errors and omissions. The specific topics covered in Intermediate Accounting I fall under the following broad topics and had the following errors and omissions associated with them: overall financial statement completeness and integrity (3), the balance sheet (6), the income and retained earnings statements (13), the accounts receivable/revenue cycle (4), and inventory (2).

The mean percent of correct answers to the 28 items varied considerably between financial reporting categories and items. The students were asked to assess the overall completeness and integrity of the financial statements. The applicable accounting concepts were completeness, intra-company comparability, and reliability. The set of financial statements, which consisted of two comparative balance sheets, two cash flow statements, and one statement of retained earnings was incomplete. In addition, several totals and subtotals were incorrect. Only nine9% of the students identified the omission of one comparative year of the statement of cash flows and two years of the statement of retained earnings. Fifty-six percent of the students correctly identified the mathematical errors.

On the balance sheet, five items were misclassified within major categories and within time periods (current, non-current) and one subcategory was omitted. The mean percent of correct identification of errors and omissions varied from 21 to 58 percent with the highest percentage associated with the correct classification of investment securities and the lowest associated with the classification of liabilities. Approximately half of the students noticed that the subcategory "contributed capital" was needed.

On the income statement, net income did not agree with the amount shown on the statement of retained earnings, violating the concept of financial statement articulation. Furthermore, five errors and omissions related to the accounting for and disclosure of discontinued operations, violating concepts of full disclosure, relevance, articulation between statements and notes, accuracy and usefulness; two items were related to the presentation of earnings per share, violating the concepts of full disclosure and relevance; the cumulative change in accounting principle was categorized incorrectly, impairing financial statement usefulness, and one subcategory had been omitted, impairing relevance. Furthermore, two items related to errors in the adoption and disclosure of Statements of Financial Accounting Standards (SFAS) 132 and 130, impairing the concepts of reliability, relevance, materiality, and full disclosure.

Mean correct responses varied between 1 and 60 percent. The lowest percentage related to the proper adoption year for SFAS 130 (1%), the omitted disclosure of a prior year discontinued operations (5%), the note and statement articulation (3%), and the income statement and retained earnings articulation (10%). The highest percentage was associated with the proper financial statement categorization for the discontinued operations (60%) and the omission of an income statement subcategory (49%).

Two errors in the presentation and disclosure of accounts receivables and two in accounting for and disclosure of warranty expenses impaired relevance, full disclosure, materiality, and relevance. Correct responses ranged from 7 to 18 percent, with the lowest percentage associated with the disclosure of the allowance method and the highest associated with the presentation of net accounts receivables. Fifty-one percent of the students correctly identified the misclassified gain on the inventory loss and 10% identified the insufficient disclosures regarding the inventory costing methods.

Intermediate Accounting II

The specific topics covered in Intermediate Accounting II and addressed in the project fall under the following broad topics and had the following errors and omissions associated with them. These were: overall financial statement completeness and integrity (3), the statement of cash flows (7), accounting for investments (9), accounting for bonds (3), stockholders' equity (6), and accounting for property, plant, and equipment (4). The mean percent of correct answers to the 32 items varied considerably between financial reporting categories and items.

Students were asked to assess the overall completeness and integrity of the financial statements. The applicable accounting concepts were completeness, intra-company comparability, reliability, and accuracy. Sixty-nine percent of the students identified the mathematical errors, 51% identified the omitted comparative cash flow statement, and 30% the comparative retained earnings statement for two prior years.

Correct responses to errors and omission on the statement of cash flows ranged from 71 to 30 percent with the highest percentage associated with the identification of an incorrect wages payable amount, and the lowest with the omitted reconciliation of goodwill to cash from operations. Investment securities held to maturity were misclassified, impairing relevance. Fifty-one percent of the students correctly identified this error. Two errors related to the market valuation required by SFAS 115 impaired relevance and reliability. Fifty-three percent of the students recognized that the amount of the market value was incorrectly stated in the notes; however, only 14% of the students realized that the market adjustment was misstated.

Correct responses to errors and omissions regarding investments ranged from 9 to 57, with the highest percentage associated with the classification of goodwill on the balance sheet and the lowest with the error in the description of the nature of goodwill.

Three errors and omissions regarding accounting for bonds impaired the relevance, representational faithfulness, full disclosure, and financial statement and note articulation. Correct identification ranged from 26 to 34 percent, with the highest percentage associated with omitted information on the new bond issue.

Six errors and omissions pertained to accounting for and reporting of stockholders' equity, impairing relevance, representational faithfulness, financial statement and note articulation, full disclosure, and reliability. The mean percentage of students who correctly identified these errors and omissions ranged from 7% (the omitted proforma schedule regarding stock options) to 59% (inconsistent balance sheet/note information on common shares issued).

Four errors and omissions pertaining to accounting for property, plant, and equipment violated the concepts of full disclosure, relevance, reliability, classification, and representational faithfulness. The highest percentage of correct responses (30%) was associated with omitted descriptions of the type of assets and the lowest with the descriptions of the accounting treatment for gains (3%).

CONCLUSIONS AND RECOMMENDATIONS

Students' ability to recognize and correct errors and omissions varied considerably depending on the particular accounting issue and concept. Students' knowledge tended to be stronger with respect to mathematical errors, financial statement classifications, and errors on the face of the statement, and weaker with respect to errors and especially omissions in financial statement notes. The percentage of students who noticed that comparative financial statement years were omitted was disappointingly low, although a significantly higher percentage of students enrolled in Intermediate Accounting II identified these omissions.

Additional emphasis in intermediate accounting classes is needed to address these weaknesses. Exposure to comparative financial statements and discussions of the importance of

financial statement note disclosures should be enhanced. Furthermore, the type and detail of relevant and usefulness accounting information that users need for informed decision making should be discussed in class. This could be facilitated by utilizing short exercises or cases that require that students assume the role of investors or creditors and derive the type of information that they would perceive as relevant. Furthermore, whenever possible, a new specific accounting topic should be related back to fundamental accounting concepts (e.g., relevance, reliability, matching, full disclosure, articulation).

REFERENCES

Financial Accounting Standards Board. (1980). Statement of Financial Accounting Concepts No. 2. Qualitative Characteristics of Accounting Information. Stamford, Conn.

Financial Accounting Standards Board. (2002, October 21). Proposal Principles-Based Approach to U.S. Standard Setting. Stamford, Conn.

Financial Accounting Standards Board. (2005). Project Updates. Principles-based Approach to U.S. Standard Setting. Retrieved September 4, 2005 from http://www.fasb.org/project/principles-based_approach_project.shtml.

U.S. Congress. (2002). One Hundred Seventh Congress of the United States of America at the second Session. Sarbanes-Oxley Act of 2002. H.R. 3763.

ACKNOWLEDGING THE STUDENT AS THE CUSTOMER: INVITING STUDENT INPUT INTO COURSE WEIGHTS

Hadley Leavell, Sam Houston State University
leavell@shsu.edu

ABSTRACT

Businesses recognize the necessity of listening to the customer. Small businesses do not have the resources to provide the on-the-job re-education needed to advance this employee understanding. Although higher education providers allow student evaluation of faculty, they have not made the transition to acknowledging the student as the customer in course weighting. In recognition of the student as customer, and who is also frequently a small business employee, two classes of Sam Houston State University graduate students were requested to evaluate theoretical course weights with respect to course grades and career needs. The analyses of these results leads to the conclusion that courses need to be restructured to more adequately address small business owners' and employees' needs.

CAN ENTREPRENEURSHIP AND SMALL BUSINESS EDUCATION AFFECT RATES OF RECIDIVISM AND THE ECONOMIC PROSPERITY OF RELEASED INMATES?

Frank S. Lockwood, Western Carolina University
lockwood@wcu.edu
Russell Teasley, Western Carolina University
teasley, @wcu.edu

ABSTRACT

A major problem facing society today is what to do about the large number of prisons and the growing number of inmates serving sentences. The economic cost to society and to those directly affected by criminal activity is growing. According to the Bureau of Justice (2000) one of every fifteen will be incarcerated. The authors propose a longitudinal study be created that focuses on the effects of prisoners participating in entrepreneurship and small business skills training. It is our opinion the research regarding the effects of education on the rates of recidivism/economic success demonstrates the need for providing training to incarcerated prisoners. Finally, it is our belief that participants receiving the aforementioned training will attain a lower rate of recidivism and higher economic success than those receiving other types of training.

THE ROLE OF SITUATION IN THE LEADERSHIP PROCESS: A REVIEW AND APPLICATION

J. Reagan McLaurin, American University of Sharjah
jmclaurin@aus.edu

ABSTRACT

Though the dynamic concept of leadership has been under review for many years, its complexity has been soaring with the changing demands of the situation influenced by various variables such as leader's characteristics, followers' attributes, behavior, leader-follower relationship, and others.

In simple terms, leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members. The situation in part defines the leadership process; it influences the leader and interacts with the leader's attempts to influence his or her followers. According to Murphy (1941), situations in which people find themselves create needs, and it is the nature of these needs that defines the type of leadership that best serves the group.

Hence, the purpose of this paper is to review the role of situation in the leadership process supported by some of the prominent situational leadership models including the path-goal theory, situational leadership model, and contingency model. Additionally, a critical factor that has a significant influence on the situation is discussed - power as an ability to exercise influence on people and its role in influencing leadership situations.

The final section of this research includes analysis of few real business world situations and its subsequent influence on leaders' behaviors, followers' reactions, and leader effectiveness. Interestingly, it was found that leaders adopted different leadership styles variant upon the needs of the concerned situation which affected their leadership effectiveness.

CONNECTING WITH DISENGAGED STUDENTS USING MOTIVATIONAL TECHNIQUES

Patricia Toney-Mclin, Arkansas State University
mclin@astate.edu
Christy Valentine, Arkansas State University
cvalentine@astate.edu
Larry R. Dale, Arkansas State University
dalex@astate.edu
Henry Torres, Arkansas State University
htorres@astate.edu

ABSTRACT

Students in higher education respond differently to various teaching methods. Learning styles vary among different personality types. The classroom environment is very diverse and multi-cultural, including non-traditional students, international students all reflecting the make-up of today's society. Innovative teaching, creative techniques and strategic planning are integral parts of ensuring the various learning styles are satisfied and students are therefore successful. This paper will examine the success and failure rate of engaging students using varying teaching methods including motivational techniques. Motivation is the force of energy that propels one to seek a goal and/or to satisfy a need; striving, incentive, purpose (Campbell, 1981). Students are more successful if their teachers are well prepared and organized, present the material clearly; stimulate students' interest; engage and motivate students to studying the material through their enthusiasm / expressiveness, have a positive rapport with students; show high expectations of student; encourage them, and generally maintain a positive classroom environment The authors will present strategies to help educators engage their constituents and improve the delivery system of information to students for their learning success. The authors includes a survey "How to motivate students" to help educators better understand how to cater to the needs of the various learning styles and reach students who are often left out of more traditional learning environment.

WHAT ARE THE EFFECTS OF PART-TIME INSTRUCTION IN THE LEGAL ENVIRONMENT OF BUSINESS COURSE?

Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Rob H. Kamery, Nova Southeastern University
robhkamery@yahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Legal Environment of Business course at a comprehensive IIA university. We find that part-time faculty members assign grades 0.40 points higher than those assigned by full-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty member status--i.e., full-time or part-time--is statistically significant at less than a 0.01 level of confidence (p-value = 1.32E-03). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value of 1.05E-15. The model yielded an adjusted R^2 value of 0.368, indicating that 36.8 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

Tthe term "adjunct faculty" once described extraordinary appointees for specialists who possessed expertise not commonly found among the ranks of permanent faculty and who were rewarded commensurately according to their rank (McGee, 2002). However, recent definitions indicate that adjunct faculty members are temporaries who teach less than the full-time load or who have fewer faculty duties than would be required of full-time faculty (Louziotis, 2000). Haeger (1998) finds that the involvement of part-time faculty among institutions is a major issue for consideration, and states that such faculty members are the primary backbone of institutions such as the University of Phoenix, Strayer University, and Colorado Technical University.

LITERATURE REVIEW

Bejar and Blew (1981) define grade inflation as being the "increase in grade point average without a concomitant increase in achievement." This is affirmed by Grove and Wasserman (2004) via the observation that grade inflation is "an upward shift in the grade point average of students over an extended period of time without a corresponding increase in student academic ability." Therefore, the aforementioned academic tools have the potential for increasing numerical grades without truly reflecting the performance manifested and the command of subjects that are commensurate with such higher levels of academic aptitude.

Kamber and Biggs (2004) find that grade inflation was first observed during the 1960s. Long (2003) finds that grade inflation is now manifested as a "national epidemic" and is witnessed in both private and public institutions.

Since the 1960s, grades across the nation have shown a noticeable increase (Wilson, 1999). From 1969 to 1993, grades equivalent to a *C* (or less) decreased from 25 percent to nine percent.

Further, Wilson finds that seven percent of all students received grades equal to or higher than an *A-* in 1969, while the corresponding 1993 proportion was 26 percent. These percentages are confirmed by Vanderslice (2004). Kuh and Hu (1999) find that grades among undergraduates "have never been higher" and confirm the increase in grades since the 1960s. Previous research also observes the early grading trends during the 1960s and the 1970s (Bejar & Blew, 1981).

The grading trends of various notable institutions may be considered from the perspective of grade inflation. King (2005) provides a synopsis of the 1999 and 2000 honors graduates of Brown University (43 percent), Harvard University (82 percent), and Northwestern University (46 percent). Given these reports, grade inflation is of considerable interest among even the prestigious institutions of academia.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Legal Environment of Business course taught at a private comprehensive IIA university. Two part-time and two full-time faculty members were employed to teach the course. Part-time faculty members were classified as adjunct faculty. For the sample of 165 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, *grade* in the Legal Environment of Business course (*A, B, C, D, F*)
2. The independent variable, *status of the faculty member* (part-time or full-time)
3. The independent variable, *status of the student* (day or evening student)
4. The independent variable, *student major*
5. The independent variable, *student gender*
6. The independent variable, *student class standing* (freshman, sophomore, junior, senior)
7. The independent variable, *student age*
8. The independent variable, *student GPA*

The dependent variable, *grade*, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, *grade*, is ordinal data, and since the interval between the grades can be estimated as being ten point intervals (except for the *F* category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of *A*, *B*, *C*, *D*, and *F* is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 1.174 is less than the F-critical value of 1.4928, it is assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming unequal population variances (see Table 2).

Table 1
F-Test: Two-Sample for Variances

	Full-time	Part-time
Mean	2.65	3.05
Variance	1.0161	0.90821
Observations	108	57

df	107	56
F	1.174	
P(F <= f) one-tail	0.280	
F-Critical one-tail	1.4928	

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Legal Environment of Business course. The hypothesis tested was that there was no difference in the average grades awarded by part-time versus full-time faculty members (in the population). The two-tail p-value of 0.013 represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2
T-Test: Two-Sample Assuming equal Variances

	Full-time	Part-time
Mean	2.65	3.05
Variance	1.0161	0.90821
Observations	108	57
Hypothesized Mean Difference	-0.40	
df	163	
t-Stat	-2.498	
t-Critical one-tail	1.65	
P(T <= t) two-tail	0.013	
t-Critical two-tail	1.97	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a part-time or full-time basis, and academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether the course was taught by a part-time or full-time faculty member, and measure their relationships with a multiple linear regression model. In this way, we can analyze the relationship between student grades and the employment status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

The multiple regression approach will be utilized here (Kamery, Williams & Kugele, 2004). Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3
Regression Results

Multiple R	0.622						
R^2	0.387						
Adjusted R^2	0.368						
Standard Error	0.798						
Observations	164						
ANOVA							
	SS	df	MS	F	Sig.		
Regression	63.569	5	12.714	19.982	2.07E-15		
Residual	100.529	158	0.636				
Total	164.098	163					
Correlations							
	Zero-Coefficients	Std. Error	t Stat	Sig.	order	Partial	Part
(Constant)	-1.061	0.602	-1.762	0.080			
Day or Evening	0.140	0.136	1.030	0.305	0.024	0.082	0.064
Gender	-0.068	0.132	-0.516	0.606	-0.176	-0.041	-0.032
Class	0.064	0.109	0.587	0.558	0.135	0.047	0.037
Cum. GPA	0.988	0.111	8.927	1.05E-15	0.582	0.579	0.556
Faculty status	0.438	0.134	3.270	1.32E-03	0.184	0.252	0.204

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The adjusted coefficient of multiple determination shown in Table 3 is equal to 0.368, indicating that 36.8 percent of the change in the dependent variable, *grade*, is explained by the set of independent variables (which are student characteristics, except for the faculty member status variable). The F-statistic's high value of 19.982 corroborates the existence of a significant relationship between student grades and the set of independent variables. Independent variables that would be significant at a 0.01 level of confidence include the following:

1. Faculty member status (part-time or full-time) t-Stat value = 3.270
2. Grade point average (GPA) t-Stat value = 8.927

None of the other independent variables showed a significant relationship to the course grade.

During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students in upper division courses that have a legal/ethical component different for those students taught by part-time versus full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the Legal Environment of Business course and the employment status of the faculty member, i.e., whether part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Legal Environment of Business course. Next in importance was the employment status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members may teach predominantly at times and places where non-traditional students are enrolled. Our data was collected at a single university.

REFERENCES

Bejar, I. & E. Blew (1981). Grade inflation and the validity of the scholastic aptitude test. *College Board Report, 182,* 143-156.

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58-65.

Grove, W. & T. Wasserman (2004). The life-cycle pattern of collegiate gpa: Longitudinal cohort analysis and grade inflation. *Journal of Economic Education* (Spring), 162-174.

Haeger, J. (1998). Part-time faculty, quality programs, and economic realities. *New Directions for Higher Education, 104*(Winter), 81-88.

Kamber, R. & M. Biggs (2004). Grade inflation: Metaphor and reality. *Journal of Education, 184*(1), 31-37.

Kamery, R.H., R.H. Williams & L.P. Kugele (2004). The relationship between part-time instructors and final grades in the principles of business statistics course. *Academy of Educational Leadership Journal, 8*(1), 1-9.

King, M. (2005). Voluntary conscription: Enlisting the children of Lake Woebegone in the battle against grade inflation. *College Literature* (Winter), 127-145.

Kuh, G. & S. Hu (1999). Unraveling the complexity of the increase in college grades from the mid-1980s to the mid-1990s. *Educational Evaluation and Policy Analysis, 21*(3), 297-320.

Long, R. (2003). Only an A-? Combating grade inflation. *Tactics*, (8), 18.

Louziotis, D. (2000). The role of adjuncts: Bridging the dark side and the ivory tower. *Review of Business* (Winter), 47-52.

McGee, M. (2002). Hooked on higher education and other tales from adjunct faculty organizing. *Social Text*, *20*(1), 61-80.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education* (Fall/Winter), 66-73.

Vanderslice, R. (2004). When I was young, an A was an A: Grade inflation in higher education. *Phi Kappa Phi Forum, 84*(4), 24-25.

Wilson, B. (1999). The phenomenon of grade inflation in higher education. *National Forum, 9* (Fall), 4.

WHAT ARE THE EFFECTS OF PART-TIME INSTRUCTION ON FINAL GRADES IN THE BUSINESS LAW COURSE?

Sarah T. Pitts, Christian Brothers University
spitts@cbu.edu
D. Adrian Doss, University of Phoenix
adrian_doss@msubulldogs.org
Rob H. Kamery, Nova Southeastern University
robhkamery@yahoo.com

ABSTRACT

This paper studies the effect that part-time instruction has on students' final grades in the Business Law course at a comprehensive IIA university. We find that part-time faculty members assign grades 0.16 points higher than those assigned by full-time faculty members. Using a multiple linear regression, in which the response variable is students' grades, the explanatory variable faculty status--i.e., full-time or part-time--is statistically significant at less than a 0.01 level of confidence (p-value = 1.99E-02). Additionally, the explanatory variable GPA is also significant at an alpha level less than 0.01 with a p-value of 5.87E-87. The model yielded an adjusted R^2 value of 0.287, indicating that 28.7 percent of students' grades are accounted for by the explanatory variables included in the model.

INTRODUCTION

Grades are a form of recognizing the compared successes and failures of students as they progress through various levels of study. Core-major grade point average (GPA), semester GPA, cumulative GPA, and class ranking are tools through which degrees, scholarships, and assistantships are earned and awarded, and they serve as measures that aid employment screening, academic retention, or graduate school admissions. Kamber and Biggs (2004) suggest that grades are a result of performance and that they contribute to scholarship attainment or retention or provide information for the professional world. However, within academia, there is little uniformity among grading paradigms and methodologies.

The Teaching Professor suggests that inflated grades are related to the amount of student pressure against faculty members as a method of influencing grading processes and altering any outcomes (Study reveals, 2004). Vanderslice (2004) suggests reviewing grading processes in order to enhance academic rigor. Coleman (2004) introduces the notion that student retention within the academic environment may be a grading factor. As a method of curbing excessive, high grading outcomes, Vanderslice notes that Indiana University contemplated a moratorium regarding the use of student feedback as a component of personnel decisions. Hoover (2004) notes that Princeton University considered a proposal that confined the quantity of undergraduate *A* grades to a maximum of 35 percent.

LITERATURE REVIEW

Modern definitions and perceptions of part-time faculty suggest that they are those temporaries who teach less than the full-time load or who have fewer faculty duties than would be required of full-time faculty members (Louziotis, 2000). However, adjunct faculty members were

once described as being extraordinary appointees, specialists who had expertise not commonly found among the ranks of permanent faculty and who were rewarded commensurately according to their rank (McGee, 2002). The use of part-time faculty among institutions is a major personnel issue, and such faculty members are the primary backbone of institutions such as the University of Phoenix (Haeger, 1998). Greisler (2002) notes that Davenport University employs part-time faculty within the fields of business, computer science, and health care. Institutions with similar part-time faculty trends include Strayer University, Webster University, and Colorado Technical University.

The use of part-time faculty members has seen a profound increase among institutions of all types and sizes. Haeger (1998) cites Towson University as a primary example of such growth. Haeger finds that the proportion of part-time faculty members in 1986 was 21.04 percent, whereas in 1997, the proportion of part-time faculty members was 42.10 percent. Louziotis (2000) describes two categories of part-time faculty members found among educational institutions. There are practitioners who teach a few classes occasionally, and others are people who integrate multiple part-time assignments as a method of teaching full-time.

Because of the numerous differences among faculty members, the purpose of the current study is to analyze the effect of faculty rank--as it pertains to part-time or full-time status--on student grades in the Business Law course. Can a student taking a Business Law course improve his or her grade by enrolling in a course taught by a part-time faculty member? In addition, we examine several student characteristics in order to determine whether those variables interact with faculty status.

METHODOLOGY AND RESULTS

Data were collected from all sections of the Business Law course taught at a private comprehensive IIA university. Four part-time and two full-time faculty members taught the course. Part-time faculty members were classified as adjunct faculty. For the sample of 1,353 students, the following data, which we believe to include explanatory factors for student grades, were obtained:

1. The dependent variable, *grade* in the Business Law course (*A*, *B*, *C*, *D*, *F*)
2. The independent variable, *status of the faculty member* (part-time or full-time)
3. The independent variable, *status of the student* (day or evening student)
4. The independent variable, *student gender*
5. The independent variable, *student class standing* (freshman, sophomore, junior, senior)
6. The independent variable, *student GPA*
7. The independent variable, *student major*
8. The independent variable, *student age*

The dependent variable, *grade*, which is recorded on the students' record as an alpha character, was numerically represented in the model as: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. Although the dependent variable, *grade*, is ordinal data, since the interval between the grades can be estimated as being ten point intervals (except for the *F* category), the data is considered to closely approximate interval level data. The use of the values 4, 3, 2, 1, and 0 for the letter grades of *A*, *B*, *C*, *D*, and *F* is similar to using the midpoint of a class to estimate descriptive statistics for a frequency distribution. Students who withdrew from the course were deleted from the sample data. Since student withdrawal data was omitted, the results of the study are subjected to survival bias. The lack of control for such bias is recognized as a limitation of the study.

Table 1 examines and compares the sample variances of the grades given by part-time and full-time faculty members. Since the F-test value of 14.724 is greater than the F-critical value of 1.1276, it cannot be assumed that the population variances are equal. Thus a two-sample hypothesis test for the equality of population means would employ the t-test, assuming unequal population variances (see Table 2).

Table 1 F-Test: Two-Sample for Variances		
	Full-time	Part-time
Mean	2.77	2.93
Variance	0.8464	0.7106
Observations	1041	258
df	1040	257
F	14.724	
P(F <= f) one-tail	~0	
F-Critical one-tail	1.1767	

Table 2 analyzes the relationship between the status of the faculty member, i.e., part-time or full-time, and the grade received in the Business Law course. The hypothesis tested was that there was no difference in the average grades awarded by part-time vs. full-time faculty members (in the population). The two-tail p-value of 0.007 represents the probability that both populations, i.e., part-time and full-time faculty members, award grades equally. This contention is rejected at any reasonable level of alpha.

Table 2 T-Test: Two-Sample Assuming Unequal Variances		
	Full-time	Part-time
Mean	2.77	2.93
Variance	0.8464	0.7106
Observations	1041	258
Hypothesized Mean Difference	-0.16	
df	422.623	
t-Stat	-2.729	
t-Critical one-tail	1.65	
P(T <= t) two-tail	0.007	
t-Critical two-tail	1.96	

Several studies have analyzed relationships between student grades and various student characteristics such as age, gender, class standing, attendance on a full-time or part-time basis, and academic major (Chan, Shum & Wright, 1997; Sen, Joyce, Farrell & Toutant, 1997). We decided to include these variables, along with our variable of main concern, i.e., whether the course was taught by a part-time or full-time faculty member, and measure their relationships with a multiple linear regression model. In this way, we can analyze the relationship between student grades and

the employment status of the faculty member (part-time or full-time) while controlling for the various student demographic characteristics mentioned above.

Only the multiple regression approach will be utilized here. Using the coding method of A = 4 (or 95), B = 3 (or 85), etc., is similar to estimating the mean or standard deviation of data that has been summarized into a frequency distribution. Table 3 presents the results of a multiple regression analysis.

Table 3
Regression Results

Multiple R	0.539						
R^2	0.290						
Adjusted R^2	0.287						
Standard Error	0.766						
Observations	1353						
ANOVA							
	SS	df	MS	F	Sig.		
Regression	305.61	5	61.12	104.06	3.59E-92		
Residual	747.75	1273	0.59				
Total	1053.36	1278					
Correlations							
	Zero-Coefficients	Std. Error	t-Stat	Sig.	order	Partial	Part
(Constant)	0.310	0.179	1.727	8.44E-02			
Day or Evening	0.118	0.043	2.741	6.22E-03	0.076	0.077	0.065
Gender	-0.063	0.043	-1.443	1.49E-01	-0.118	-0.040	-0.034
Class	0.035	0.030	1.163	2.45E-01	0.101	0.033	0.027
Cumulative GPA	0.726	0.034	21.389	5.87E-87	0.530	0.514	0.505
Faculty status	0.126	0.054	2.331	1.99E-02	0.069	0.065	0.055

Student major, class standing, day or evening attendance, and student gender were included as indicator variables. None of these indicator variables were significantly related to the grade received. A graphical analysis of the residuals did not indicate serious violations of the model's assumptions. There are no extreme points (outliers). At each grade level, residual variance does not indicate the presence of homoscedasticity; the residuals approximate a normal distribution. The adjusted coefficient of multiple determination shown in Table 3 is equal to 0.287, indicating that 28.7 percent of the change in the dependent variable, *grade*, is explained by the set of independent

variables (which are student characteristics, except for the faculty status variable). The F-statistic's high value of 104.06 corroborates the existence of a significant relationship between student grades and the set of independent variables. Independent variables that would be significant at a 0.01 level of confidence include the following:

1. Grade point average (GPA) t-Stat value = 21.389
2. Faculty status t-Stat value = 2.331
3. Day or Evening Student t-Stat value = 2.741

None of the other independent variables showed a significant relationship to the course grade.

During the analysis, several issues of interest were identified for possible future research. There was insufficient information derived from this study to explore those issues here. Those issues include the following:

1. Do part-time and full-time faculty members employ similar methods of teaching?
2. Do part-time and full-time faculty members use similar methods of testing and grading?
3. Is there coverage by part-time and full-time faculty members that is consistent with the prescribed courses of study?
4. Is the performance of students in upper division courses that have a legal/ethical component different for those students taught by part-time vs. full-time faculty members?

CONCLUSION

The primary objective of this paper was to examine the relationship between student grades in the Business Law course and the status of the faculty member, i.e., part-time or full-time. A multiple regression model, which allowed for the inclusion of many student characteristics, did report a significant relationship between the two factors. We find that a student's cumulative GPA was the strongest predictor of success in the Business Law course. Next in importance was the status of the faculty member, part-time or full-time. It is recognized that our sample may include selection bias since part-time faculty members may teach predominantly at times and places where non-traditional students are enrolled. Our data was collected at a single university; thus, our results may lack universal application.

REFERENCES

Chan, K., C. Shum & D. Wright (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education* (Fall/Winter), 58-65.

Coleman, J.D. (2004). The student as client. *Phi Kappa Phi Forum, 84*(4), 25.

Greisler, D. (2002). Adjunct to what? A non-traditional perspective on teaching the social sciences. *International Journal of Public Administration, 25*(9), 1125-1141.

Haeger, J. (1998). Part-time faculty, quality programs, and economic realities. *New Directions for Higher Education, 104*(Winter), 81-88.

Hoover, E. (2004). Princeton proposes limit on the number of A's. *EBSCO Host Research Databases,* Academic Search Premier. 00095982.

Kamber, R. & M. Biggs (2004). Grade inflation: Metaphor and reality. *Journal of Education, 184*(1), 31-37.

Louziotis, D. (2000). The role of adjuncts: Bridging the dark side and the ivory tower. *Review of Business* (Winter), 47-52.

McGee, M. (2002). Hooked on higher education and other tales from adjunct faculty organizing. *Social Text*, *20*(1), 61-80.

Sen, S., P. Joyce, K. Farrell & J. Toutant (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education* (Fall/Winter), 66-73.

Study reveals (2004). Study reveals faculty attitudes about grade inflation. *The Teaching Professor*, (11), 5-6.

Vanderslice, R. (2004). When I was young, an A was an A: Grade inflation in higher education. *Phi Kappa Phi Forum*, *84*(4), 24-25.

EQUITIES ANALYSIS: A PROFESSIONAL APPLICATION

Robert Ricks, Wasatch Funds, Inc.
Chad Witcher, Zion's Bancorp
Kyle Mattson, Weber State University

ABSTRACT

An exercise to link senior-level investment courses with real world, equities analysis is described. Whereas many students fulfill the academic requirements during their course work in investment analysis, few truly grasp the real world application of the theories and thus fail to fully develop the skills being taught. The result is that students often gain only a basic-level, academic knowledge of securities analysis and their research product is of inferior quality.

Recognizing this, a proposed senior-level investments course syllabus is described in detail. In essence, rather than focusing solely upon studying and discussing the principles of investing, the focus will shift to high-level analysis. Indeed, rather than performing shallow research on companies, the virtue of channeling student efforts into the study and comprehensive analysis of a single company is explored. This analysis will entail: an in-depth study of financial statements, the building of a standardized financial model to project future earnings, participation in calls with Wall Street analysts and industry experts, and on-site visits to meet with senior management. This high-level analysis will then be captured in a value-added research report on a standardized template which will feature internally-generated earnings projections and a student-analyst investment recommendation.

INTRODUCTION

Equities analysis is one of the most prestigious and sought-after career paths for undergraduate finance majors, yet there is little opportunity to get hands-on, industry-level experience and learn the skills that will qualify students to work as analysts on Wall Street following graduation. In fact, there are only a handful of universities across the country that pursue an equities analysis curriculum above the basic, entry-level application.

At Weber State University, a new curriculum has emerged called Industry Level Equities Analysis, and it is being developed through the efforts of interested students and encouraging professors. This curriculum will consist of focused, hands-on company analysis both in terms of quantitative financial analysis as well as a qualitative assessment of the value of the enterprise.

The objectives of this paper are to explain the vision of this curriculum, which we believe will best prepare students to secure employment in the equities analysis industry, enhance the learning experience, and not to mention drive the performance of the school's endowment fund-sponsored equities investment portfolio. Furthermore, a course of study is described including fundamental philosophies and methodologies considered to be of the utmost importance in making students' upper-division finance coursework the most rewarding and value-added experience possible.

HIGH-LEVEL EQUITIES ANALYSIS PROGRAM

Vision

Through the first-hand experience of several students and professors at Weber State University, a divergence has been identified between academic studies in financial analysis at most universities and common industry practices among professional firms. This discrepancy is impeding a smooth transition by finance students into the investment industry. Furthermore, it has been determined that because of the very basic nature of the analysis performed by students under the status quo, the quality of the end-product-the research reports they generate-is sub-par. Finance students are a tremendous resource waiting to be tapped; capable of producing research reports of superior quality that display the investment potential of various companies. Their research product can be of significant value to the students themselves if they choose to invest personally, as well as to the University - as this student equity research will drive the performance of the school's equity investment portfolio of endowment funds. Finally, through this in-depth, complex research process, students will be empowered with the tools they need to compete successfully for the most attractive career opportunities on Wall Street.

Details

High-Level Equities Analysis will be established as an upper-division two-course series available to business seniors that are particularly passionate about stock analysis and investing. Students will be divided into teams of two to three students each. Each team will choose one company that they will cover for the duration of the semester. Students will meet top management, visit company sites, develop financial models, and publish extensive investment research reports on the companies they follow. In addition to conversations with management, student analysts will utilize various publicly available sources of information in creating these reports, including: SEC filings, the internet, trade associations, competitors, suppliers, customers, industry experts, and industry analysts.

The geographic boundary of the stock universe available to students for analysis will be limited primarily to the Wasatch Front area of Northern Utah. If it becomes necessary to broaden this limit, the school will make allowances on a case-by-case basis, but exceptions must be limited to companies in the intermountain west region. The fundamental purpose for this constraint is to focus on the businesses in our surrounding area, and add value to the local economy by better understanding and supporting, through real-money investment, the firms in our area. Avenues for making the students' research reports available to other members of the community are explored below.

By structuring this program as a two-course series, it is hoped that there will exist a fair amount of continuity in the coverage of the companies being followed. This continuity is crucial to maintain consistent superior results in the appraisal of companies. At various points within each semester, all the student-analysts will have the opportunity to present their stock research to members of the school's student-run investment portfolio. Additionally, an Annual Investor Conference will be held in the spring, at which time representatives from local investment firms and the community at large will be invited to hear students present their analyses. In preparation for the Investor Conference, students will develop a Wasatch Front Anthology - a book of one-to-two page briefs on all the companies under coverage.

In addition to the extensive research that students will be performing throughout the semester, the coursework will also include the reading of a select few books by the greatest in stock investors, as well as special presentations and workshops presented by visiting industry

professionals. This will give students a broad education of not only industry-level, hands-on experience, but also of the philosophies, strategies, and theories on financial analysis.

PROGRAM CURRICULUM

Stock Selection

Students will begin the stock selection process with either a quantitative screen or by simply picking a particular company in which they have some degree of interest or exposure. As mentioned previously, the universe of stocks available for selection will be relatively small as it only includes the publicly traded firms, of any size, along the Wasatch Front in Utah. Other sample criteria that may be used in screening could include: historic earnings-per-share growth, stock valuation, and return on assets.

From a qualitative standpoint, students may choose companies that they discover by means of their roles as consumers or informed insiders of a particular company. Often, consumers may have the best perception of the quality of an enterprise since they are constantly confronted with the company's product and make judgments as to their competitive advantages (Lynch, 2000). Also, those who have some connection with a particular business or industry may have an inside edge on which industry or company could be strong, based on their fundamental knowledge of the respective business or industry.

Students will choose 10 companies from their initial screening. They will then pull summary sheets from a free online service such as Yahoo Finance or Morningstar. The intent here is to become acquainted with each firm's business model and compare profitability and strength with its competitors. The next step will be to narrow the playing field down to just one favorite pick.

Preliminary Research

As the first step in the research process, students will order a copy of their chosen company's most recent annual report and forms 10-K and 10-Q, filed with the SEC. Students will carefully read and study these financial statements to become acquainted with how the company makes money. Next, students will identify the firm's key competitors with which they will compare their company to become acquainted with its strength and weaknesses, and also to perhaps get exposure to other companies that may prove to be better investments than the original. Throughout this process, students will generate and record all of their questions and concerns.

Speak with an Analyst

It is expected that the school will subscribe to an online service that allows students access to sell-side stock analyst company reports. Students will review and analyze the key issues in these reports as pertaining to the firm's weaknesses, strengths, opportunities, & threats. In addition, students will get a glimpse at this analyst's earnings estimates and modeling assumptions to drive future modeling by the students. Again, during this process students will continue to generate important questions and concerns. After this, students will have the opportunity to call several industry analysts covering the stock to get added color on the story and recent fundamental changes, as well as ask the questions and express the concerns that have come up thus far in the research process.

The Earnings Model

In our experience we have found that one of the most valuable exercises one can undertake in researching a company is building an earnings model to project the firm's future earnings. This process begins by breaking out the key revenue segments and determining what the key variables or "drivers" of the income statement are. After replicating past financial data and projecting the entire income statement into the future, analysts will work into the model all the assumptions they have made based on the research they have done thus far in order to generate proprietary earnings projections. In this model, the "drivers" are shaded blue, and student analysts are able to manipulate them according to their research in order to arrive at a best-estimate of the firm's bottom line: earnings.

The earnings-per-share projections that student analysts make are truly the product of their research efforts, for it is this single figure that drives future cash flows and stock valuation.

To assist students with the modeling process, accounting and finance professors will help students develop financial forecasts and pro-forma financial statements using a spreadsheet program such as Microsoft Excel.

On-Site Management Visit

A key element in judging the quality of the company is the competence, integrity, and good judgment of the management team (Cunningham, 2001). Any analyst or investor who invests in a stock without visiting management is exposing themselves to added risk. Through meeting personally with management, students will be able to ask critical questions generated during all prior research. Ideally students will also have the opportunity to visit the company's headquarters as well as distribution centers and/or other pertinent facilities associated with the firm's operations.

The key to this step of the process is that the analyst simply meet management and have the opportunity to at least talk to them briefly so as to develop a sufficient degree of trust in them. If student analysts become comfortable with a company's numbers AND its management team, then they should look to recommend the stock for immediate purchase.

"Scuttlebutt"

Next students seek to gain information regarding a company and its management from other sources, some biased and others more objective. Students will speak with suppliers, customers, competitors, industry experts, and others. This provides a good opportunity to gain additional background on the management team and check for any trends or negative experiences in their past as executives (Fisher, 1996).

Another great way to gather "scuttlebutt" on a company is to try their products, visit their store, sample their services, etc. It is this "kicking the tires" exercise that will help add that final amount of color to a student-analyst's research that will make it complete and a value-add resource (Lynch, 2000).

Research Report and Recommendation

Finally, students will take all of the information and knowledge they have gained about a company, its prospects, and its downfalls and compile them into an in-depth research report. The purpose of this report is to allow students to formulate all the nebulous thoughts, concerns, assumptions, and expectations they have developed during the due diligence process into a clear, cohesive report. Also, this is the forum where students will present their earnings estimates and establish a target price. This target price is established by multiplying the projected

earnings-per-share (EPS) in two years by the students estimated price-to-earnings (P/E) ratio at that time. This p/e ratio will be determined both by considering past P/E's held by the company as well as the growth rate the company expects to maintain in EPS beyond that point (Reilly & Brown, 2000).

Then, based upon the upside potential in the stock price-from today's price to the projected two-years-out price-the student will make an investment recommendation for the stock. Finally, students will summarize this lengthy report into a one-to-two page stock recommendation. A template for this summary sheet will be made available to students so they only have to fill in the detail for the specific company they are covering.

CONCLUSION

This paper has outlined how schools can initiate true involvement rather than token participation by finance students in high-level stock analysis. Through an in-depth, hands-on, and industry-worthy process, students gain critical experience that will prepare them for successful entry in competitive Wall Street positions upon graduation. Furthermore, the extremely valuable research product that these student-analysts produce will be used to drive the performance of the school's investment portfolio of endowment funds. This exercise will not only enhance the level of education that these finance students receive, but it will also benefit the school, as well as the firms and local economy in the surrounding geographic region.

REFERENCES

Cunningham, L.A. (2001). *The Essays of Warren Buffett: Lessons for Corporate America*. New York, NY: Cardozo Law School.

Fisher, P.A. (1996). *Common Stocks and Uncommon Profits*. New York, NY: John Wiley & Sons, Inc.

Lynch, P. (2000). *One Up on Wall Street*. New York, NY: Simon & Schuster.

Reilly, F.K. & K.C. Brown (2000). *Investment Analysis and Portfolio Management* (Sixth Edition). Stamford, CT: Thomson Learning.

AGREEING TO LEARN: REFINING PROBLEM-BASED LEARNING

Sherry Robinson, Penn State University
skr12@psu.edu

ABSTRACT

Problem-based learning can be very effective in helping students learn without simply memorizing from books or lecture notes. However, many students are bewildered by the wide range of opportunities available, and even after a successful project, may feel that they "didn't learn anything." Learning Agreements, in which students state their learning goals, resources they plan to use and how they plan to demonstrate what they learned, have been used effectively in a business course that relied primarily on problem-based learning. These contracts provided sufficient structure to ease students' fears, while preserving the student-centered learning aspect of problem-based learning.

TRAINING IS ESSENTIAL TO CURB SCHOOL PLACE VIOLENCE: A RESEARCH REVIEW

Ingrad Smith, Mississippi State University
Jack E. Tucci, Mississippi State University
Harold White, Mississippi State University
jtucci@meridian.msstate.edu

ABSTRACT

This paper explores university-classroom violence as it relates to education in general and higher education specifically. This is especially relevant since school violence has been on the increase for the two decades and it is the leading cause of death for faculty in higher education Trends in society and returning veterans lead the authors to believe that these problems will be surfacing in higher education this decade as this shift in American culture takes root in colleges and universities. Teaching strategies and classroom discipline must change in face of the inadequacies in training that now exists. Suggestions are given as to how and when to modify teaching styles so that classroom control and learning can be maintained. We identify three leading causes of violence in universities: a sense of injustice, stress, and situations where individuals (students and staff) are being micro-managed.

LEARNING THROUGH ADVENTURE: A GUIDE TO USING OUTDOOR EXPERIENTIAL TRAINING IN MBA CURRICULA

William L. Weis, Seattle University
billweis@seattleu.edu
Nils Peterson, Teams and Leaders, Inc.
nils@teamsandleaders.com

ABSTRACT

There is growing interest in Outdoor Experiential Training (OET) programs and how they can strengthen MBA curricula by teaching students soft skills usually not emphasized in traditional classroom settings. Well designed OET programs offer students an opportunity to focus on developing leadership skills, including conflict management, team building, problem solving, group-decision making, and goal setting. In addition, team challenges presented in OET courses can address a variety of learning objectives, including: increasing trust among group members, honing group problem-solving skills, expanding participants' comfort zones, testing group and individual assumptions, avoiding group think dysfunction, and handling gender issues.

This discussion introduces OET programs and the essential structure of courses, offers a description of how instructors facilitate the OET learning process, and outlines the benefits of requiring an OET component in an MBA program. For over ten years, Seattle University has been offering an OET course in its MBA program and finds that it has enhanced student satisfaction, retention rates, volume of qualified applications, and tuition revenues – four key performance measures in higher education. The discussion closes by offering suggestions for initiating an OET component in an MBA curriculum.

CRITICAL PEDAGOGY AND MANAGEMENT EDUCATION

Art Whatley, Hawaii Pacific University
awhatley@hpu.edu

ABSTRACT

A critical pedagogical framework approach to management education is offered to offset the narrow, instrumental use of reason currently in use in management education. The current rationale largely ignores the more critical and emancipatory power of reason to bring about transformative change.

Over the past two decades the context in which organizations have operated has changed radically as result of globalization, information technology, and environmental crises. The emerging global economic system has an inherent bias in favor of the large, the global, the competitive, the resource-extractive, and the short-run. In this context, environmental and social costs are externalized onto the larger communities, the natural world, and the poor while profits are privatized. In this new environment, people, democracy, and community are difficult to keep at center stage in a system that reduces every human activity to market profitability

Critical pedagogy offers a way out of the narrow conundrums posed by existing management education. Instead of a rigid set of prescribed steps or models, Critical pedagogy involves a variety of diverse processes with the intent to "foster a rational, democratic development of modern institutions in which self-reflective, autonomous and responsible players become progressively less dependent upon received understanding of their needs, and are less entranced by the apparent naturalness or inevitability of the prevailing politico-economic order"(Alvesson and Willmont, 1996). It is argued that acquiring new knowledge alone without adopting a critical perspective is insufficient preparation for students aspiring to leadership positions in a globalizing world. A critical pedagogical model is presented as a way of helping students begin to identify and examine the underlying value structures of knowledge. In so doing, they examine whether existing value arrangements and assumptions are currently appropriate and valid.

Authors' Index