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RECENT BUSINESS DOCTORATES' TEACHER TRAINING AND PERCEPTIONS OF THEIR PREPAREDNESS TO TEACH BUSINESS COURSES

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ABSTRACT

With higher education currently facing further budget cuts in many states, teacher effectiveness continues to be crucial in a realm of potentially increased workloads with restricted resources. This study examines business teacher training from the standpoint of those who earned a broad-based business doctorate within the last 2-12 years and are currently teaching college or university business courses. Respondents indicated 75% held teaching responsibilities in their doctoral programs, with 24% who took a for-credit graduate class on teaching skills development, and 22% who took a similar non-credit class. Those who took a credit class were statistically more confident on their preparation to teach than those who took a non-credit class. There was no statistical difference in those who took a non-credit class and those with no teacher training at all. Also, non-native English speakers statistically had more confidence on their preparation to teach than native speakers. Overall, recent business doctorates thought they were quite well prepared to teach business, believe students rate their teaching skills as very good, and believe they are very enthusiastic about teaching. Lastly, older (pre-1998) graduates took far less for-credit or non-credit courses in teacher training during their doctoral programs than recent graduates and thought their credit course in particular was more helpful than did recent graduates.

INTRODUCTION

The current state of higher education is in a difficult position with states facing cuts in the millions of dollars for the foreseeable future, coupled with the continuing task of ensuring quality education for millions of postsecondary students across the United States. For the current year, most states were forced to cut funds again for higher education, which seems to be a continuance of previous trends, as Pulley (2012) revealed that "between 2005 and 2010, 30 states reduced higher education appropriations" (p. 18). Examples include Wisconsin, which planned to cut $250 million from the UW system for 2012-2013, and California, which cut $1.4 billion in 2012 for UC and Cal State schools, which comes directly after a $695 million cut was planned in 2011 for California community colleges (p. 17). Of course, these cuts are present in public universities, but the trend is seeping into private universities; for example, Iowa recently cut $4.8 million in private college tuition grants (Schettler, 2010); also, the large Texas Grant program, which can fund either public or private institutions, planned to be slashed in half (Parker, 2012).

With public institutions of higher education especially cutting budgets as much as possible before reaching the elimination of personnel, many public colleges and universities now must turn to the difficult task of cutting faculty and staff positions. These lean circumstances and

a recession which has brought many students back to postsecondary study make it imperative that professors are able to manage higher class enrollments due to staff cuts, and administrative tasks linked with accreditation and other duties, along with the core focus on research and service.

Of course, teaching at the postsecondary level is just one aspect of the job. Boya and Robicheaux (1992) surveyed over 600 faculty members in marketing to find that faculty members' views placed research as the most important, followed by teaching in second place, then service, and then consulting regarding areas of importance in their careers. However, these marketing professors did confirm that they spent the most amount of time engaged in teaching responsibilities. This movement away from teaching to greater research has long been documented (Boyer, 1990; Anderson, 1992)

How prepared college and university teachers are for handling larger enrollments and expanding duties is a subject of concern particularly in the field of business, as many new business school graduates trained by business teachers will soon inherit the task of dealing in the public and private sector with an ongoing recession. This paper attempts to shed some light on the amount of formal training and experience to teach that those who recently earned a broad-based business doctorate degree obtained, and their perceptions of how they are faring in their teaching duties.

It was hypothesized that many of these relatively newer doctorates had graduate teaching assistantships when completing their DBAs and PhDs. However, research is scant on how much formal training professors received to teach at the collegiate level, or how much experience they gained before taking their first teaching post after leaving the doctoral institution. The literature could also be augmented by greater insight into professors' holistic perceptions of the quality of their teaching skills.

Therefore, the purpose of the study was to determine business professors' levels of preparation to teach business courses at the collegiate level. More specifically, the major research questions of the study were: 1) What forms of formal teacher training were received during the business doctoral program?, 2) What are teachers' perceptions of this teacher training provided at the doctoral level?, 3) What are perceptions of preparedness to teach upon leaving the doctoral program, 4) What are teachers' perceptions of how students rate their skills in the classroom?, and 5) Did older (pre-1998) doctoral graduates have any differences in their teacher training experience than more recent graduates?

LITERATURE REVIEW

Much research involving quality of teaching in business subjects at the postsecondary level revolves around student perceptions, with scarce literature covering teachers' formal training to teach and perceptions of their own skills and abilities in the classroom. Not surprisingly, researchers have noted that many other factors than teaching ability were determinants of students' views of instructor skill, including biases relating to age, gender, major, and many more factors (Sprinkel, 2008; Lammers, Kiesler, Curren, Cours, & Connett, 2005; Ulrich, 2005; Whitworth, Price, & Randall, 2002). It has also been asserted that students' views of how "easy" or "hard" the professor is when grading has a large influence on student views of quality (Boysen, 2008; Boling, 2008; Addison, Best, & Warrington, 2006), though students really do believe that doing teacher evaluations improves the instructor's teaching of the course (Chen, Gupta, & Hoshower, 2004).

In the business and science classrooms, factors such as "knowledgeable in subject," "easy to understand," and "enthusiastic" ranked near the top in importance; "dress," "have a doctorate degree," and "humor" were at the bottom in a list of 14 factors which have the greatest impact on student perceptions of teaching effectiveness (Ahmad & Bahi, 2010). Student ratings of the high importance of teacher knowledge, clarity, and enthusiasm is certainly not new, as backed up by Feldman (1976). However, Porter and McKibben (1988) have lauded the importance of having a doctorate degree for the benefit of students, despite an ongoing discussion at the current time of the rise of the executive teacher and more practitioners teaching in the classroom with PQ status for purposes of AACSB (Porter & McKibben, 1988; Clinebell & Clinebell, 2008; Trank & Rynes, 2003).

The large amount of executive teachers as well as graduate assistants seems to magnify the call for more instruction of teachers on goals and performance measures for the classroom. In fact, formal training for graduate teaching assistants (GTAs) has not been around that long. "Universitywide [sic] GTA instruction programs began to develop in the early 1980s" (Butler, Laumer, & Moore, 1994, p. 15). University administrators surveyed 25 years ago claimed that 33% of their graduate teaching assistants were not formally made aware of any mission regarding teaching, nor were any teaching goals shared with them (Burkholder & Stevens, 1987).

In a 1992 study of doctoral business schools as identified by the AACSB directory, 26% revealed that they had no formal teacher training for graduate teaching assistants. However, 62% of these same GTAs claimed they were made aware of the teaching mission, 62% again got "relevant information" about syllabus construction, and 60% "were provided with relevant information" regarding lecturing and leading class discussions (Butler, Laumer, & Moore, 1994). The study never really identified exactly how formal the information actually was, though, and from what level it came.

In specific business disciplines, economics and marketing are some of the few fields that have seen recent research conducted to determine information about teacher training for professors. McCoy and Milkman (2010) surveyed over 100 economics professors who earned Ph.D.s since the year 2000 to find that 96% had teaching responsibilities while earning their doctorate in economics and taught a substantial mix of both stand-alone courses and recitation sections. However, only 12% of those professors had taken a formal for-credit course on teaching methods and most of those were required to do so. These findings regarding formal training to teach economics is very consistent with Walstad and Becker (2003). Further, the average teacher responded favorably on how prepared he or she felt to teach at the completion of the doctoral program (mean of 3.84 on a 5.0 scale). When asked how their current students rate their teaching, the response was very favorable, with 4.49 on a 5.0 scale.

Marketing professors indicated that during their doctoral work, 87% taught a course as a graduate assistant, and 58% had a course at the doctoral institution that prepared them to teach the course (of that percentage, 31% took the course for credit) (Johnston, Milkman, & McCoy, 2012). Griffith (1997) found that 75% of marketing doctorates taught a class during their doctoral programs, and 52% had formal training to aid in teaching their course(s).

Teacher training is becoming a larger issue, as some universities are increasing the numbers of teaching assistants for a variety of reasons (June, 2011). In the years to come, it seems that a potential avenue for exploration is greater faculty development programs on campus to assist faculty in working more efficiently (Camblin & Steger, 2000; Ginsberg, 2010). Of course, these programs require money, which, as previously briefly examined, is in short supply in higher education at the current time. Another avenue is through such programs as AACSB's

Bridge Program, which trains non-business faculty to teach in the business disciplines (Mangan, 2007). Most of these programs are in response to a faculty shortage in business subjects at the university level.

Obviously, teacher training is a very important issue in academia, especially in light of teacher shortages. Those with DBAs and comparable doctorates, such as a Ph.D in business education, often teach college and university-level courses that range from lower-level general business courses to graduate courses in specific disciplines, as determined by the particular university. The following section describes the methodology to gain insight from these business doctorates on their experiences with teacher training when earning their doctorates.

METHODOLOGY

To explore how fairly recent business doctorates feel about the pedagogical training they may have received during their doctoral programs, a survey was prepared and sent via email. The population was identified by the webpages of Colleges of Business throughout the United States, both public and private, using the University of Texas at Austin's website (http://www.utexas.edu/world/univ/state/) of colleges and universities by state as a guide.

Only professors claiming to have earned a DBA, a Ph.D. in Business Education (or an Ed.D.), or the more rare Ph.D. in Business Administration with no linked specific business discipline during or after year 1998 on their faculty web profile were identified to receive the survey. The population was delimited to contain only those with current teaching jobs at colleges or universities in the United States. Using these criteria, the original mailing list contained 511 usable email addresses. A link to the online survey was sent via email to the 511 potential participants.

Some of these emails bounced back due to dated information on webpages or automatic responses were received that indicated the recipient was not available at this time. Invalid addresses were investigated and attempts were made to find valid addresses. Invalid and discarded e-mail addresses, indisposed faculty, or those who filled in the survey but were revealed to have doctorates earned before the year 1998, were removed to bring the accessible number in the population to 451. Two weeks after the original e-mail was sent, a follow-up e-mail was sent to encourage non-respondents to complete the survey. As a result of these efforts, usable responses were received from a total of 84 people, a response rate of about 18.6% from the targeted sample. There were no statistically significant differences in these first 20 who completed the survey and the last 20 to complete the survey on any factor subsequently discussed.

Description Of Respondents

A list of the different doctoral degree granting institutions of respondents along with the number of respondents with a degree from each school is listed in Appendix A. When viewing this listing, the most popular schools for receiving a DBA, Ph.D. in Business Education, or Ed.D. became quite apparent, as every research university does not offer such a degree. Regarding the type of doctorate earned, 37 earned either Ph.D.s in Business Education or Business Administration, 35 earned DBAs, and 5 with Ed.D.s with a specialty in business education. Five also chose not to answer the question. Demographic information regarding respondents included 40.0% women, 60.0% men, and 9.7% non-native speakers.

Of respondents, 75% held teaching responsibilities during their doctoral programs and exactly 79% are currently in a tenure track position or have tenure. Respondents are spending an average of 64.2% of their time teaching in their current position in relation to other duties; however, in mixing with these results, three respondents indicated a deanship, department chair duties, or MBA coordinator duties.

It is also worthy to note that most doctoral graduates in the sample graduated from public universities, with only a minimal number of private universities represented on the list of institutions. No statistically significant differences were found, however, using Mann-Whitney, on any aspect of the study between public and private school graduates.

FINDINGS REGARDING TEACHER TRAINING OF RECENT DOCTORATES

Again, 75% of respondents reported having teaching responsibilities during their doctoral program; thus, it appears that use of graduate students in teaching remains widespread. Those teaching standalone courses taught on average 7.54 such courses cumulatively during the length of their full program, with one of the more extreme cases augmenting the question with the comment that he/she taught two sections per semester over 7 years. Overall, 47% with DBAs and similar doctorates who taught a standalone course during their doctoral programs had any formal teacher preparation training (for either credit or non-credit).

Credit Course Teacher Training

Of the respondents, 24% (20) indicated that they had taken a graduate credit course on undergraduate teaching. Of those 20 respondents, 14 took the course because it was required for those assigned teaching responsibilities in their departments. Two popular answers represented 71% of the response, with the majority (47%) indicating the course was three hours in one semester with another 24% indicating that the course was only one hour of credit in one semester. Overall, these credit courses averaged 2.55 credit hours.

Regarding who taught the for-credit class on teaching instruction to the doctoral students, results stood at exactly 37% for both “a faculty member from within your own department” and “a faculty member from another department within your college,” with another 21% being a “faculty member from another college.”

Respondents were also asked to rate “How well this graduate credit course prepared you for teaching,” which is shown in Table 1. Subjects who responded “well” or “very well” consisted of 52.6% of respondents, 36.8% responded “adequately,” 10.5% responded “poorly,” and none said “very poorly.” On a five point scale with “very well” as best, the average rating of these respondents to this question was 3.79.

Table 1	
How well did the graduate credit course on teacher training prepare you for teaching?	
Very Well	36.8% (7)
Well	15.8% (3)
Adequately	36.8% (7)
Poorly	10.5% (2)
Very Poorly	0% (0)

Non-Credit Teacher Training

McCoy and Milkman's (2010) survey of recent economics doctorates, which found that a large number (34%) of respondents had attended a non-credit program on teaching during their undergraduate programs, was similar to the findings of this study with recent broad-based general business doctorates. Specifically, 22% (16) of respondents attended such a non-credit program, for 10 of whom the program was required for those teaching for the department. It should be noted that only 16 respondents answered this question due to the larger number who took a for-credit course as opposed to a non-credit course. However, it is interesting to note that only two respondents attended both a required course on teaching and non-credit elective training because they wanted even more instruction in being an effective teacher.

The non-credit programs attended by respondents averaged about 14 total contact hours, with a range of 6 contact hours and a maximum of 48 contact hours. Who taught these no-credit courses was split between "faculty in the department" (19%), "faculty members from other departments" (50%), "faculty from another college" (37.5%) and "non-faculty staff members" (19%).

Respondents who attended a non-credit teacher preparation program were also asked to rate "How well this graduate non-credit course prepared you for teaching," shown in Table 2. In response, 25% responded "very well," 6.2% responded "well," 37.5% responded "adequately," 18.7 responded "poorly," and 12.5% indicated "very poorly." Again, on a five point scale with "very well" (5.0) being top, the average rating of these respondents to this question concerning non-credit preparation was 3.13 (of 5.0), which was lower than the average response to the same question concerning credit courses.

Table 2	
How well did the graduate non-credit course on teacher training prepare you for teaching?	
Very Well	25.0% (4)
Well	6.2% (1)
Adequately	37.5% (6)
Poorly	18.7% (3)
Very Poorly	12.5% (2)

Overall, 47% with DBAs and similar doctorates who taught a standalone course during their doctoral programs had any formal teacher preparation training (for credit or non-credit). However, the percentage of those for whom English is not the first language and who received teacher training in some form was much higher than the norm, with only three of these respondents who did not attend either a credit or non-credit teacher training course during their doctoral program.

All respondents were next asked "Overall, how well prepared for teaching were you at the completion of your doctoral program?" Again using the same 5-point scale described above, 45.0% responded "very well," 18.3% responded "well," 18.3% responded "adequately," 12.7% "poorly," and 5.6% "very poorly," for an average response of 3.80 (out of 5.0), as shown in Table 3.

Table 3	
Overall, how well prepared for teaching were you at the completion of your doctoral program?	
Very Well	45.0% (32)
Well	18.3% (13)
Adequately	18.3% (13)
Poorly	12.7% (9)
Very Poorly	5.6% (4)

RECENT GRADUATES' PERCEPTIONS OF PREPAREDNESS TO TEACH: CREDIT COURSE VS. NON-CREDIT COURSE VS. NO TRAINING

On a 1-5 scale, with 5 being "very well prepared" and 1 as "very poorly prepared," recent graduates were asked "How well prepared for teaching were you at the completion of your doctoral program?" Those with any type of formal teacher training at all (credit or non-credit) had a mean of 4.14 (which equates to they thought they were "well" prepared), compared to 3.62 of those with no training at all, which reached statistical significance through the Mann-Whitney non-parametric test ($p=0.03$).

Also, regarding opinions of how prepared to teach doctoral graduates were upon completion of the program, the mean response of those who had attended a course for credit was 4.33 (just above "well" at 4.0), and for those only attending the non-credit class, the mean was 3.86, which was marginally statistically significant using .05 alpha (at $p=0.05$). However, there was no statistical difference on the question of preparedness to teach between those who took a non-credit class on teaching methods versus those with no training at all.

Very interestingly, there was statistically significant difference between native and non-native English speakers in that those with English as a second language were much more confident about their preparation to teach than native speakers ($p=0.0009$) upon leaving the doctoral program. There were no statistically significant differences in the mean numerical responses from the two groups (5.0 being best) based on gender or age (age was simplified into two groups--under 40 versus 40+) regarding confidence in teaching ability upon graduation from the doctoral program. The Mann-Whitney test was again used for both gender and age.

Instructor Perceptions Of Effectiveness And Enthusiasm

We also asked respondents to self-report how students rate them as a college/university teacher (Table 4). Sixty-three percent of respondents indicated that their students rate them as "very good," 32.3% indicated "good," and only 4.2% indicated "adequate," which is almost identical to the study completed in economics by McCoy and Milkman (2010). No one indicated that their students rate them as "poor" or "very poor," for a very confident overall mean response of 4.58 (again, based upon 5.0="very good").

Table 4

How do students rate you as a college/university teacher?	
Very Good	63.4% (45)
Good	32.3% (23)
Adequate	4.2% (3)
Poor	0.0% (0)
Very Poor	0.0% (0)

Regarding "how do students rate you as a college/university teacher?," responses of those who had completed a credit course averaged 4.47, while those who had completed a non-credit course averaged 4.53 and those who had completed neither averaged 4.65. There were no statistical differences between those who had a credit course, had a non-credit course, or did not have any course at all on the factor of current student evaluations of teacher effectiveness. No statistically significant differences were found through Mann-Whitney in the two average numbers between the responses of males and females, different ages (grouped by under 40 versus 40+), nor non-native and native speakers. However, overall, when asked to rate themselves as a teacher, the average response was just a touch lower (4.54) from how teachers claim their students rate them, but without a statistically significant difference.

Respondents were then asked to self-rate their enthusiasm for teaching, as Ahmad and Bahi (2010) determined this was a major factor in student perceptions of learning. As shown in Table 5, about 75% of respondents indicated that they are "very enthusiastic," 22% indicated "enthusiastic," and 2.7% said they are "indifferent," with no teacher admitting to being "unenthusiastic" about teaching.

Table 5	
How do you rate yourself on enthusiasm as a college/university teacher?	
Very enthusiastic	75.3% (55)
Enthusiastic	21.9% (16)
Indifferent	2.7% (2)
Unenthusiastic	0.0% (0)

The average response out of 5.0 ("very well") on the question of instructor enthusiasm was 4.72. The responses of those respondents who had completed a credit course averaged 4.70, while those who had completed a non-credit course averaged 4.76 and those who had completed neither averaged 4.67. These numbers did not merit statistical significance between the groups of business teachers with for-credit training, no-credit training, or no training on the aspect of instructor enthusiasm. There were no statistically significant differences between genders, ages (again divided into two ago groups at age 40), nor native/non-native English speakers.

The survey concluded with the open ended prompt "If you have any additional comments covering the teaching preparation you received during your doctoral program, please provide them." Appendix B contains randomly selected open-ended comments, of which some are quite helpful to those currently teaching. The comments can be categorized in several specific categories: 1) Comments about teachers' particular situations regarding teacher training at their doctoral institutions, 2) Information about the value of gaining teaching experience, and 3) Lessons learned.

Comparison Of Recent And Older Graduates' Perceptions Of Teacher Training

Of those in the entire sample who had a for-credit class on teacher training in their doctoral program, 75% were indeed recent (post-1998) graduates. Likewise, 77% of those who had a non-credit class were also recent graduates.

In a comparison of recent and older (pre-1998) graduates about perceptions of training to teach in their doctoral program, interestingly, there was no statistically significant difference in how well prepared all graduates thought they were to begin teaching after the completion of their doctorate. The recent graduates' mean was 3.85 regarding how prepared they thought they were (on a scale of 5.0=very prepared to teach), and the mean for the older graduates was 3.68. This is an interesting result considering that the recent graduates had a much higher number of people who completed both for-credit and non-credit courses than the older graduates.

When examining the credit graduate class on its effectiveness, there was a statistical difference between recent and older graduates ($p=0.000982$) on how well the credit course helped prepare them to teach. Older graduates thought their course was more useful, with a mean of a perfect 5.0 (5.0=very well prepared) as opposed to the recent graduates (3.79). When also considering non-credit courses taken by older and recent graduates, there was no statistically significant difference between recent and older gradate opinions on how well the non-credit course helped them prepare to teach.

Indeed, besides the difference found in the opinion of the for-credit graduate class, there was no statistically significant difference in older and recent graduate opinions on any other question regarding teacher training that was asked. Regarding the overall feeling of preparedness to teach upon exiting the doctoral program, the recent graduate mean was 3.80 (of a best 5.0), and the mean for older graduates was 3.68. Thus, both sets of graduates felt prepared to teach.

There also was no statistical difference between older and more recent graduates on a self-report of how students currently rate them (recent=4.58, older=4.66), how teachers rate themselves (recent=4.54, older=4.63), and their own views of their enthusiasm in the classroom (recent=4.72, older=4.76).

CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

While the use of doctoral students for teaching at the larger doctoral universities remains widespread, the provision of formal instructional training to these students during their doctoral programs, either for credit or non-credit, is much less widespread. Only about half (47%) of respondents who taught a stand-alone course during their doctoral programs had any teacher preparation training (for either credit or non-credit). There were 21% who also did not teach a course at all as a graduate assistant and therefore had little teacher training.

Those who did attend training during their doctoral programs generally felt that it prepared them for teaching, and had a higher opinion, no altogether surprising, of the for-credit training instead of the non-credit teacher training they received. However, as a general rule, respondents felt that they were quite well prepared for teaching at the completion of their doctoral programs. A statistically significant difference was found in the responses of those who had completed formal pedagogical training during their doctoral programs and those who did not, regarding the issue of teachers' perceptions of their preparedness to teach upon doctoral graduation. However, whatever the opinions regarding the quality of teaching instruction they received in their doctoral programs, instructors subsequently become very confident on the job as almost all listed that they currently get good student evaluations and that they are still enthusiastic about teaching.

Since the study revealed the overwhelming majority of teachers thought they were well prepared to teach, despite year of doctoral graduation, an interesting supplemental finding revolves around why the older doctoral graduates (pre-1998) thought their credit graduate class was more useful than did the recent graduates (post-1998). The study, however, showed that older and recent doctoral graduates were almost identical in their opinions that they currently get good student ratings in the classroom, personally think they are good teachers, and also personally think they are enthusiastic in the classroom.

In conclusion, the researchers recognize that given the nature of this target population, and the smaller sample size, the results of this survey may not reflect what is currently occurring in doctoral programs, but is more likely to reflect what was occurring somewhere between 2-12 years ago. Further research in this area of teacher training for business doctorates includes: 1) Survey a larger sample size. Teachers with doctorates who instruct students on foundations of business and business education are very difficult to locate. There is no directory associated with professional organizations that helps to reach such broad-based business doctorates who are laying the foundation of business knowledge in colleges and universities before students go on to higher-level classes or specific majors in such areas as accounting or HR management; 2) Perform an identification of exemplary programs and a case study of these programs to identify

best practices would be helpful for further research in this area. This research would assist universities in enhancing their training programs and might also give universities that do not have teacher training programs for their teaching assistants some guidance in establishing these programs; 3) Survey those business doctorates who have graduated from international universities with a doctorate and perhaps teach in the United States, which would certainly help domestic and international teacher training programs alike in a comparison of practices.

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APPENDIX A

Table 6
Institutions Where Doctorate Earned

Louisiana Tech University (8)
Mississippi State University (6)
Argosy University (5)
New Mexico State (5)
Southern Illinois University – Carbondale (5)
University of Memphis (3)
University of South Florida (3)
Boston University (2)
Cleveland State University (2)
Florida State University (2)
Kent State University (2)
SUNY at Buffalo (2)
Temple University (2)
University of Chicago (2)
University of Illinois Urbana – Champaign (2)
University of Kentucky (2)
Arizona State University
Ball State University
Duke University
Golden Gate University
Harvard University
Indiana University
Kansas State University
Kennesaw State University
McGill University
Northern Illinois University
Nova Southeastern University
New York University
Rutgers University

University of Arkansas
University of California – Berkeley
University of California – Irvine
University of Cincinnati
University of Maryland
University of Massachusetts – Amherst
University of Massachusetts – Lowell
University of Missouri
University of Nebraska – Lincoln
University of North Carolina – Chapel Hill
University of Oregon
University of South Carolina
University of Southern Mississippi
University of St. Gallen (Switzerland)
University of Tennessee
Wayne State University

APPENDIX B

Table 7
Selected Comments from Respondents

I taught full time at the 4-year level for two years prior to entering a PhD program and had some good training prior to the PhD program. As such I was pretty prepared prior to the PhD program, and the AZ St Univ non-credit program was optional for me, but did it anyway.

Since MSU had the lowest completion rate in the nation for those who enrolled in the doctoral program, the program was completely revamped one year after I graduated. I heard that the teacher training component of the doctoral program was significantly beefed up.

My program was 1/3 business management, business writing and leadership, 1/3 counseling and 1/3 education-related courses. This combination worked well with my grad MBA and other grad level education courses realted [sic] to the business and healthcare majors in which I teach.

The doctoral program I graduated from was sub-standard. I asked two faculty members for advice on classroom management and they couldn't give me coherent answers. I think public speaking skills translate well into the classroom. The time I had to spend learning these skills and classroom management has reduced my research time and output.

We were encouraged to ask questions of the professors about how to teach or basic questions we might have about the material. It was a very fostering environment.

Given that the vast majority of doctoral graduates will work in teaching dominated institutions, it was a crime I received no teaching training, education or mentoring. This caused me endless trouble. I fumbled and groped around but never felt satisfied with what I was doing. It was not until I took the initiative (through a course I took at a College of Education) that I even realized that were journals in teaching in business and in statistics!!!

We do not have a formal teacher preparation program for the B-School and this is a problem. I only received teacher training because I received my doctorate from the Graduate School of Education.

The best preparation is to get in the classroom. Teaching is sink or swim. If you can swim, then you reflect.

There is no perfect way to teach. Teaching training course seem to present the notion that there is.....bad idea!

We had the opportunity to teach undergrads and MBA students, but I didn't take advantage, as I was already teaching FT at a nearby institution.

I did not have any preparation for teaching in the course work in the program.

Note: I had no teaching prep during my doctoral program. However, I had taught for 15 or so years before that, so my doctoral program had no effect whatsoever on my teaching methods or ability.

Seminar led by an outstanding professor (won numerous teaching awards). In the beginning of the semester it covered things like how to write a syllabus. Later in the semester it was mostly discussion about our experiences in the classroom & brainstorming on how to handle challenges (most of us had full class responsibility). Shared readings as well.

Attended many teaching workshops and seminars and participated as a fellow in a program called Preparing Future Faculty.

There was a class on teaching business and one on advanced teaching methods offered at the graduate level. I took them during my master's program. However, I have a B.S. in business education so I didn't feel like I needed additional teaching courses at the Ph.D. level.

I minored in education --- took 4 courses.

THE IMPORTANCE OF STUDENT EFFORT AND RELATIONSHIPS WITH GOALS ORIENTATIONS AND PSYCHOLOGICAL NEEDS

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ABSTRACT

Instructors may find that students are not making an adequate effort to learn. This study addresses student effort by developing and testing a model that shows how it can be influenced by helping a student fulfill three psychological needs as well as adopt an effective goal orientation. Achievement Goal Theory and Self-Determination Theory are drawn upon to advance hypotheses that are tested as a structural equation model using data collected from business students. Findings reveal the influence of these factors, thus highlighting their importance and suggesting that instructors give attention to them when deciding to take steps to increase student effort. Recommendations for structuring the learning environment and future research are provided. Before model development, we answer a fundamental question: Does the effort of a student matter? To answer, a summary of research indicating a positive relationship between effort and an individual's intelligence is presented. Research is also noted that revealed less effort among college students at a time when more effort is needed.

INTRODUCTION

Increasing student effort is a challenge for instructors when they find that students' perceptions of the effort needed to learn are inaccurate. It is critically important to meet the challenge because the effort extended is possibly the most important determinant of students' academic success (Pace, 1979) and personal and social development (Ethington & Horn, 2007). Instructors may design courses and interact with students in ways that influence the level of effort. However, there is a chance that the approaches taken may not yield good results. This study contributes to the literature by developing and testing a model that can serve as a framework for instructors to reflect upon when determining how to increase the quality of student effort.

We first highlight the need for research in this area by noting a study indicating the lack of student effort and a body of research that helps to answer a fundamental question: Does the effort of a student matter? Hypotheses are then advanced to form a model extending previous research on the quality of student effort. Previous research examined psychological needs (Pass & Neu, 2012) and the influence of them in tandem with a mastery goal orientation (Pass, 2013). The current study considers whether increasing student effort matters and the influence of psychological needs on both mastery and performance goal orientations. Relationships between each type of goal orientation and the quality of student effort are also proposed and tested.

The quality of student effort is defined as voluntary behavior or personal investment that a student makes for their education. The concept has been operationalized as how frequently students carry out learning activities, such as taking detailed notes during class (Pace, 1998). The frequency of completing activities may not fully represent the quality of student effort because

some students may accomplish activities frequently but without investing much "serious" effort. They may simply "go through the motions" without much effort to learn. For this reason, we expand the quality of student effort concept by considering the intensity exhibited by students when completing learning activities. The intensity of student effort is operationalized as the student's perceptions of how hard he or she works on completing learning activities.

BACKGROUND

We conceptualize a model with hypotheses for testing relationships between goal orientations, psychological needs, and the quality of student effort. Before covering the nature of achievement goals and psychological needs, we point to research indicating the positive relationship between effort and an individual's intelligence, thus answering a fundamental question: Does the effort of a student matter? Research is also noted that revealed less effort being exhibited among college students at a time when rigorous assignments are recommended as a way to improve learning. In light of the influence that effort has on learning, the presence of less effort among college students increases the importance of the current study.

Does Student Effort Matter?

Cattell's (1943; 1978) development of Investment Theory included identification of two types of intelligence: fluid intelligence and crystalized intelligence. Investment Theory proposes that an investment in fluid intelligence leads to crystalized intelligence. Fluid intelligence is the general ability to discriminate, comprehend, and reason. Students applying critical thinking skills to address situations or problems unfamiliar to them, would be using this type of intelligence. Crystalized intelligence is tacit knowledge associated with a particular interest or discipline (e.g., marketing, accounting, finance). It forms over time in one's memory through the application of fluid intelligence. Once crystallized intelligence develops, the use of fluid intelligence continues to facilitate development of more crystallized knowledge, thus building on the body of knowledge held by a student.

Personality traits are proxies for effort because effort is an essential aspect of some traits, as indicated by their definitions. For example, the presence of effort is indicated by the definition of Typical Intellectual Engagement (TIP). It is defined as the desire to engage and understand the world, interest in a wide variety of things, preference for completely understanding a complex topic, and a need to know (Goff & Ackerman, 1992). Typical Intellectual Engagement (TIP) correlates positively with crystalized intelligence (Goff & Ackerman, 1992), so it is likely that effort is correlated with this form of intelligence. Moreover, this relationship with crystallized intelligence suggests that an individual's effort influences academic development.

Reasoning that is similar to that leading to the conclusion that effort influences academic development applies to other personality traits having effort associated with them. Specifically, hard work (i.e., a preference for tasks or goals that are difficult to attain or require persistence) and absorption (i.e., finding oneself so deeply involved in an intellectual activity that the awareness of time and the nearby environment decreases) correlate positively with crystallized intelligence (Goff & Ackerman, 1992). These findings were confirmed in a meta-analysis of twenty-eight investment traits described as ones reflecting "the tendency to seek out, engage in, enjoy, and continuously pursue opportunities for effortful cognitive activity" (von Stumm, Chamorro-Premuzic, & Ackerman, 2011, p. 225). The meta-analysis revealed significant

positive relationships between Typical Intellectual Engagement (TIP), hard work, absorption and crystalized intelligence (Stumm & Ackerman, 2013). In sum, we conclude that these personality traits, related to crystalized intelligence, encompass a level of effort. Therefore, previous research findings indicate that effort contributes to the formation of crystalized intelligence that represents academic development.

The importance of the current study is indicated by the influence that effort has on learning and the recent research indicating less effort being exhibited among college students. The need to increase student effort is suggested by a study of 3,000 college students enrolled over a four-year period in 29 four-year colleges and universities. Study findings show that students during a two-year period did not improve in their critical thinking, complex reasoning, and written communication skills (Arum, Roksa & Cho, 2011; Arum & Roksa, 2011). Many of them reported they "experience only limited academic demands and invest only limited effort in their academic endeavors" (Arum & Roksa, 2011, pg. 204).The researchers recommend improving learning by giving students assignments that are more rigorous, thus necessitating greater student effort.

We conclude that student effort does matter. This is clear after considering the recommendation for assignments that are more rigorous and research findings based on Investment Theory that suggest a relationship between student effort and academic development. Improving our understanding of how to increase the quality of student effort is a beneficial endeavor. We draw on two theoretical perspectives to identify factors that are likely to influence student effort: Achievement Goal Theory and Self-Determination Theory. Factors from both theories are included in the tested model because attending to both the student's goal orientations and the fulfillment of psychological needs is likely to have the greatest impact on the Quality of Student Effort.

Achievement Goal Theory

Achievement goal theory explains motivation by focusing on the benefits someone wants from achieving a goal and the individual's beliefs about what constitutes the level of competence denoting achievement. The perception of competence stems from an individual's comparisons to objective standards (e.g., test results), a personal standard, or outcomes achieved by others (Elliot & Pekrun, 2007). The achievement goal theory proposes Mastery and Performance goal orientations as broad reasons for wanting to complete a task with each resulting in a different pattern of academic behavior (Ames 1992; Dweck & Leggett, 1988; Baranik, Stanley, Bynum & Lance, 2010) related to competence. With each orientation, an individual is likely to take an approach or avoidance reason for achieving competence (Elliot & McGregor, 2001).

The Mastery Goal orientation exists when students are "oriented toward developing new skills, trying to understand their work, improving their level of competence, or achieving a sense of mastery based on self-referenced standards" (Ames, 1992, p. 262). The students are motivated to learn, thus supporting the accomplishment of learning outcomes that instructors wish to achieve. They evaluate themselves using feedback (e.g., test results) and personal standards to compare their level of understanding to their own anticipated learning outcomes. The Mastery Goal orientation is one that an instructor would want to encourage. When comparisons to self-referenced standards are less than desirable, the student would adapt to improve understanding by spending more intense time and effort to achieve a higher level of mastery. The underlying motivation to improve is one of either approach or avoidance. The approach-avoidance

distinction is illustrated by one student motivated to develop competence (a mastery-approach goal) while another adopts a mastery-avoidance goal by trying to avoid incompetence (Elliot & McGregor, 2001).

The Performance Goal orientation exists when a student evaluates his or her competence by using the performance of others as a standard for comparison. When taking this orientation, learning activities are interpreted to be tests of their competence instead of pathways to achieve mastery of a subject. They compare their results to those of other students to determine if performance is adequate; one student may be motivated to outperform others (a performance-approach goal) while another wants to avoid performing worse than others (a performance-avoidance goal). The students strive to show others that their knowledge is adequate; they avoid undertaking activities that may reveal inadequacies. Students with a performance goal orientation want to "*prove their ability"* whereas those taking a mastery goal orientation have the goal of "*improving their ability"* (Dweck & Leggett, 1988, p. 259).

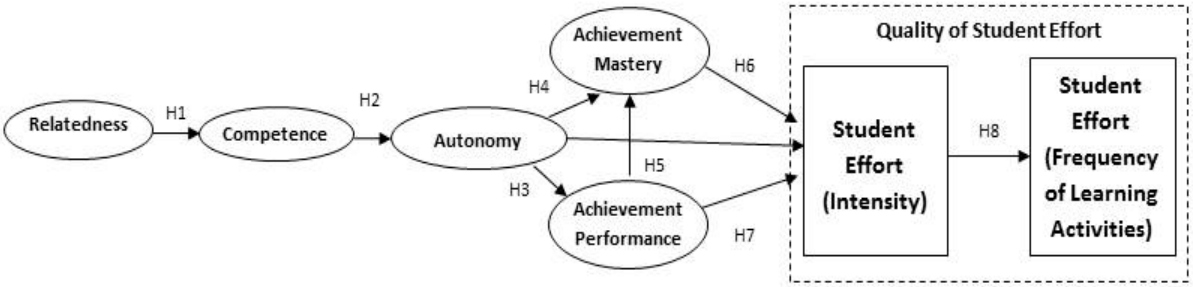
Self-Determination Theory

Self-Determination Theory (SDT) identifies competence, relatedness, and autonomy as innate psychological needs that are the basis for a person's self-motivation (Ryan & Deci, 2000; Deci & Ryan, 1985). A review of the literature revealed that competence and autonomy have been examined but with respect to the professor as a brand and how fulfilling them facilitates a feeling of attachment that a student has for a professor (Jillapalli & Wilcox, 2010). More recently, the influence of the three psychological needs has been studied with respect to student effort but not in tandem with both mastery and performance goal orientations (Pass & Neu, 2013). While other psychological needs may be salient, fulfillment of the three needs is related to increases in people's sense of well-being (Reis, Sheldon, Gable, Roscoe & Ryan, 2000) and associated with activities described as satisfying (Sheldon, Elliot, Kim & Kasser, 2001). While striving to reach a goal, a student is likely to be motivated to satisfy these needs because their fulfillment provides a sense of well-being and satisfaction. Moreover, a student is more likely to sense a higher degree of self-determination; the student will be more intrinsically motivated and perceive control over decisions to undertake learning activities.

MODEL DEVELOPMENT

We present hypotheses to support testing a model depicting the influence and interrelationships of Self-Determination Theory (SDT) concepts (i.e., relatedness to the instructor, competence, and autonomy) and achievement orientations (i.e., achievement mastery and achievement performance) on the quality of student effort. Figure 1 presents hypothesized relationships. We hypothesize that a student's perception of relatedness influences competence perceptions that contribute to the student's autonomy. In turn, autonomy influences both achievement orientations that influence the intensity of a student's effort in completing learning activities. The intensity of effort influences how often the activities are undertaken. Hypotheses are advanced below with definitions of the three psychological needs. Achievement mastery orientation, performance goal orientation, and the quality of student effort were previously described.

Figure 1
Quality of Student Effort: Achievement Goal Orientations and Psychological Needs
Study Hypotheses



Self-Determination Theory (SDT) takes a different perspective than goal-oriented theories to explain motivation. SDT focuses on the influence of the three psychological needs (i.e., relatedness, competence, and autonomy) that individuals want to satisfy (Deci & Ryan, 1985). Relatedness is the extent with which someone feels connected to others (Deci & Ryan, 2000). The perception of relatedness to the instructor develops as the student gets to know the instructor while taking a course. Competence is the extent to which an individual perceives the ability to function effectively in an environment (White, 1959). Students are likely to perceive greater competence with transference of the instructor's knowledge and this is more likely to occur when students perceive high levels of relatedness to the instructor. As the perception of relatedness increases, the instructor gains a better understanding of learning difficulties experienced by the student. In response, it is likely that helpful advice is given on how to accomplish learning activities, thus improving performance and influencing student perceptions of competence. Therefore, we anticipate a positive relationship between a student's perceptions of relatedness and competence.

H1 Relatedness to an instructor is positively related to student competence perceptions.

Competence develops by exploring, learning, and adapting to different situations (Deci & Ryan, 1985). According to self-determination theory, people by their very nature will be self-determining by striving to improve their competencies (i.e., skills and abilities). Therefore, a student's desire to increase competencies is likely to be related to perceptions of autonomy as defined by SDT. Autonomy is defined as the extent with which someone *makes their own choices* satisfying their own internal desires (Deci & Ryan, 2000; Ryan & Connell, 1989; Sheldon & Elliot, 1999). A student would decide on their own to learn instead of reacting to an extrinsic factor. This SDT definition is different from conceptualizing autonomy as the ability of someone to make an un-coerced decision. To illustrate, an instructor may have students choose from different assignments to achieve learning outcomes. If they choose without being coerced to select certain ones, then a type of autonomy exists but it is not necessarily the SDT concept of autonomy. The SDT type of autonomy would exist if the student freely chose an assignment and perceived it to be one that would satisfy a personal need (i.e., internal desire). The assignment has to be one that is recognized by the students as contributing to the learning outcomes they believe to be important. The proposed relationship between competency and autonomy is formally stated as:

H2 Perceptions of competence are positively related to student autonomy perceptions.

As autonomy increases, a student exhibits greater personal initiative to make choices to satisfy needs, such as the desire to learn and perform well as compared to others. We propose that positive relationships exist between autonomy and the two achievement orientations: mastery goal orientation and performance goal orientation. Positive relationships between autonomy and both orientations are proposed because it is likely that the student pursues a level of mastery while also comparing academic results to those of other students. When examining these relationships, a supplementary analysis will explore the indirect effects of the influence that a student's relatedness to the instructor has on the two goal orientations. The findings may suggest the extent to which an instructor influences goal orientations and which one is influenced to a greater degree.

We also hypothesize that a positive relationship exists between performance and mastery goal orientations. Students taking a performance orientation use comparisons to other students as benchmarks signaling areas for improvement. Comparisons may reveal less than desirable results, so a mastery orientation is followed as a student takes the initiative to undertake learning activities (e.g., reading assignments, attending classes) to resolve gaps in knowledge. When confronted with difficult material, the mastery orientation leads to the students adopting new learning strategies (Dweck & Leggett, 1988). The following hypotheses state relationships that will be tested:

H3 Autonomy perceptions are positively related to (a) a mastery goal orientation, and (b) a performance goal orientation.

H4 A performance goal orientation is positively related to a mastery goal orientation.

We also propose relationships between the two goal orientations and intensity of student effort. Two studies support the proposed relationships by showing that increases in intrinsic and extrinsic motivations leads to greater effort (Jaramillo & Spector, 2004; Tyagi, 1985). Findings from the studies are pertinent because each of the goal orientations entail either intrinsic or extrinsic motivation. For example, mastery orientation has been found to be positively related to intrinsic motivation (Cury, Elliot, DaFonesca & Moller, 2006). One study found a positive relationship between intrinsic motivation and student effort (Jaramillo & Spector, 2004), therefore mastery goal orientation is likely to be positively related to student effort. A performance goal orientation entails extrinsic motivation because the individual is motivated based on comparisons to others when deciding if an achievement has been realized. Another study reported that extrinsically and intrinsically motivated goals positively influence student effort (Tyagi, 1985). Since a performance goal orientation includes extrinsic motivation these findings indicate that this orientation is positively related to student effort. Relationships between the two goal orientations and intensity of student effort are stated in the following hypotheses:

H5 A mastery goal orientation is positively related to intensity of student effort.

H6 A performance goal orientation is positively related to intensity of student effort.

As noted, the intensity of student effort is conceptualized as the student's perception of how hard he or she works on course activities. The intensity suggests student involvement in

learning so it is likely to influence how often learning activities are completed. Therefore, we also hypothesize a positive relationship between the intensity of student effort and the frequency with which a student accomplishes learning activities.

H7 Intensity of student effort is positively related to how often students use study methods.

METHOD AND FINDINGS

A survey methodology was used to obtain data to test the model hypotheses. The questionnaires were administered during two semesters to students enrolled in seven upper division marketing courses at a public university. In total, 168 questionnaires were completed and 164 retained for data analyses. When responding, students were asked to think about a class taken during the previous semester and 63.1% selected a marketing class. Respondents were juniors (45%) or seniors (55%), male (43%) and female (57%) between the ages of 20 and 29 (93%). During the previous semester, 95% of the students took 12 or more course credit hours and 48% worked between 16 and 25 hours a week. The majority of students (87%) held an overall GPA of 2.7 to 3.6 and 53% of respondents reported a GPA of 2.7 to 3.4 within the marketing major.

The questionnaire included previously published scales to measure achievement mastery and performance goal orientations (Elliot & Church, 1997), perceived competence and perceived autonomy (Williams & Deci, 1996). Both mastery and performance orientations were measured as approach orientations. Measures for perceived relatedness to the instructor and the intensity of student effort were developed for this particular study. The frequency of learning activities completed by students was measured using questions modified from ones included on the College Student Experiences Questionnaire (Pace & Kuh, 1998). Questions related to writing activities were used because all students were required to complete writing assignments during all courses taken at the university. Revisions were made to measures based on feedback received from students during pretests.

Table 1 presents results of the exploratory factor analysis of scale items with all items loading .50, or greater, and being retained for further analysis. Table 2 reports results of the confirmatory factor analysis completed with LISREL 8.51 (Jöreskog & Sörbom, 2001) using a covariance matrix and maximum likelihood estimation. Construct scale items, standardized loadings and t-values are reported. Acceptable fit exists with indexes exceeding the generally accepted value of .90. Indicators load significantly on related latent variables, thus demonstrating internal consistency reliability. The model fit indices align with those recommended by Hu and Bentler (1999) when one is using a small sample size: a cutoff value close to .95 for TLI (NNFI) and CFI with cutoff values of .08 and .06 for SRMR and RMSEA, respectively. Measurement and structural equation models also conformed to these criteria for small sample model evaluation.

Table 1
Exploratory Factor Analysis

Construct and Scale Item (n=164)	Factor						
	1	2	3	4	5	6	7
Relatedness (to Instructor)							
REL1 The instructor was friendly towards me.	**.859**	.034	-.002	.108	.191	-.033	.130
REL2 The instructor did not wish to spend much time with me.(R)	**.820**	.029	-.078	.024	.064	.102	-.030
REL3 I was able to get along with the instructor of this course.	**.808**	-.077	-.039	.126	.153	.078	.145
REL4 Overall, it was difficult to get along with the instructor (R)	**.703**	.000	-.087	-.015	.169	.063	-.003
REL5 The instructor seemed to understand challenges I face when learning.	**.662**	.109	-.020	.032	.068	.122	.163
Performance Mastery							
PER1 My goal in the class was to get a better grade than most of the students.	-.032	**.816**	.019	.033	.047	.073	-.077
PER2 In the class, it was important to me to do better than the other students	.055	**.779**	-.010	.010	.235	.084	.017
PER3 It was important to me to do well as compared to others in this class.	.037	**.744**	-.048	.098	.050	.029	.075
Student Effort (Frequency of Learning Activities)							
EFFACT1 Asked someone for advice and help to improve your writing.	-.020	.012	**.864**	.119	-.045	.022	-.081
EFFACT2 Asked people to read something you wrote to see if it was clear to them.	.066	.026	**.767**	.084	.040	.146	.088
EFFACT3 Referred to a book or manual about writing style, grammar, etc.	-.206	.004	**.609**	.129	-.043	.145	.157
EFFACT4 Revised a paper two or more times before you were satisfied with it.	-.083	.076	**.561**	-.058	.113	.081	.010
Achievement Mastery							
ACH1 It was important to understand course content as thoroughly as possible.	.055	.088	.077	**.880**	.082	.221	.052
ACH2 I wanted to learn as much as possible from this class.	.135	.151	.074	**.697**	.116	.248	.108
ACH3 I desired to completely master the material presented in this class.	.054	.357	.110	**.607**	.017	.099	.168
Competence							
COMP1 I was fully capable of learning the material in this course.	.182	-.020	.034	.028	**.806**	-.010	.128
COMP2 I felt confident in my ability to learn material in this course.	.207	.056	.044	.216	**.760**	-.107	.203
COMP3 I was able to meet the challenge of performing well in this course.	.254	.161	.058	-.022	**.633**	.208	.058
Intensity of Student Effort							
EFFINT1 I spent a lot of time and effort completing the assignments in this class.	.068	.049	.239	.274	.064	**.702**	.179
EFFINT2 I worked very hard in this class.	.019	.109	.206	.136	.132	**.764**	.136
EFFINT3 I did not try very hard in this class. (R)	.087	.041	.026	.180	-.133	**.543**	.068
Autonomy I participated actively in the class because:							
AUTO1 A solid understanding of the subject is important to my intellectual growth.	.116	.043	.152	.390	.252	.190	**.654**
AUTO2 I felt like it's a good way to improve my understanding of the material.	.274	.158	.137	.225	.273	.204	**.595**
AUTO3 I would feel proud of myself if I did well in the course.	.299	.216	-.025	-.039	.217	.244	**.512**

Maximum Likelihood Estimation with Varimax Rotation. Responses obtained using 7-point scale.
Scale anchors for Student Effort (Frequency of Learning Activities) were 1- never, 4-often, 7-very often
Scale anchors for all other constructs were 1-not at all true, 4–somewhat true, 7-very true

Table 2
Confirmatory Factor Analyses

Construct and Scale Item (n=164)	Loading *	t value
Relatedness (to Instructor)		
REL1 The instructor was friendly towards me.	.92	14.84
REL2 The instructor did not wish to spend much time with me.(R)	.76	11.26
REL3 I was able to get along with the instructor of this course.	.84	13.11
REL4 Overall, it was difficult to get along with the instructor (R)	.66	9.14
REL5 The instructor seemed to understand challenges I face when learning.	.68	9.71
Performance Mastery		
PER1 My goal in the class was to get a better grade than most of the students.	.61	7.74
PER2 In the class, it was important to me to do better than the other students	.77	9.71
PER3 It was important to me to do well as compared to others in this class.	.79	9.83
Student Effort (Frequency of Learning Activities)		
EFFACT1 Asked someone for advice and help to improve your writing.	.57	6.39
EFFACT2 Asked people to read something you wrote to see if it was clear to them.	.88	7.57
EFFACT3 Referred to a book or manual about writing style, grammar, etc.	.94	8.60
EFFACT4 Revised a paper two or more times before you were satisfied with it.	.50	6.08
Achievement Mastery		
ACH1 It was important to understand course content as thoroughly as possible.	.87	13.15
ACH2 I wanted to learn as much as possible from this class.	.80	11.78
ACH3 I desired to completely master the material presented in this class.	.69	9.68
Competence		
COMP1 I was fully capable of learning the material in this course.	.81	11.52
COMP2 I felt confident in my ability to learn material in this course.	.87	12.65
COMP3 I was able to meet the challenge of performing well in this course.	.60	8.36
Student Effort (Intensity)		
EFFINT1 I spent a lot of time and effort completing the assignments in this class.	.72	10.07
EFFINT2 I worked very hard in this class.	.87	12.45
EFFINT3 I did not try very hard in this class. (R)	.58	7.50
Autonomy I participated actively in the class because:		
AUTO1 A solid understanding of the subject is important to my intellectual growth.	.81	11.96
AUTO2 I felt like it's a good way to improve my understanding of the material.	.81	11.77
AUTO3 I would feel proud of myself if I did well in the course.	.55	7.42
Model Fit n=164 χ^2=258.46, 226 df, p=.07, RMSEA=.029 NNFI = .96, CFI= .97 , GFI= .89, AGFI=.85, SRMR =.064		

* Standardized loadings t-values >= 2.00 are significant (p<.05)
Responses obtained using 7-point scale.
Scale anchors for Student Effort (Frequency of Activities) were 1- never, 4-often, 7-very often
Scale anchors for all other constructs were 1-not at all true, 4–somewhat true, 7-very true

A summary of the measurement model that included all variables with CFA loadings and error variances fixed for generation of the structural model is reported in Table 3. The CFA model has an acceptable fit to the data. The average variance extracted for each variable is above the generally recommended .50 level and composite reliabilities exceed the recommended .70 (Nunnally, 1978).

Table 3
Measurement Model Results

	Number of Items	Mean (SD)	Composite Reliability	Avg. Variance Extracted
Student Effort (Intensity)	3	5.11 (1.10)	.87	.69
Student Effort (Frequency of Learning Activities)	4	3.51 (1.53)	.83	.56
Relatedness	5	5.67 (1.22)	.88	.61
Competence	3	5.90 (.880)	.81	.59
Autonomy	3	5.30 (1.13)	.77	.54
Achievement Performance	3	4.30(1.34)	.77	.53
Achievement Mastery	3	5.12 (1.20)	.83	.62

Loadings are standardized. t-values are in parentheses and values >= 2.00 are significant (p<.05)
Scale anchors for Student Effort (Frequency of Activities) were 1- never, 4-often, 7-very often
Scale anchors for all other constructs were 1-not at all true, 4–somewhat true, 7-very true

Model Fit n=164 χ^2=290.85, 271 df, p=.19
RMSEA=.021, NNFI=.98, CFI= .98, SRMR = .065
GFI= .88, AGFI=.86

Hypotheses were tested by generating a structural equation model. The results are reported in Table 4 and Figure 2 shows the standardized loadings and related t-values for the hypotheses. The results suggest that H1, H2, H3, H5, and H7 cannot be rejected because all relationships have a t-value greater than 2.00. The t-values associated with H4 and H6 are not significant so the proposed relationships are not supported by this data. The hypothesized model has an acceptable fit, as indicated by a non-significant chi-square (χ^2=296.13, 282df, p=.27) and fit measures conforming to the values recommended by Hu and Bentler (1999).

Figure 2
The Importance of Student Effort and Relationships With Goals Orientations and Psychological Needs

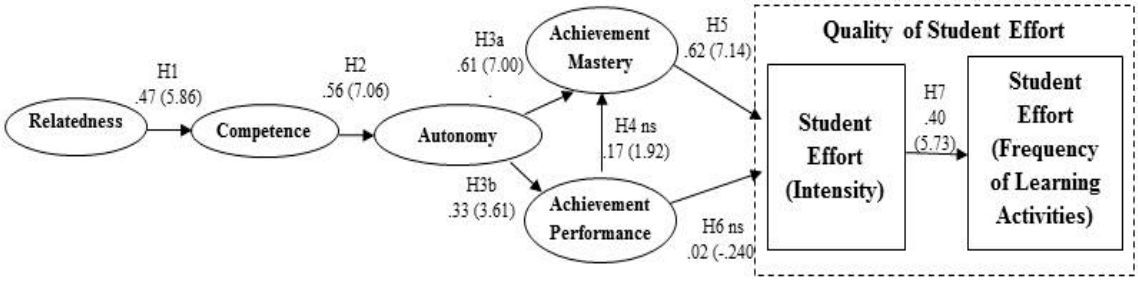


Table 4
Structural Equation Model Results
Loadings are standardized. t-values are in parentheses and values >= 2.00 are significant (p<.05)

To / From	Competence	Autonomy	Achievement Mastery	Achievement Performance	Student Effort (Intensity)	Student Effort (Frequency of Learning Activities)
Relatedness	H1 .47 (5.86)		---	---	---	---
Competence	---	H2 .56 (7.06)	---	---	---	---
Autonomy	---	---	H3(a) .61 (7.00)	H3(b) .33 (3.61)		
Achievement Mastery	---	---	---	---	H5 .62 (7.14)	---
Achievement Performance	---	---	H4 .17 (1.92)ns	---	H6 .02 (-.240) ns	---
Student Effort (Intensity)	---	---	---	---	---	H7.40 (5.73)
R^2	22%	32%	47%	14%	36%	16%

Model Fit n=164, χ^2=296.13, 282 df, p=.27, RMSEA=.02, NNFI=.98, CFI=.98, SRMR = .076, GFI=.87, AGFI=.86

Table 5
Indirect Effects of Relatedness with Instructor and Perceived Competence

From	To	Direct Effects	Indirect Effects	Mediating Variables
Relatedness				
Relatedness	Autonomy	---	.27 (4.63)	Competence
Relatedness	Achievement Mastery	---	.18 (4.17)	Competence Autonomy
Relatedness	Achievement Performance	---	.09 (2.87)	Competence Autonomy
Relatedness	Student Effort (Intensity)	---	.11 (3.69)	Competence Autonomy Achievement Mastery Achievement Performance
Relatedness	Student Effort (Frequency of Learning Activities)	---	.04 (3.15)	Competence Autonomy Achievement Mastery Achievement Performance
Competence				
Competence	Achievement Mastery	---	.37 (5.70)	Autonomy
Competence	Achievement Performance	---	.19 (3.26)	Autonomy
Competence	Student Effort (Intensity)	---	.22 (4.64)	Autonomy Achievement Mastery Achievement Performance
Competence	Student Effort (Frequency of Learning Activities)	---	.09 (3.67)	Autonomy Achievement Mastery Achievement Performance

Loadings are standardized. t-values are in parentheses and values >= 2.00 are significant (p<.05)

Findings from the analysis of the influence that a student's perceptions of relatedness to the instructor and competence have on the two goal orientations are reported in Table 5. The indirect effects show the complex interrelationships among the factors and suggest the importance of attending to the student's perceptions of relatedness because they are significantly related to both achievement mastery and performance goal orientations. A stronger indirect

effect exists with mastery goal orientation (.18, t = 4.17) with the performance goal orientation indirect effect being weaker (.09, t = 2.87).

As a student's perception of relatedness increases, the student's mastery orientation is likely to increase because the instructor is better able to convince the student why it is important to learn course concepts. Although an instructor encourages this orientation among students, the indirect relationship between relatedness to the instructor and performance goal orientation also exists. This may be present because instructors might refer to the work of other students when explaining the importance of mastering a subject. For example, an instructor might provide grade distributions after exams so student can determine their performance relative to others.

DISCUSSION, LIMITATIONS AND FUTURE RESEARCH DIRECTION

The need to focus on increasing the quality of student effort is indicated by research reporting less effort by college students and suggesting that effort is associated with the formation of intelligence (Goff & Ackerman, 1992; Arum, Roksa & Cho, 2011; Arum & Roksa, 2011). This study revealed relationships between the quality of student effort, the student's fulfillment of psychological needs, and achievement goal orientations. The model and significant relationships provide instructors with guidance as they determine how they should interact with students and manage a classroom environment. Although they may be doing things that influence students' perceptions of the three psychological needs and adoption of the goal orientations, they may benefit by questioning the extent with which a chosen teaching method, or style, influences factors in the model.

The findings reported in Table 4 show that a student' perception of relatedness to the instructor positively influence competence perceptions that, in turn, have a positive impact on autonomy perceptions. Relatedness account for 22% of the variation in competence perceptions, as indicated by the R^2 value, and it has a standardized loading of .47. Perceived competence has a relatively high influence on autonomy as indicated by the standardized loading of .56 and an R^2 value showing that 32% of the variation in autonomy is associated with competence. Autonomy has a significant influence on both achievement mastery and achievement performance with a much stronger influence on achievement mastery. The standardized loading associated with mastery orientation is .61 as compared to .33 for an achievement performance orientation. Achievement mastery has a strong impact on the intensity of student effort with a standardized loading of .62 and an R^2 value of 36%. Achievement performance was not found to be significantly related to achievement mastery or the intensity of student effort.

The importance of attending to a student's perceptions of relatedness to an instructor and competence are further supported by the indirect effects that they have on other variables. Table 5 reports relatively strong indirect effects from relatedness to autonomy (.27, t = 4.63) and competence to achievement mastery (.37, t = 5.70). The direct effects of relatedness to an instructor on competence as well as the other indirect effects reported in Table 5 indicate the importance of interactions with a student. As time is spent with a student (increasing perceptions of relatedness), an instructor can address the student's understanding of course material to increase competence. As students get to know an instructor, their interactions provide opportunities for an instructor to improve the student's competence and convey the importance of completing course activities. When students recognize the value of learning activities it is more likely that they will make autonomous decisions to undertake them. A self-determination process occurs as the student adopts, as his or her own the external motives for doing something

(i.e., reasons to study) that are conveyed by an instructor (Ryan & Deci, 2000; Deci & Ryan, 1985). As the motives are internalized, a shift in the perception of locus of causality occurs; the externally generated reason for doing something becomes at least partially intrinsic. They wish to satisfy their own internal desires. The reason for doing something is not fully attributed to the external source (Deci & Ryan, 1985; Blais, Sabourin, Boucher & Vallerand, 1990; Ryan & Connell, 1989).

The findings suggest some guidelines to consider when interacting with students and managing the learning environment. A framework receiving support among instructors, because it addresses development of a mastery goal orientation, is termed TARGET (Ames, 1992). A brief description is provided here to suggest actions an instructor may take to encourage adoption of this orientation. These dimensions are presented in isolation however; it is intuitive that they are interrelated. This thought should be kept in mind when attempts are made to change the learning environment of students.

Task refers to the type of task assigned to students by their instructor. Challenging and interesting assignments should lead to an intrinsic purpose to learning, or autonomy. Another way to achieve this is by having an assignment with a real-world component such as a case study that is relevant to the major learning objectives. This would be particularly true when the learning objectives are identified as essential knowledge for a successful career. It is best to have assignments that achieve "buy-in" among students. They must understand the relevance of an assignment because it could be a demanding one. It is likely that when students are required to use what they should have learned in a field outside of their major they balk. Therefore getting them to understand and buy in to the relevance of a demanding task is important in order to achieve autonomy.

Following the TARGET framework, *Autonomy* is the amount of control students are given in their class concerning task completion, method of learning, and pace of learning. It is unlikely that students have many opportunities to exercise much control in a university setting but possibilities do exist. Take the case of an attendance policy that makes no provision for excused absences but allows for a generous number of unexcused absences before a penalty is assessed. Students can exercise control and takes ownership of managing his or her behavior. In effect, they are given a resource of the course to manage with minimal external control. Where appropriate, students could be allowed to choose their pace of learning. If online testing is used in the course, students could elect to take exams whenever they are ready. They could email the instructor during certain hours of the day for the instructor to make the exam available. In courses where teamwork is the tradition, students could elect to go it alone. Although the experience of working in a team would be lost, it does provide an alternative method of learning.

Recognition refers to acknowledging effort and progress of students; this area of TARGET is likely to encourage perceptions of competence. Recognitions can be given in the form of feedback on performance. Students usually do something well on a project or assignment. The feedback can be provided in writing or in person. Even if students fall short of the learning goal, if effort is evident, it should be acknowledged to promote mastery as opposed to meeting external standards (i.e., a grade).

Grouping refers to whether groups are used and the composition of the groups. Group or teamwork can aid in reducing isolation, increase social skills, and increase creativity. Handpicked teams can be composed of individuals with different abilities or backgrounds. The group can be held accountable for their collective performance and members can be held accountable for their individual performance. This will lower the likelihood of free riding and

encourage quality effort and meaningful participation. While a high ability team may be motivated to mastery learning, a low ability team may not. Instead, they will be focused on working toward a grade.

Evaluation is the manner in which instructors evaluate students' work. The theme of evaluation is to avoid social comparison. For example, announcing high and low grades and grade distributions to the class is common practice. However, this provides little information about mastery, just relative performance and hence students may choose a performance goal orientation. Evaluation should encourage the student to try harder and provide the opportunity to improve on a less than perfect performance or answer. The focus should be on how to improve on shortfalls and achieve mastery. When it is not practical to avoid social comparison, it is important that it not be emphasized. *Time* refers to the amount of time instructors give their students to learn. In the classroom, the instructor could maximize the time spent on engaging and complex topics that are likely to be the most relevant of a course, while time spent on mundane topics can be minimized. If teams are used, instructors can require mandatory meetings with them outside of the classroom. This additional time can facilitate the exchange of proper feedback and evaluation as described above.

As with any study, there are limitations with this one that may be addressed with future research. The findings are based on responses from students at a single institution so data collected from students at another university may yield different results. Multiple universities and contexts (e.g. undergraduate and graduate students) could be included with future research to increase generalizability. Another limitation is that one of the dimensions of the "quality of student effort" (i.e., how often activities were undertaken) was measured as writing activities. While the measure adequately represents this second dimension of effort, it reduces generalizability of results because some schools may not have a writing requirement. Future research could address this by including measures of other learning activities as forms of student effort.

This study indicates three areas for future research. First, research to increase understanding of the influence of specific learning activities on the three psychological needs and goal orientations is needed. The current study yielded a guiding model and we explained the TARGET framework as one suggesting ways to improve the learning environment. To explore the learning environment in more detail, a study of specific teaching methods may yield even more ideas for increasing the quality of student effort. The context of the educational setting could also be examined. Specifically, lecture-based, online, and hybrid courses could be examined to determine differences in the influence of the three psychological needs and goal orientations. Research of online courses may be very interesting because instructors typically have little face-to-face interactions with students and these appear to be fundamental to students' perceptions of relatedness to an instructor.

A second area for future research is the analysis of a performance goal orientation to learn more about its influence. Although we did not find that this orientation influenced a mastery goal orientation or a student's intensity of effort, it would be good to know more about its influence. A third topic for future research is one placing attention on the student's perception of relatedness with an instructor. Studies have shown that a student's emotions (Putwain, Sander & Larkin, 2013), perception of their intellectual abilities (Dinger & Dickhäuser, 2013), and the perceived difficulty of assignments (Senko & Hulleman, 2013) influences the adoption of a goal orientation. A student's perception of relatedness could be examined to explore the extent with which it moderates relationships between these and adoption of different goal orientations.

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BUSINESS LEADERSHIP EDUCATION: A VIRTUAL STORYTELLERS EXERCISE

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ABSTRACT

Online courses are becoming popular in business education and require creative strategies to maintain students' engagement and facilitate contextual and complex understanding of class concepts and theories. In this paper, we are proposing an exercise for online undergraduate Organizational Behavior courses to motivate students and enhance their understanding of class concepts through the use of storytelling. In this exercise, students work in teams to narrate stories that describe with rich detail different concepts and theories pertaining to team management in general and virtual team management in particular. The results suggest that students develop a higher level of critical thinking in virtual team management by storytelling and develop strong relations with other members of their virtual teams.

Key concepts: storytelling, online education, organizational behavior, virtual teams.

INTRODUCTION

The demand for online courses is experiencing an impressive growth in business education (Alavi & Leidner, 2001). Questions have been raised regarding the effectiveness of online courses in comparison with the delivery of these same courses in the classroom. Online students report lower levels of overall satisfaction with online courses and with the mode of instruction used in online courses. They rate their professors lower than in classroom settings, and express lower levels of interest in the subject matter when delivered online (Kartha, 2006).

In this paper, a semester-long exercise, called the Storytellers Exercise is introduced in an Organizational Behavior (OB) course. Its purpose is to improve complex and contextual understanding of OB concepts and theories, enhancing recollection of class materials, and motivating and engaging students through a creative and fun activity. The Storytellers Exercise was designed to generate highly interactive virtual team experiences for students in online OB courses and to foster learning through active and systematic reflection on OB concepts and their own experiences using storytelling.

This paper is structured in three parts. In the first part, we review recent literature to discuss the potential of storytelling as a teaching tool. Then, we describe the Storytellers Exercise and its key elements. Finally, we share some results of the exercise and their implications for student virtual team learning and engagement.

STORYTELLING

Storytelling is a powerful communication tool. In organizations, leaders use stories to convey their passion for their vision and inspire their followers (Guber, 2007). Stories help the transformational leader align their followers' understanding of the complexities and dangers in the status quo and convey the importance of their vision to advance that state of the organization for the better (Conger, 1999). In TED Talks, for example, the power of storytelling is demonstrated in the worldwide popularity of their presentations, which captivate a worldwide audience in the discussion of concepts that are often technical and complex through the narration of stories. In addition to being a communication tool, storytelling can also be used, by integrating stories, to make sense of events and construct experiences (Gephart, 1991; Morgan & Dennehy, 2004), helping individuals manage their tacit knowledge and make it explicit (Ambrosini & Bowman, 2001). Shamir and Eilam (2005), for instance, explain the value of stories in the development of the authentic leader, who uses the narration of a personal story in making sense of who they are. Authentic leaders evaluate the importance of their different values and how those drive their behaviors throughout their lives by exploring and telling their personal story.

In education, storytelling is frequently used to attract students' interest to the theories and concepts discussed in class, often as a hook for the introduction of new class material. Using stories facilitates students' recollection of class concepts and enhances students' understanding of the complexity of these materials (Down & King, 1999; Harbin & Humphrey, 2010). Through the details of the story, students build a more coherent understanding of the complexities of a phenomenon. A frequent example of the use of narratives for this purpose in the Organizational Behavior field is the use of the NASA Challenger disaster as a typical example of groupthink. This dramatic story helps students develop a richer understanding of the different symptoms of this negative team dynamic. Thus, stories are selected, prepared, and shared by the professor to build the interest and enhance the understanding of students.

While professors' narratives can certainly be very powerful educational tools, research in management education has also started to realize the potential benefits of using students' stories as an educational tool. As the storyteller takes both an active role (as a narrator) as well as an analytical role, storytelling fulfills two of the most important aspects of Kolb's (1984, p. 31) learning cycle: "In the process of learning one moves in varying degrees from actor to observer and from specific involvement to general analytic detachment." When students tell their own stories, they develop a stronger relational integration of theories and contextualize the concepts they learn (Barone, 1992; Morgan & Dennehy, 2004; Rosile, 2006). Students can use narratives to make sense of personal or professional experiences, to bring meaning to class theories and concepts, and also to make the analysis more fun and memorable (Morgan & Dennehy, 2004). In the Storytellers Exercise, students create fictional stories to describe team dynamics and propose ways to effectively manage these dynamics.

THE STORYTELLERS EXERCISE

The Storytellers Exercise is a narrating exercise in which students collaborate within their virtual teams in writing stories on one or multiple OB theories and concepts. This exercise requires that students demonstrate both critical thinking and creativity, improves their

understanding and recollection of the concepts studied, and motivates greater involvement and enjoyment from students. Stories can be designed to include any concepts within the field of OB. In our course, an initial story focused on groupthink, an important negative dynamic that affects decision-making quality in groups with high levels of cohesion. A second story focused on the challenges faced by virtual teams.

Story 1: A Story Of Groupthink

In the first exercise, students were asked to create a story descriptive of a Groupthink dynamic (see Appendix A). The dynamics involved in Groupthink were discussed by Janis (1974) as a faulty decision-making process that occurs when team members censor their own ideas to avoid disagreeing with the group. The result is a deterioration of the team's ability to reason and analyze alternatives effectively. Groupthink dynamics can be recognized through a list of eight symptoms, which are introduced to students prior to the delivery of the assignment: illusions of invulnerability, collective rationalization of threats, belief in the inherent morality of the group, stereotyped perceptions of individuals external to the group, direct pressure on those that disagree, self-censorship of own disagreements, emergence of self-appointed mind-guards that protect the team from members that threaten the team's cohesiveness, and a false sense of unanimity.

In the assignment, students are instructed to provide rich detail of the groupthink phenomenon in the story (fictional or real) of a team that undergoes this dynamic, and to identify each of groupthink's symptoms explicitly. Below we have included an excerpt of a groupthink story provided by a team in our OB course. In this excerpt, the team discusses potential causes for self-censorship and uses class material to suggest alternative team dynamics to address their problems of groupthink.

> *Joe decided to nip this one in the bud. He called a meeting and let everyone voice their opinions. During the meeting, Joe noticed that no one else was speaking up and giving their opinion unless it was to agree with his. He understood why everyone was acting like this. He figured that was because they were young, inexperienced, and in a new situation they were probably afraid to speak up. Immediately, he realized he had to fix this quickly. Joe thought about what he should do for a while and decided the best way to solve this problem was for him to state the task at hand and let everyone else in the group say what they think before he gave his thoughts on it. Once he took care of the self-censorship problem, the quality of the work sky rocketed and new great ideas that Joe would have never come up with showed up.*

In their story, students used one of the suggestions to prevent the influence of a strong leader in members' self-censorship to empower subordinates. After the manager decided to open space for his employees to speak before sharing his opinions, followers were more willing to express their ideas when they did not know already the opinion of their leader.

Story 2: Incomplete Story Of A Virtual Team

The second story of the Storytellers Exercise is used as a wrap-up assignment at the end of the semester. Teams receive the incomplete story of a virtual team in a business setting that includes only the introduction and the conclusion. Teams are expected to write the body of the story (see Appendices B and C). Student teams in online courses can be considered virtual teams because they work from different locations and, due to their different schedules, often also with

temporal boundaries (Martins et al., 2004). Given their direct experience, students can draw comparisons between their experiences as a virtual team and those they narrate as a group.

In their stories, teams are instructed to select five concepts or theories presented in their OB course throughout the semester and to use those within their story to identify specific challenges faced by the virtual team. A fundamental challenge often brought up by students is the issue of communication barriers. These often emerge because of geographical dispersion, but are often also due to temporal barriers that slow the pace of communication (when members of the same group are located in different time zones or work at different times of the day), and to relational barriers (if they belong to different social networks or cultural contexts that have different sets of expectations and knowledge bases; Hertel, Konradt, & Orlikowski, 2004; Martins, Gilson, & Maynard, 2004). The mentioned barriers prevent communication among team members and this communication tends to be mainly task-oriented.

Managing a virtual team effectively requires overcoming these communication barriers and considering problems with technology, member coordination, and motivation (Hertel, Konradt, & Orlikowski, 2004; Yoo & Alavi, 2004). These are problems that are not unfamiliar for students. Problems with their Internet connection or their lack of familiarity with the virtual interface are common reasons why students fail to participate in a particular assignment. They also face the challenge to work with individuals that cannot meet face-to-face and oftentimes have conflicting schedules that do not allow team meetings in real time. Student communication often starts being task-oriented with little or no mention to other members' participations. This little level of interaction and mutual feedback is likely to result in low levels of trust and collaboration among team members. The following is an excerpt of a team's story that describes this challenge and provides an effective solution to improve communication among team members:

> *It turned out that members were feeling a little out of touch and couldn't really relate to each other because they did not have much quality interaction. The bimonthly teleconference meeting was just what they needed to keep in touch with each other but kept the team from building cohesiveness. At the end of their 3rd meeting, Susan suggested that they should add an extra 10 minutes either before or after each meeting, once a month so they could have a few minutes just to socialize. Since then, the progress reports, emails, and memos became more frequent and rich in detail. All the team needed was a little more quality interaction.*

In the previous excerpt of their story, the students recognize the importance of team socialization and informal exchange to increase members' motivation. The effective management of virtual teams certainly involves strategies to improve mutual interaction, the establishment of common goals, and fostering the development of mutual trust, motivation, and shared understandings of the work and their context. By designing interdependent tasks, providing a context for members to get acquainted with each other, fostering members goal and role clarity, and empowering team members, virtual teams are likely to develop a stronger team identity (Brewer & Gardner, 1996; Martins, Gilson, & Maynard, 2004), a shared understanding of their work and their context (Hertel, Geister, & Konradt, 2005), improve their motivation and cohesion and develop higher levels of trust in each other (Campion, Medsker, & Higgs, 1993; Hertel, Konradt, & Orlkowski, 2004; Kirkman, Rosen, Tesluk, & Gibson, 2004).

Below we are including additional quotes that refer to OB topics, not specific to virtual teams, also brought up by teams in their stories, demonstrating that the exercise is not necessarily limited to being used in online formats of OB courses.

Cultural Barriers for Communication.

> *Martin, one of Bill's team members, is originally from England. When he heard about the upcoming teleconference, he became very eager to participate. He thought that everyone seemed very nice and capable during the virtual team meeting. The goal of the project was to develop ways to increase the market share of "Rainbow Rubbers." … Martin presented his idea at the second teleconference. He found it strange that most of the team stared at him, mouths ajar. … Bill looked at the other team members in a moment of silence, and it finally clicked. Everybody burst out laughing – Martin looking confused. It turned out Martin meant "rubber" as an eraser while the team interpreted it as contraception. People in England do not use the word "rubber" to mean a condom, but an eraser. After this confusion, the team apologized to Martin and began to help him develop new ideas for the project.*

Expectancy Theory of Motivation.

> *Soon after the meeting, the group chatted through emails discussing how unfair they thought it was to have to complete another project to get their bonuses. As they figured it, they should have gotten a bonus a long time ago. They had worked so hard to earn the extra bonus after all. Bill and Susan discussed them trying to back out of the project, or to find a way to be excluded from it. They both were having a hard time with being part of a virtual team and finding time for their other work responsibilities. When Martin got wind of their idea to quit the group, he tells them, "I've been hoping all along that the first project was going to be the last one, but all I can think of is losing my job because they'll think I don't want to put forth the extra effort of being part of this group. Now that I have worked in two successful projects, my supervisor expects me to continue! At first I started believing that if I worked this much harder I will be paid more and have her respect, now I feel that won't happen no matter how much more I do. I guess the bonus will be that much bigger if we complete this one! Here we go again!*

Attribution Biases.

> *For the past couple of weeks the team had been doing a great job sending information to each other and keeping each other updated on what was going on. Even though Bill thought that Susan had been doing a good job of implementing strategies, ideas and editing, he now noticed that Susan had started slacking off, by not participating in emails. He and Martin had also recently caught many mistakes in Susan's final documents. He began to attribute her poor performance to her lack of interest in the project, and a lack of effort because she must have rushed through material. He also had noticed that Martin was participating in each conference and was implementing great ideas. Soon Bill begins to think Martins great ideas must be due to his great concern for the project. So, Bill calls Susan and says, "I have been noticing you have not been participating enough through our daily email discussions, and I have been seeing a lot of errors in the editing. Could this be contributed to lack of interest and effort"? "As a leader in this group I am concerned about you." Susan replies, "I am being over-loaded with work, and Martin sends me his documents late which causes me to spend a lot of time trying to edit part after part, and rushing to turn them in before the deadlines. However, when Martin does turn them in to me on time I take the extra time going through the documents and make sure they're right." After Bill sent emails to both Martin and Susan, the editing and participation problems were fixed and the team was back on track.*

Grading Stories

Group portion of the grade. Student teams are graded based on their adequate application of class concepts and theories, on the extent to which they demonstrate an in-depth understanding of these concepts through the detail in their stories, and on the effectiveness of their strategy to manage these challenges (a sample grading criteria for this exercise is provided in Appendix D). This grading fosters students alternating in their writing their role as actor-narrator with the role of an analyst, who evaluates ways in which the team can find effective solutions to their problems. Clear expectations of the grading that will be used facilitates that students prepare thoroughly before they start writing their story.

Individual portion of the grade. Preventing the emergence of social loafing is a frequent concern for most faculty members when designing group assignments. In the case of distance education, the concern that some students will avoid participating in their team's narrative is stronger because the faculty has less exposure to the contributions of each student. Two alternative strategies are proposed here to prevent the emergence of social loafing by evaluating the individual contributions of all members within the group. The individual part of the grade encourages students to become intellectually involved in their discussion and collaborate in creating knowledge within their team (Oioia, 1993). Faculty who use this exercise may find one or the other more effective depending on the design of their course.

In some courses in which students typically have asynchronous discussions, the faculty may have direct access to their teams' online discussions. In these cases, discussions can be used to grade individual contributions. While many faculty use frequency of postings as a means to evaluate individual contributions towards a discussion, we propose that not only participation be evaluated but also the quality of students' contributions. With this criterion, we attend to the demonstration of theory understanding, the introduction of new perspectives into the discussion, and the use of good follow ups that build on previous postings. For instance, in a discussion that involves Goal Setting Theory, a posting in which the student contradicts a colleague's previous statement explaining the theory from a different angle, would score in four of these sections: it would add to the number of participations of that student, it would be a good follow-up (FU), show understanding of the theory (UN), and also add new perspectives to the discussion (NP). That way, such a good contribution would receive a higher grade than a posting in which the student briefly expresses agreement with what another student posted earlier, so frequent in this type of discussions. A methodic approach can reduce the time devoted to grading significantly, using the identification number assigned to each student's posting by the online discussion tool (see Figure 2 for an example of a form for tracking students' contributions). Not only this method importantly helps reduce the time devoted to grading but it also becomes a very useful tool when students request detailed feedback for their individual grade.

In other courses, the professor has no access to the discussions or no time to evaluate individual postings. In these cases, the best approach to evaluate individual contributions to a discussion is through the use of peer evaluations. Peer evaluations also allow the instructor to explore aspects of the team dynamic, which makes these evaluations an additional tool for online education. Typically, students would be evaluated on the following criteria: (1) participating in planning the story with the team; (2) contributing to discussions frequently; (3) demonstrating

adequate preparation in their postings; (4) carrying on a fair workload in the narration of the stories; (5) posting on time; (6) being supportive of others in the team; (7) encouraging and welcoming others' ideas and approaches in the team; (8) demonstrating active listening and being receptive of others' feedback; (9) managing conflict effectively (avoiding defensiveness). The average of peer evaluations for each of the criteria listed above is a very valuable feedback for OB students on their effectiveness working in virtual teams.

RESULTS

In our online OB course, 20 undergraduate students worked in teams of four in the two stories described above. Students were directed to hold their virtual conversations to collectively write their stories through online forums in WebCT. Individual contributions to these conversations were rated based on the frequency and critical thinking of these contributions. Three aspects of critical thinking were considered in the analysis of students' postings: their appropriate use of class concepts, demonstration of informed understanding of the assigned theories and concepts, and the effective management of the dynamics discussed.

We compared the different aspects of students' participation and quality of their contributions to an initial team discussion that involved discussion of questions related to theory (not part of the Storytellers Exercise) with the outcomes of students' contributions to the second Storytellers Exercise. T-tests were used to evaluate the impact of the repeated use of this exercise on the volume and quality of students' work. While t-tests showed no increase in student participation, a significant improvement was found in overall students' critical thinking from the first to the second story (see Table 3; $t = 2.51$, $\nu = 19$, $p < 0.01$).

Table 1

STUDENT QUALITY AND PARTICIPATION CHANGES THROUGH STORYTELLERS EXERCISE

	Initial discussion		Last discussion		t-test (p-value)
	Average	St. Dev.	Average	St. Dev.	
Quality	4.15	3.54	6.25	2.49	2.51 (*p < .001*)
Participation	4.05	1.50	4.1	1.25	0.16 (*p not sign*)

Additionally, discussions in both stories demonstrate high levels of involvement and commitment from students. Comments such as the following are descriptive of the tone in these discussions:

"hi ladies! Alrighty are you ready for another exciting group discussion!?"

"Hello everyone, Lets all get started early so we can do a great job again. Lets start by picking which elements would fit our team best so we can put together a good story."

"Very cool, I love it! I will put in together in a document & post it for final comments."

Frequent expressions of excitement were positive feedback for other students and seemed to increase their motivation as well as their levels of creativity. Student engagement was also highly contagious for the instructor, contributing to her motivation and enjoyment.

CONCLUSION

Virtual discussion is typically a challenge for online courses. The Storytellers Exercise is an activity that enhances student motivation and quality of participation in online discussions. Students experience the challenges of virtual team management, learn to use management practices to increase their motivation and performance, and actively reflect on their experience through storytelling to aid team's problem solving when experiencing difficulties. Although online courses typically lack rich and personal interaction between students, this exercise generates a fun and interactive context for students to learn through deep analysis of team dynamics and effective management of challenges to these dynamics.

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APPENDIX A

Guidelines For Storytellers Exercise 1

A Story Of Groupthink

This week, the discussion will be devoted to storytelling. Each team needs to narrate a unique (fictional or real) Groupthink story. You are the storytellers, the case writers. This story should fit the characteristics of the Groupthink dynamic (make sure to differentiate it from other flawed decision-making dynamics). All stories must be original and creative (creativity would be valued in this assignment), and result from the work of all team members (all members should contribute to the story).

Guidelines

1. Make sure you introduce the characters of the story and describe the action in detail, to give the reader a clear understanding of the dynamics you are describing.

2. Clearly describe the symptoms of the Groupthink:

Illusions of invulnerability
Collective rationalization of threats
Belief in the inherent morality of the group
Stereotyped perceptions of individuals external to the group
Direct pressure on those that disagree
Self-censorship of own disagreements
Emergence of self-appointed mind-guards that protect the team from members that threaten the team's cohesiveness
False sense of unanimity

APPENDIX B

Guidelines For Storytellers Exercise 2

A Virtual Team Story

In the story at the end of these guidelines, a virtual team is introduced. The story tells us just a little about them, but from your experience this semester as a virtual team and our knowledge of the material of this class, we can certainly anticipate potential problems that they might have encountered and discuss effective ways in which these problems might have been managed.

Each team in the class is assigned the narration of this team's story by completing the missing middle part. In the story, students will need to:

1. Discuss five problems encountered by the virtual team that are explained by five different theories or concepts in the field of OB (5 points for each topic). The following is a list of the broad areas of the field of OB that you may want to explore further before you begin to narrate your story.

   Personality traits
   Perception biases
   Motivation theories
   Barriers to communication
   Group formation
   Team synergy
   Virtual teams
   Power and influence tactics
   Emotional intelligence
   Leadership
   Conflict management

2. Provide a rich, detailed, and explicit discussion of each of the concepts selected for the story (10 points for each topic).

3. Propose effective ways to manage each of the challenges faced (5 points for each topic).

APPENDIX C

A Virtual Team's Incomplete Story

Bill opened the door and walked upstairs, thinking about the project Mr. White was assigning to him and the rest of the team. It certainly sounded challenging and he would have to learn how to learn how to work with a completely new technology for the project. Bill wondered about the rest of the team. He did not know any of them personally. In fact, he was just about to have his first meeting with them through a teleconference. Bill knocked the door and quickly fixed his tie before entering the conference room.

Mr. White was sitting on one side of the large table in the middle of the room. In front of the table, there was a large screen, where a young-looking woman was looking at them with a smile. "Hi, I'm Susan", she said. Bill and the other teammates introduced themselves as well. He felt very self-conscious, as this was his first teleconference. The other teammates looked very young as well; no more than a couple of years after college. Bill could not help thinking that the company had selected him for his years of experience, probably expecting him to take a leadership role in the team.

(Middle Part Of The Story: To Be Completed)

Susan and Bill had their first face-to-face meeting three years later, in Chicago. During lunch at the cafeteria, Susan remembered: "Boy that was a hard project!" Bill agreed. Technical

difficulties ended up being nothing compared to the interpersonal issues the team had to deal with. “Remember the day Martin copied all of us that email for his girlfriend?” Both laughed remembering the anecdote. They agreed that, after all, it had been a great learning experience for them. After a couple of more inside jokes, they closed the matter; they had other projects to discuss.

APPENDIX D

Grading Forms

Group Contributions to Team Discussion			
Theories/Concepts Used	Out of	Grade	Feedback
Theory/Concept 1:			
Fits the description in the story	5		
Thorough understanding	10		
Effectively managed	5		
Theory/Concept 2:			
Fits the description in the story	5		
Thorough understanding	10		
Effectively managed	5		
Theory/Concept 3:			
Fits the description in the story	5		
Thorough understanding	10		
Effectively managed	5		
Theory/Concept 4:			
Fits the description in the story	5		
Thorough understanding	10		
Effectively managed	5		
Theory/Concept 5:			
Fits the description in the story	5		
Thorough understanding	10		
Effectively managed	5		
TOTAL GRADE	**100**		

Individual Contributions to Team Discussion						
Student name	*Quality*			*Participation*	*Errors*	*Total*
Group 1	FU	UN	NP			
Group 2	FU	UN	NP			
Group 3	FU	UN	NP			
Group 4	FU	UN	NP			

APPROACHES TO STUDYING AND THE UNDERGRADUATE BUSINESS STUDENT: A QUALITATIVE ASSESSMENT

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ABSTRACT

Researchers in higher education have for several decades sought to determine the various approaches to studying chosen by university students. A well-established body of research now exists, with continued efforts to refine the characterization, measurement, and associated drivers of the student's choice(s) of possible study methods and tactics. More recently, business educators have drawn upon those frameworks to explore how their students go about completing the requirements of their coursework. As a result, over the past decade progress has been made toward our understanding of this important issue. However, the source of these publications has generally been confined to the accounting discipline, with students of that major serving as study participants. What is needed is a broader look at how business students from all the various disciplines approach their studies so that business educators may also gain insights into 1) what sort of differences exist among students from the major fields of study and 2) how our business majors' patterns of studying differ from students across the university. As a starting point for addressing those two issues, this paper reports the results of depth interviews with upper-level business majors, in which participants describe the what, how, and why of their own approaches to studying. Ample evidence is found for these students' reliance on three established study orientations – deep, strategic, and surface – along with three additional factors that influence choice of study approach, those of academic self-efficacy, time spent, and general motivation. The paper concludes by offering extensive suggestions for future research.

Keywords: approaches to studying, approaches to learning, deep approach, strategic approach, surface approach

INTRODUCTION

In higher education, students spend less time in the classroom than during their secondary school days, yet are responsible for greater amounts of material covered at a more rapid pace. Among researchers in higher education, much effort has been devoted to determining factors that might influence the university student's approach to this learning experience. For example, it seems intuitive that time spent in study and preparation outside of class would directly influence academic achievement. However, according to Noonis and Hudson (2006), such an effect is not independent, but interacts with motivation and ability. Evidence also exists that reported weekly study time (during senior year of high school) by entering college freshmen, while rising slightly in recent years, saw a steady decline for nearly two decades (Higher Education Research Institute, 2003; 2012; Noonis & Hudson, 2006). When asked this question in 1987, 47.0% of the roughly 276,000 entering freshmen surveyed claimed spending six or more hours per week engaged in

study outside of class. That figure steadily declined each year to reach 34.0% in the 2003 report, and stood at 38.4% in the 2012 survey (of 192,912 entering freshmen). Students today engage in added diversions to their educational efforts via the time consumers of social media, video games, Web surfing, and rapid-fire texting, made more readily available by the growing preponderance of smart phone and tablet usage. This, too, is combined with the steady increase in the percentage of college students who work either full-time or part-time during the academic year (Noonis & Hudson, 2006).

These trends all contribute to the intriguing question regarding how our students spend their study time and by what manner it should best be managed to effect learning and academic success. Hadwin and Winne (1996) charged higher education institutions to "provide means for students to develop adaptable strategies with which to pursue knowledge and solve problems during and after postsecondary experiences," (p. 693). They recommended that positive findings on studying and learning be incorporated into the class experience and not be confined to universities' study skills programs (e.g., as demonstrated in English, Luckett, & Mladenovic, 2004; Hall, Ramsay, & Raven, 2004). This supports the greater direct incorporation of specific study skills into a particular learning context. For example, through specific changes in the learning environment, Hall et al. (2004) detected a small, but significant increase in first-year accounting students' use of a deep learning approach and a small, but also significant, reduction in reliance on surface learning.

Among business educators, there has been growing acknowledgement that to improve the quality of student learning, there must first be a better understanding of *how* our students learn (Byrne, Flood, & Willis, 2002; Byrne & Willis, 2009). Because learning is relational, that is, dependent upon the way a particular student relates to the "learning context" (Prosser & Trigwell, 1999; Ramsden, 1987), a whole range of factors will affect a student's approach to studying and learning. Among these are the student's prior learning experiences and orientations. The learning context, which includes both the nature of the course and the teaching within the course (English et al. 2004), also encompasses factors controllable by educators, such as teaching style, the nature of curriculum and course content, assessment methods, and the demands of particular tasks (Ramsden, 1992). As Richardson (2010) states, "In short, perceptions of the academic context are a primary determinant of approaches to studying," (p. 537).

Evidence also exists that the different academic disciplines cultivate different learning environments resulting in student's developing a variety of study approaches across those disciplines (Entwistle & Ramsden, 1983; Meyer & Eley, 1999). For example, on a general level a contrast has been found between students' approaches in the arts versus the sciences (Ramsden & Entwistle, 1981).[1] Specifically, Watkins and Hattie (1981) found that:

> *"Arts students were the most likely to show intrinsic interest in their course [of study] and to adopt a deep-level approach to their work. Scientific students tended to be relatively more motivated by vocational concerns and to adopt surface-level reproductive study methods," (p. 392, bracketed words added).*

A body of literature regarding students' approaches to studying and learning has begun to develop within business education, but is limited nearly solely within the accounting discipline. For the past decade, our colleagues in accounting have produced several publications in their

leading education journals. Such articles, for example, have explored approaches to learning among "introductory-course" students (e.g., Elias, 2005; Hall, Ramsay, & Raven, 2004), majors in several countries outside the U.S. and U.K. (Byrne et al., 2002; Teixeira, Gomes, & Borges, 2013), and as a comparison between the genders (Paver & Gammie, 2005). However, among business educators in the other major disciplines, namely management, marketing, finance, and economics, the exploration of students' approaches to learning remains a vastly under-researched topic. Thus, much room for exploration particularly within the several disciplines remains (Lucas, 2001). Moreover, differences in learning approaches are likely to exist among students in the various business disciplines.

While our colleagues in accounting education are to be lauded for their research efforts in this area, studies conducted are predominantly quantitative in nature (for exceptions, see Jackling, 2005; Lucas, 2001), relying primarily on well-accepted survey batteries produced over the past three decades or so by higher education researchers. While these studies have provided much insight into the question of such students' approaches to learning, what is being overlooked is much of the underlying substance behind their study and learning activities, the self-perceived outcomes of their efforts, and the effects of it all on a more personal level. Entering freshmen increasingly report feeling frequently overwhelmed "by all I had to do" during senior year of high school. That percentage has risen steadily from 18.0% of respondents in 1985 to 30.4% in 2012 (Higher Education Research Institute, 2012). (It should be noted that this most recent survey shows this response to be more than twice as great among females as among males.) In all likelihood, such feelings affect a high percentage of college students as they move through their degree program. It is of interest to determine what role students' approaches to their own learning plays in those feelings. The choices that business students make regarding their approaches to learning have results that follow them throughout their higher-education experience and beyond. As students are asked to describe the specific activities in which they engage to complete their assigned course tasks, greater insights into the motivations and purposes behind those choices would be revealed. As our students' learning contexts evolve and the demands on their time increase, whether brought on by a greater need to work during the academic year or the increased diversions engaged in generally, what impacts could be detected in how they go about choosing ways to prepare and complete those tasks required of them? What attributions might be attached to self-perceptions of success or failure? Is there strong evidence of the employment of the several study strategies delineated in the generally-accepted batteries of study approaches?

This article then undertakes, via depth interviewing of upper-level business majors, to have students describe in their own words their approaches to coursework and exam preparation, namely the how, what, and why of their studying. By this use of an exploratory approach to obtain a more personal account of students' approaches to learning, we do find evidence of definitive employment of well-known study strategies. What is additionally gained is a more revealing look at the participants' specific activities related to studying and their indications of how well these tools and methods are helping them to achieve their goals, both in the near-term and beyond. Prior to reporting the findings of the depth interviews conducted with upper-level business majors, we review the seminal study-approaches literature and its evolution over the past several decades.

FOUNDATIONS OF APPROACHES TO STUDYING

As might be expected, researchers of higher education issues give great consideration to examining the study habits of university-level students. For several decades, concerns have been expressed over the level of study skills brought from high school by the new undergraduate (Thomas, Bol, & Warkentin, 1991), the time college students devote to their studies (e.g., Britton & Tesser, 1991; Dickinson & O'Connell, 1990; Leeming, 1997; Noonis & Hudson, 2006), and the study strategy choices made by students when faced with various assignments, exams, etc. (Prosser & Trigwell, 1990; Scouller, 1998; Wade, Trathen, & Schraw, 1990; Wood, Motz, & Willoughby, 1998). Institutions of higher learning have long acknowledged that the transition from high school to college is a difficult one for the new undergraduate. Schools typically attempt to socialize each new entering class via extensive orientation and mentoring programs, including study instruction. In a comprehensive review conducted early on, Kirschenbaum and Perri (1982) determined that inconsistent empirical findings called into question whether participation in study skills training leads to marked improvement in students' academic achievement. Jones, Slate, and Marini (1995) offered four factors that "may explain why study skills courses are often unsuccessful" (p. 55): their (the courses') overly general nature, their failure to deal with attitudinal variables, the self-selection of stronger students into these largely volunteer programs, and students' insufficient devotion of time to make use of any new skills acquired. These observations support the more recent call for greater direct incorporation of specific study skills to a particular learning context, as discussed earlier (e.g., Hall et al., 2004). Commensurate with these concerns, researchers in higher education embarked on a course of investigation to find answers to several key questions.

1) *In what ways should approaches to studying be defined, categorized, measured, etc. (as these constitute the skill set upon which students will draw to meet the challenges of their school work)?*[2]

2) *In combination with accepted inventories of study skills/approaches, once established, what factors emerge that influence and determine the approaches to studying most often called upon by the individual student and by various groups (defined by some descriptive characteristic)?*

STUDENTS' APPROACHES TO STUDYING

Since the seminal work of Entwistle and Ramsden (1983), the quest to develop typologies of study approaches and associated measures has been fruitful, and continues to evolve. Such batteries are particularly important, because in empirical investigations they are generally treated as criterion variables in models of study skill behavior. Moreover, they may serve as indicators of more specific strengths and weaknesses of individual students (Jones et al., 1995). The basis for measures attempting to capture approaches to studying rests largely on an early contribution to research in higher education from Marton and Säljö (1976, cited in Richardson, 1990). They identified two different levels of processing, which today remain at the heart of most published inventories of student study strategies. As Richardson (p. 155) quotes:

> "In the case of *surface-level processing* the student directs his attention towards learning the text itself (*the sign*), i.e., he has a 'reproductive' conception of learning which means that he is more or less forced to keep to a rote-learning strategy. In the case of *deep-level processing*, on the other hand, the student is directed towards the intentional content of the learning material (*what is signified*), i.e., he is directed towards comprehending what the author wants to say about, for instance, a certain scientific problem or principle" (Marton and Säljö, pp. 7-8, italics appear in Richardson).

These two paths of student learning are typically viewed as mutually exclusive ways of processing learning material, each employing a distinct strategy and motive (Scouller & Prosser, 1994). Each of these two processing types remains at the core of the most well-known conceptualizations of the varied manner by which students engage in studying. Students who adopt a deep approach are viewed as taking an active role and see their learning as something they themselves did. Those who adopt a surface approach, however, are regarded as taking a passive role, instead treating learning as something that just happens to them (Marton, 1976, as cited in Richardson, 2010). The major measures of study approaches found in the higher education literature are shown in Table 1. The table details the source(s) of each measure, the number of items contained, along with the scale employed and its dimensionality, revealed via scale assessment activities. Each of these instruments has seen extensive use in recent, higher education research and in the nascent literature in business education research.

Emerging over the past decade as an acknowledged third level of processing is the *strategic* approach. Entwistle and Ramsden's (1983) original Approaches to Studying Inventory (ASI) contained four study orientations. Along with the meaning and reproducing orientations, the ASI also exhibited two additional ones, those of achieving and styles & pathologies (also known as a "non-academic" orientation). In later use, issues arose regarding the robustness of the subscales comprising these latter two orientations (Richardson, 1990; 1995). The non-academic orientation, in particular, has not "survived" revisions to the ASI. Initially, the strategic approach, efficiently described as "deep or surface as necessary" (Entwistle & Ramsden, 1983, p. 200), was operationalized as one of the achieving orientation's four subscales. Biggs's Study Process Questionnaire (1987a; 1987b), comprised of three study approaches, also includes an achieving orientation (along with deep and surface). Due to the large number of items in the ASI (64, with 16 subscales) and the questionable psychometric properties of the subscales associated with the achieving and styles & pathologies orientations, shortened versions of the scale have been developed, tested, and employed. Of these, receiving the most attention and use until recently had been the Short Version of the ASI (Richardson, 1990). Comprised of 32 items in eight subscales taken directly from the original ASI, second-order factor analysis of this shortened scale consistently retrieves the two most-commonly cited study orientations of *meaning* and *reproducing*, akin to Marton and Säljö's deep-level processing and surface-level processing, respectively (Hayes, King, & Richardson, 1997; Hayes & Richardson, 1995; Richardson, 1995; 2005; 2006).

One of the original creators of the ASI also maintained an interest in refining its psychometric qualities. Those efforts resulted in the Revised Approaches to Studying Inventory (RASI) (Entwistle, Tait, & McCune, 2000), comprised of 52 items with 13 subscales, totals exceeding those of the often-used ASI. Second-order factor analysis consistently results in three

study orientations: deep, surface, and strategic. Richardson adopted the Entwistle et al. RASI with his 2005 publication (cited in the prior paragraph) and continues to employ it almost exclusively in his continued investigations of the study habits of varied segments of student populations (e.g., Richardson, 2006; 2010; 2012). The consensus among these leading scholars of higher education research on studying is that the recognition of a strategy orientation provides a more complete picture of the choices university students draw upon when approaching their learning. Examples of subscales subsumed within the strategic approach include organising for study, time management, achievement as exhibited by high marks/grades, alertness to instructor methods of evaluation, and diligence in monitoring effective performance (i.e., in terms of high marks/grades). The RASI has been employed in several studies of accounting students' study approaches (Byrne et al., 2002; Paver & Gammie, 2005) as has, to a lesser degree, Biggs's Study Process Questionnaire (Davidson, 2002).

DETERMINANTS OF APPROACHES TO STUDYING

As pointed out earlier, once an inventory of study skills, strategies, or orientations is established, an inseparable issue emerges, namely, what factors most likely influence students' chosen approaches to studying? The same student may very well exhibit different approaches to studying dependent upon the situational context. Among such situational influences are students' perceptions of course content, the demands of particular tasks and of different courses, the quality of the teaching, and the nature of course/program assessment (Richardson, 2010). While these are considered primary determinants of approaches to studying, they do not tell the entire story. Even when accounting for variations in students' perceptions of their individual courses, they may differ significantly in their chosen study approaches. It is not unusual for two students with largely similar perceptions of the same course and instructor to adopt different approaches to studying.

Researchers have tested numerous variables as drivers or moderators of the specific study strategies students select when attempting to meet their course obligations. As might be expected, not all variables proposed exhibit a relationship to strategy selection or to other downstream outcomes such as course grade or GPA. Table 2 shows a collection of such variables from several published sources. (Constructs that significantly influenced the criterion variable in a particular study are indicated by a footnote.) The variables appear to fall into one of three broad categories and are grouped in the exhibit as such: descriptive/demographic, individual differences (e.g., personality, attitudinal, motivational), and prior qualifications/achievement. The table also lists the criterion variables of interest in each study cited. In several cases (e.g., Britton & Tesser, 1991), a performance measure (i.e., GPA) served as the sole dependent measure or, as in the case of Horn, Bruning, Schraw, Curry, and Katkanant (1993), in combination with a measure of study strategy selection. The three-category structure of Table 2 reveals that not each category is represented in each study. However, when considered in combination, there exists much depth to the array of variables tested to date. A particular challenge is to select a parsimonious set of variables as potential determinants of students' approaches to studying. Prior to ascertaining possible designs for such continued descriptive-driven, quantitative-based research, next described are the results of an exploratory study of business students' study habits, motivations, and strategies.

AN EXPLORATORY QUALITATIVE STUDY

Using semi-structured depth interviews, upper-level business students were asked to describe the what, where, and how of their study efforts. Interviewers also prompted these students to discuss their feelings about studying and their motivations to do it. The resulting data were then analyzed for recurring ideas, perceptions, and patterns in line with the study approaches discussed in the earlier literature review of studying research in higher education. These findings are summarized in the following pages and are intended to convey the major activities, processes, and perspectives captured in the interviews.

METHOD

This qualitative study represents a portion of a research project conducted by one section of a Consumer Behavior class recently taught by the author. The purpose of the project was to explore the meaning of studying and the associated processes used to perform its practice by students in the university's College of Business. Over several class meetings, students received instruction and training in the depth interview technique. Through several iterations, the class and the instructor came to agreement on a semi-structured script to serve as a guide during the interview process.

To construct a sample, each group was to select only junior and senior business majors as subjects. To help them achieve a certain comfort level, the students were encouraged to choose friends as interviewees, but the use of roommates was not permitted. The interviews were audio recorded and then subsequently transcribed by group members. Nine teams were responsible for completing two interviews each, yielding a total of 18 interviews. McCracken (1988) has suggested that a sample of 12 respondents is sufficient for generating themes in qualitative work of this nature. These 18 interviews resulted in approximately 100 double-spaced pages of raw data for analysis.[3]

The approach to analyzing these data drew from the set of data manipulation operations presented by Spiggle (1994), which provides a framework for making inferences about qualitative data. Of the suggested set of procedures defined by Spiggle, this analysis ultimately utilized categorization, abstraction, comparison, and dimensionalization. After multiple readings of the interviews, an initial list of recurring thoughts, topics, and perceptions (the foundation for categories) was constructed. For the more specific purposes of this article, passages that provided evidence of a study habit, strategy, and/or orientation (as shown in Table 1) or that expressed attitudes, motivations, etc. (as shown in Table 2), were selected for presentation here. The comments were organized into several categories discussed next. These categories are not necessarily mutually exclusive and several of the comments reproduced here could support more than one category.

STUDENT PERCEPTIONS OF THEIR OWN APPROACHES TO STUDYING

The interviews conducted revealed evidence of the primary approaches to studying compiled in Table 1. For example, we find frequent expression of reproductive/surface approaches

to studying, which also have been termed ineffective study behaviors (Jones et al., 1995) and lower-order study strategies (Nolen & Haladyna, 1990). Also, comments were made by individual interviewees regarding academic self-efficacy, short-range planning, and time attitudes, variables shown to influence strategy selection and scholastic achievement. We now proceed to a presentation of the common themes resulting from the analysis procedure just described. Quotations from the data are used abundantly to illustrate the findings.

Reproducing versus meaning orientations. Entwistle and Ramsden (1983; Ramsden & Entwistle, 1981) subsumed surface processing and deep processing into the broader learning categories of reproducing orientation and meaning orientation, respectively. Several respondents reported utilizing study approaches associated with the former.

> *"I wouldn't really say that I have a technique. Like I said, I'm pretty much haphazard…I just look at the stuff and hope that I'll remember it enough to pass the test." (Caroline, 21, Junior, Marketing)*

> "[My studying style] depends on what the exam might be on. Usually my teachers clue us in on what is mostly on the test. I never really miss class, but I fall behind in reading, so I tend to concentrate on the book while I study, since it is new to me." (Jen, 21, Senior, Finance)

Reliance on reproductive approaches to studying was often associated with a perceived time constraint. One might infer that students like Sue (21, Senior, Management) seem to rely on less effective study methods, because sufficient time to develop practices associated with a meaning orientation is never allotted.

> *"I think I need to study more. A lot of times it feels like you study too much and you get sick of the information. If I tried new ways of studying the same information, I might be a little more productive, 'cause I always get into the test after studying for hours and feel, like man, I should have studied more, or studied certain things more."*

One of the most common tactics expressed regarding study styles and methods involves the intense period of study engaged in the day before an exam. Commonly referred to as *cramming* (McIntyre & Munson, 2008), such behavior is not isolated to the less diligent student, but is found to be a conscious, planned activity by the thorough, committed studier, as well. Chris (21, Senior, Computer Information Systems), who studies daily, with six to eight hours devoted to preparation for one exam, relegates that large block of time to one day.

> *"I think I am a special case, in that I feel I can cram really, really well the night before. If I cram and have not reviewed the material at all before, then I definitely won't do as well. If I scan the material, or review a few days before, then when I cram, I usually will do really well."*

The reader's first assumption may be that such behavior owes to procrastination or disinterest. While there is evidence of that in these data, particularly among less committed students, another factor is at work, namely fear of forgetting. One student expressed apprehension at beginning exam preparation earlier than two days prior to test time, because she tends to forget

the material if she studies it "too early." Students often see cramming the night before as their best chance to retain information needed to do well on an exam.

> *"I do better when I cram…'Cause the stuff is still fresh in my mind…unless it's accounting and that takes me like ten days." (Tissa, 20, Junior, Accounting)*

Cramming invokes the *repetition* strategy of studying, found by Wood et al. (1998) to be the most common study strategy employed by a sample of university and high school students. It is associated with the surface approach to learning, the user of which emphasizes reproduction and rote recall (Scouller & Prosser, 1994).

Few respondents exhibited study behaviors associated with deeper information processing, and such activities were not expressed with nearly the frequency of actions associated with surface-level processing. Several students related attempts to make a transition away from more surface methods employed in high school or early on in college, to methods more indicative of a meaning orientation. For those, the reason often lies with greater interest generated by moving into upper-level classes in their chosen field of study.

> *"I studied for half an hour a night [in high school]. They gave a lot of homework…I just didn't do a lot of it. I knew I had to do the homework that had to be turned in and I didn't do the other work because I didn't find a lot of interest in it. Now that I'm in college I'm trying to do more studying for my personal enrichment. I think I am [retaining more knowledge in college now] because I'm much more interested in what I'm learning. I find it pertinent to what I want to do with my life." (Amy, 21, Junior, Accounting)*

In business disciplines, the structure of curriculum often reflects the "building block" nature to comprehending foundational theories, techniques, frameworks, etc. This implies that to foster understanding along the way, students need to acknowledge the necessary interrelatedness of material as presented in their chosen discipline and then approach their learning accordingly. In this vein, Walter (22, Senior, Finance) speaks of "keeping up." Ultimately, his view of studying for courses in his major is reflective of *relating ideas*, a subscale of the deep approach orientation, part of the three-factor configuration resulting from studies employing the RASI (e.g., Richardson, 2005; 2006).

> *"Since I'm a finance major there is a lot of busy study work that takes place…It's almost like having a full time job just keeping up with the load of things you need to know and how much the next steps in every chapter build on what you just learned...Most of the material builds on the last, so you really have to do more than just memorize for the next test. I can't remember everything that we go over, but knowing the traditional concepts is a must and then [next] comes learning the techniques…"*

This building block view of learning, also indicative of deeper processing via relating ideas, was also expressed by Nichole (22, Senior, International Finance), who despite very high grades in high school, claims not to have had "any study habits" before coming to the university. After "messing up really bad" freshman year, she has since experienced more satisfying results owing to her more diligent, long-view of learning. When asked whether she preferred "long- or short-term studying," she replied:

"I definitely prefer long-term studying because it makes it a lot easier when it actually comes down to knowing these things. With long-term studying you pick up things gradually; you add one thing to another, sort of like building blocks. Like when you study one thing from one day, that is one building block and the second from a second day, you put that one on top and another on the third day. All of a sudden you have all three boxes right on top of each other and you have to know all of them at the same time. You can put one on top of the other, like, day-by-day, rather than to have to learn them all at one time."

One student expressed a strong desire to engage in deeper processing in her quest to learn, but actually found her choice of pursuing a business degree as a roadblock to achieving a meaning orientation.

"I enjoy studying things that are more abstract. I hate memorizing formulas and facts and stuff like that. I should have been an English major, because stuff that is abstract, like reading a novel and analyzing it, I can do that really well. I like that much better, because it's more…you think about it more, instead of acting like a robot and just sending out information." (Caroline, 21, Junior, Marketing)

Becky (23, Senior, International Business) expressed a similar sentiment, supporting, along with Caroline, the notion that interest and liking in a student's chosen major field of study may influence that individual's studying orientation.

"I decided I want nothing to do with my major. I don't like International Business or Finance at all anymore. I mean I think it's important, but it isn't at all what I want to do with my life. If I was in music and theatre and fashion design, then I would be getting all As and spending all my time studying, but why waste my time studying for classes now if it isn't at all what I want to pursue? That's definitely affected my study habits the most. When you like something then you spend time on it, and when you don't, then you just really don't care."

Strategic approach. As discussed earlier, the past decade has seen more attention given to the conceptualization of study approaches as consisting of three general types, rather than two, with greater acknowledgement of a strategic orientation. This view of studying as primarily geared toward obtaining the highest marks or grades is pervasive in the interview data. The purpose of studying to achieve good grades is discussed a few sections hence, within the broader context of general motivation. Here, we review several components associated with a strategic approach. Of the four component subscales to the strategic approach dimension of the RASI (Entwistle et al., 2000), two in particular – *organised studying* and *time management* – were spoken of by nearly two-thirds of the interview respondents.

For example, those who stay on top of their assigned reading often move on to a "home note-making tool" that might involve the creation of flashcards or of outlines and notes from chapters in the text. For these individuals, the act itself of writing and re-writing material, terms, etc., and condensing notes, a study strategy collectively known as *summarizing*, facilitates learning (Wood et al., 1998).

"I try and outline everything with a highlighter and then I'll just type out those notes. And then I'll study the notes I made from the highlighted material. I'll just paraphrase everything that I've read...The way I look at it is, I learn it once by reading it, and highlighting keeps my attention focused on the material. That's the only reason I really have to highlight, so I don't wander. Typing gets me to see it again and read it again.

The first time reading my notes, it's like the third time I've actually read it." (Erik, 21, Junior, Computer Information Systems)

Erik's actions also fall under the *organizing/summarizing* category of study strategies found by Horn et al. (1993), which they regarded as a "higher-order" strategy.

Before putting to use these various, information-organizing/summarizing tools, such as recopied notes, text chapter outlines, and terminology/definition flash cards, several interviewees noted the critical step of creating the right environment for study. For some, this entails being in the right space, for example, the quiet bedroom in one's apartment or a certain corner of the library. Several students expressed as paramount the need to have an orderly and clutter-free desk at which to work, adorned only with those items essential to engage in an efficient period of study.

"I like to have a very clean desk. I like to have all of my things spread out before…all my notes, books, calculator, etc…all out before me so I won't have to be interrupted by going and getting something in the middle of it. I like writing my balance sheets on graph paper so that they are neat and in a straight line. I like getting more than one pencil out and have them all sharpened before I begin." (Amy, 21, Junior, Accounting)

Time management, also a component of a strategic orientation, was discussed frequently by respondents. Britton and Tesser (1991) examined the effects of time-management practices on students' cumulative GPAs. Three dimensions emerged from their time-management measure: short-range planning, time attitudes, and long-range planning. While subjects' comments do not necessarily fit exclusively into one dimension, there are data that relate well to each. Several respondents spoke of an evolution in their study habits since freshman year, particularly in terms of planning their days better with respect to study activity.

"I used to study the night before, like in high school, and I expected to get the same grades that I got in high school and I didn't get them. I noticed a big difference the beginning of this year, my junior year, just to take more time to study and do it in advance...I look at my week on Sunday night and plan out when I will have time to study, so it's in my mind. Sometimes I will write it down and study from a certain time to a certain time. I usually know in advance when I am going to study." (Amy, 21, Junior, Marketing)

"I think they [my study habits] have definitely changed since freshman year. I have realized that…I have to leave more time for test preparation. I try really hard to read along with the class, but still fall behind. I have learned through the years, though, better ways to study and now know that it's important for me to put in the time, especially for my major classes, in order to get better grades." (Jen, 21, Senior, Finance)

Nichole, quoted earlier as an individual who engages in the deep processing activity of relating ideas, also manages time very strictly, particularly in preparation for final exams, for which she begins studying weeks in advance.

"Usually for a final exam, the latest that I start studying is about two or three weeks before. And I study that way because I have two jobs; to manage my time, I have a lot more restrictions. Thus, I have to manage my time efficiently."

One can sense the frustration expressed by subjects who do not feel in charge of their own time and regard their time-management practices as insufficient. Such perceptions come under the *time attitudes* dimension of time management.

> *"I definitely don't feel prepared or comfortable [just prior to an exam], but I calm myself down by just telling myself it's too late to worry about it. I always promise myself I will give way more time for reading for the next test, too. Now that I have only one month left [before graduation], I am determined to not wait till the night before to study and read for all my tests…it's just that I never leave enough time to study like I want to." (Becky, 23, Senior, International Management)*

ADDITIONAL VARIABLES INFLUENCING CHOICE OF STUDY APPROACH

Academic self-efficacy. Self-efficacy is the behavioral confidence individuals have in their ability to perform certain activities (Bandura, 1986; Horn et al., 1993). Such confidence is a result of and influences achievement. In a path model of classroom performance, Horn et al. (1993) found a positive relationship between academic self-efficacy and the choice to use the organizing/summarizing study strategy (Nolen & Haladyna, 1990), which in turn related positively to the performance measure of aggregate exam scores for a particular class. Several respondents expressed low confidence in their own ability to get positive results from study efforts, supporting the notion that while success builds success in the classroom, feelings of repeated failure seriously erode confidence. Becky (23, Senior, International Business), a strong achiever in high school whose present GPA barely surpasses graduation requirements, expresses her feeling of helplessness.

> *"It's weird, but once you screw up and you know you have a horrible GPA, then you have no motivation to study, which is where I am at now, so I guess my GPA in a way was my motivating factor before. My low GPA now is like de-motivating me, if that makes sense. I always did so great in high school and always got As and I know that if I applied myself in the same way here I could be getting better grades, but it's like 'Why bother?'*

Time spent. Respondents readily gave an indication of how much time they spend engaged in study activity. Interestingly, for several who professed that studying was a regular activity, two hours per day on a five-days per week schedule served as the baseline commitment, that is, the minimum time given over to general "keeping up" and class preparation.

> *"I try to study around two hours a day Monday through Friday." (Charlotte, Junior, 21, International Business)*

> *"I would say I put in at least two hours a night on a night of catching up when I don't have much to do." (Chris, 21, Senior, Computer Information Systems)*

As academics, likely accustomed to much study time during our own student days, we might ask, "How can this be enough?" A survey of undergraduates conducted by Schuman et al. (1985, cited in Thomas et al., 1991) found a median time spent studying of 3.8 hours per day.

However, as cited earlier, average study time among entering freshmen has fallen considerably since the mid-1980s. Yet several subjects expressed pride toward their regular, albeit limited, study time commitment.

> *"Ever since then [referring to major grade improvement achieved second semester freshman year], I've tried to maintain really good study habits and study at least two hours out of every day, including Saturdays and Sundays." (Nichole, 22, Senior, International Finance)*

> *"Yes, I think I study a pretty good amount of time for a college student, about five to six hours a week, and sometimes more on weekends." (Wayne, 20, Junior, Computer Information Systems)*

There is evidence in the interview data, however, that this baseline two-hour per day preparation time is not inclusive of test preparation. Students appear to compartmentalize time spent for intensive test preparation and consider it as additional to their regular, daily study time, the latter of which is often referred to as keeping up or, lamentably, as "busy work." For example, Chris (21, Senior, Computer Information Systems) ratchets things up prior to an upcoming exam: "…on test days, I put in at least six to eight hours for one test." Drew (20, Junior, Finance) also follows this practice. "[The day before a test] I would probably study between six to eight hours just going over the material as many times as I could." Beyond this, times range from the perspective that one need not work unless absolutely necessary to "however long it takes." Time spent on studying is not necessarily efficiently spent. Respondents expressed instances when it repeatedly seems that there just isn't enough time to study to the extent they desire.

General Motivation. As Jones et al. (1995) noted, research into study habits needs to account for the individual differences of students. As shown in Table 2, several such variables have been proposed to have an effect on students' study approaches. Horn et al. (1993) regard motivation as the basis for a key set of variables affecting academic achievement. The question arises, "What compels students to devote hours of time to the task of studying?" Individuals often possess multiple motives for a single behavioral act. The business students interviewed elicited a variety of personal, intrinsic motives, among them learning, personal enrichment, satisfaction, and what one respondent termed "academic fulfillment."

Respondents reported a chain-like sequence of factors that motivate study activity. The initial link in the chain revolves around the pursuit of "good grades," (characteristic of the strategic orientation). However, this was rarely expressed as solely an end goal. For those few interviewees whose expressed motivation begins and ends with grades, the journey as a business major at the university has been a disappointing one.

> *"I study to get a good grade, although it doesn't work. My grades are not the greatest…It seems like no matter what I do, I still don't get good grades." (Caroline, 21, Junior, Marketing)*

Others link the pursuit of good grades to other downstream motives, among them a good job, competence on that job, and an enhanced lifestyle after college. There is a connection between these goals and students' present perceptions of the relative importance or relevance of their coursework. We see evidence of a stark perspective that treats business classes as the sole source of "stuff I can use later on." This does seem to be tempered, however, with a genuine interest level

in business subjects over other courses. Business students find motivation in the interest generated within them when they "get into their majors." This ties-in with the practice of dedicating a greater proportion of study time to subjects in the major field. However, it is at times reflective of the attitude that subjects and courses outside of business serve little purpose.

> *"I like my major a lot, so I study to learn and get good grades, because both are important, but in classes I don't care about like Anthropology or something, I don't think as much about the learning…" (Jen, 21, Senior, Finance)*

A comprehensive comment by Amy (21, Junior, Marketing), sums up the notion of linked and multiple motives and the distinction drawn between business and non-business classes.

> *"It motivates me to study to get good grades because I know what good grades will lead to – getting a good job, make my parents happy (but my parents have never put pressure on me or anything like that). So I have always tried very hard. The final outcome will pay off, plus I know with my business classes I am more motivated to study and do well, because I'll use the knowledge later down the road. It's harder to motivate yourself to study for a class you know that the information you'll never use again [sic]. It's just a grade you're getting, but more for my business classes, I like to pay attention and learn the stuff because I know it will be more helpful and it's the material I am more interested in."*

FUTURE RESEARCH DIRECTIONS: FACTORS INFLUENCING BUSINESS STUDENTS' STUDYING CHARACTERISTICS AND DIFFERENCES AMONG STUDENTS AROUND THE UNIVERSITY

The material presented thus far provides numerous avenues for continued empirical investigation into business students' approaches to studying. What follows is a brief description of proposed analyses that may deepen our understanding of business students' study orientations, habits, and strategy choices. Constructs and measures under primary consideration are depicted in Figure 1. This is not meant to detail comprehensive, fully-formed study designs, but instead is intended to provide a broad look at several possible investigations that might enrich our understanding of this issue.

Scope of Investigation

One would expect that significant differences among study strategy styles exist, particularly between the set of quantitatively "softer" subject areas (e.g., marketing, management, international business) and the quantitatively "harder" ones (e.g., accounting, finance, computer information systems). Early on, Entwistle and Ramsden (1983) contended that "approaches to studying vary systematically between subject areas" (p. 181). The discipline upon which a student primarily focuses plays a role in influencing his/her central study strategy (Nulty & Barrett, 1996). For business students, such variation may arise due to several factors, such as the nature of the material concentrated upon in a given subject area. Research has shown, for example, that marketing majors perceive themselves to possess lesser quantitative skills than nonmarketing majors (Newell, Titus, & West, 1996). Evidence exists that there are profound differences in pre-

existing (end of high school) qualifications among students in the various business majors. Aggarwal, Vaidyanathan, and Rochford (2007) used high school GPA and performance on standardized college entrance tests (SAT; ACT) to determine differences among majors in terms of their quantitative skills, language skills, and overall preparedness for college. Incoming accounting and finance majors roundly outperformed management and marketing majors along these criteria. The link between student performance and choice of study strategies has shown that lower performance on certain tasks is related to overreliance on surface approaches (e.g., English et al. 2004; Scouller, 1998). It would be beneficial to learn what study patterns business students in the various majors exhibit.

Of additional interest would be an examination of differences among students in different divisions of the university, namely business, the liberal arts, and the sciences. While the higher education literature on the types of study strategies employed by students is a well-developed one, conspicuously absent is the inclusion of business students as study participants in general and as a primary target group for investigation in particular. Study participants are almost exclusively limited to those majoring in the liberal arts and to a lesser extent, the sciences. Only more recently have business educators taken up this issue, and such investigations have been primarily limited to students of accounting. Essentially, we have little or no indication how groups of nonbusiness students may differ from students of business with regard to their approaches to studying. Intuitively, one might expect liberal arts students to engage more frequently than others in study behaviors associated with a meaning approach. Reading large amounts of varied materials along with a high degree of writing assignments likely make it necessary for such students to interrelate broad concepts and ideas frequently. On the other hand, students in the hard sciences are more math and problem oriented. At the undergraduate level (the focus of these proposed studies), this may be reflected in a greater reliance on activities indicative of a reproducing orientation. In their study of British students attending several colleges at Oxford and Cambridge, Hayes and Richardson (1995) found evidence to support this difference. Watkins and Hattie (1981) did so also, over three decades ago.

The question then arises, "Toward which orientation will business students align?" In general, because business students must often solve numbers-oriented problems *and* engage in a fair amount of writing and analysis, it is proposed that they would exhibit a greater (lesser) tendency toward a meaning (reproductive) orientation than science students and a greater (lesser) tendency toward a reproductive (meaning) orientation than arts students. Such comparisons can also be made between/among business majors, for example, marketing as compared to finance. It might also be necessary to consider splitting business majors into two groups based upon a "harder/softer" distinction among business disciplines in any comparison with students from other parts of the university (Nulty and Barrett, 1996).

Due to the trend in higher education research toward a return to the inclusion of a strategic orientation in identifying and assessing study approaches (and its frequent usage in the growing study-approaches literature in business education), it is recommended here that the RASI be utilized as the primary criterion measure, rather than the shortened version of the ASI.[4] It is expected, particularly among business students, that the strategic approach will find frequent usage. Contrasts in employment of a strategic orientation among business students of different

disciplines or among students within major areas of study within the university (e.g., business vs. the liberal arts) would be exploratory in nature, due to the lack of extant evidence to date.

Variables of Interest and Suggested Methodologies

Use of several constructs and measures depicted in Table 2 would provide insight regarding factors that influence students' approaches to studying. The categories of Descriptive/Demographic and Individual Differences would be the most practical to employ. Factors indicating Prior Qualifications/Achievement typically require that the investigator be able to link specific students to any questionnaire they complete, thus forfeiting subject anonymity. This could also lead to socially desirable responses from subjects. There is some question whether university institutional review boards would permit access to such records on an individual student basis, allowing the researcher to make that identifying link.

For the descriptive/demographic factors, time spent studying (via self-report diaries) has been found to have a direct relationship with students' choices of study approach, notably with respect to the Study Habits Inventory (Jones et al., 1995) and Biggs's (1987a) Study Process Questionnaire (Kember, Ng, Tse, Wong, & Pomfret, 1996). The examination of main effects of gender as a key component to approaches to studying is of prime interest, in particular in terms of interactions with division of the university (e.g., Business, Arts, and Sciences) and the students' major field of study. Hayes and Richardson (1995) found such effects along these lines between arts students and sciences students.

The set of individual difference variables represents personality, motivational, and attitudinal factors predicted to influence students' study characteristics. Of the large set of variables they tested, Jones et al. (1995) found internal locus of control to have the greatest association with positive study habits. Academic efficacy, which focused on self-efficacy for reading and writing performance, was positively related to organizing/summarizing and connecting, the two higher-order study strategies uncovered by Horn et al. (1993). Of the three dimensions of time-management skills conceptualized by Britton and Tesser (1991), short-range planning and time attitudes were significantly related to students' cumulative GPAs. Higher levels of the independent variables suggested above should be more associated with a meaning orientation and inversely associated with a reproducing orientation. Students with little motivation or with negative attitudes toward their academic endeavors rely more heavily on surface-type approaches to learning. Again, with limited evidence available regarding links among these variables and a strategic approach to studying, any such findings would provide new insights.

Statistical operations using regression and analysis of variance, both multivariate and univariate, could be conducted. RASI scores for the three individual factors would serve as criterion measures, testing for differences along any employed predictor variables, for example, gender, time management, locus of control, subject area/major, etc. Path analysis, an application of multiple regression to causal models, could be employed to examine the interrelationship among variables. For significant relationships found, students with scores in the upper half of a given independent measure might be contrasted with students whose ratings of the variable are in the lower half. Items from each dependent measure can then be used to identify the discriminant

function (e.g., Jones et al., 1995). This may provide further insights into the nature of any significant findings from the path model.

CONCLUSION

Evolving expectations of college-level instructors' teaching styles (e.g., less reliance on straight lecture, more use of experiential methods) need to go hand-in-hand with a greater appreciation of the learning/studying styles of our students (Nulty and Barrett, 1996) and how they relate to the particular learning context in which they find themselves (Prosser & Trigwell, 1999). The present review of extant research on this topic reveals a useful base of knowledge upon which a framework for further exploration of the issue of business students' study orientations can be formulated. The results of the depth interviews presented here show evidence of participants' greater reliance on surface and strategic approaches versus activities indicative of the deep approach. The set of proposed research activities described in the present work is offered as a guide to empirical investigation that may bring greater understanding of how business students make study strategy choices and how those choices compare to students in other areas of the institution.

NOTES

[1]The terms "approaches to studying" and "approaches to learning" are used interchangeably in the present article, based upon the varied usage found in extant publications. In the seminal work in the higher education literature, the former term is used nearly exclusively, while the several studies found in the business education literature tend to employ the latter.

[2]With respect to the literature on students' approaches to studying, several descriptive terms such as strategies, skills, and tactics appear. While these should not necessarily be viewed as entirely interchangeable, they are highly related. When necessary, care will be given to use the appropriate and specific term.

[3]For the Consumer Behavior class project, each of the nine student teams pooled its interview data with two other teams, but completed its own project. Thus, each individual team had access to no more than a one-third portion of the data set. Also, the nature of the students' research analysis bore little resemblance to the qualitative study presented here, the analysis for which was performed by the author.

[4]Biggs's (1987a) Study Process Questionnaire (SPQ) is also a well-accepted battery, whose structure exhibits three study orientations similar to those of the RASI.

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TABLE 1

Measures of Student Approaches to Studying

Measure	Number of Items (Scale Employed)	Dimensionality	Dimensions
Approaches to Studying Questionnaire (ASQ)[d] (Ramsden & Entwistle, 1981) (Entwistle & Ramsden, 1983)	64 (Definitely Agree / Definitely Disagree)	4 General Orientations, each with 4 subscales	Meaning Orientation[a] Reproducing Orientation[b] Achieving Orientation Styles and Pathologies
Short Version of Approaches to Studying Questionnaire[d] (Hayes et al., 1997; Richardson, 1990; 2006)	32 (Definitely Agree / Definitely Disagree)	2 Fundamental Study Orientations, each with 4 Subscales	Meaning Orientation[a] Reproducing Orientation[b]
Revised Approaches to Studying Inventory (Entwistle et al., 2000; Richardson, 2006)	52 (Definitely Agree / Definitely Disagree)	3 Fundamental Study Approaches, with 13 Subscales	Deep Approach Strategic Approach Surface Approach
Strategy Value Survey (Horn et al., 1993) *Adapted from Nolen and Haladyna's (1990) GSSS scales	14 (Strongly Agree / Strongly Disagree)	3 Strategies, (1 Lower Order, 2 Higher Order)	Memorizing[c] Organizing/Summarizing Connecting
Study Process Questionnaire (Biggs 1987a; 1987b)	42 (Always True / Never True)	3 General Orientations, each with subscales for motive and strategy	Deep Orientation Surface Orientation Achieving Orientation
Short Version of Study Process Questionnaire (Scouller & Prosser, 1994)	21[e] (Always True / Never True)	3 General Orientations (included only subscales for strategy, not motive)	Deep Orientation Surface Orientation Achieving Orientation
Study Habits Inventory (SHI) (Jones et al., 1995)	63 (True / False)	Not Applicable; Items approx. 1/2 pos., 1/2 neg.	Effective Study Behaviors Ineffective Study Behaviors

[a]Deep Approach subscale subsumed within this factor. [b]Surface Approach subscale subsumed within this factor. [c]Akin to surface approach to studying.

[d]Over time, both sources changed their terminology for these scales' names from "Questionnaire" to "Inventory."

[e]Includes first 21 strategy items (7 deep, 7 surface, 7 achieving) from Biggs's (1987a; 1987b) 42-item Study Process Questionnaire.

TABLE 2

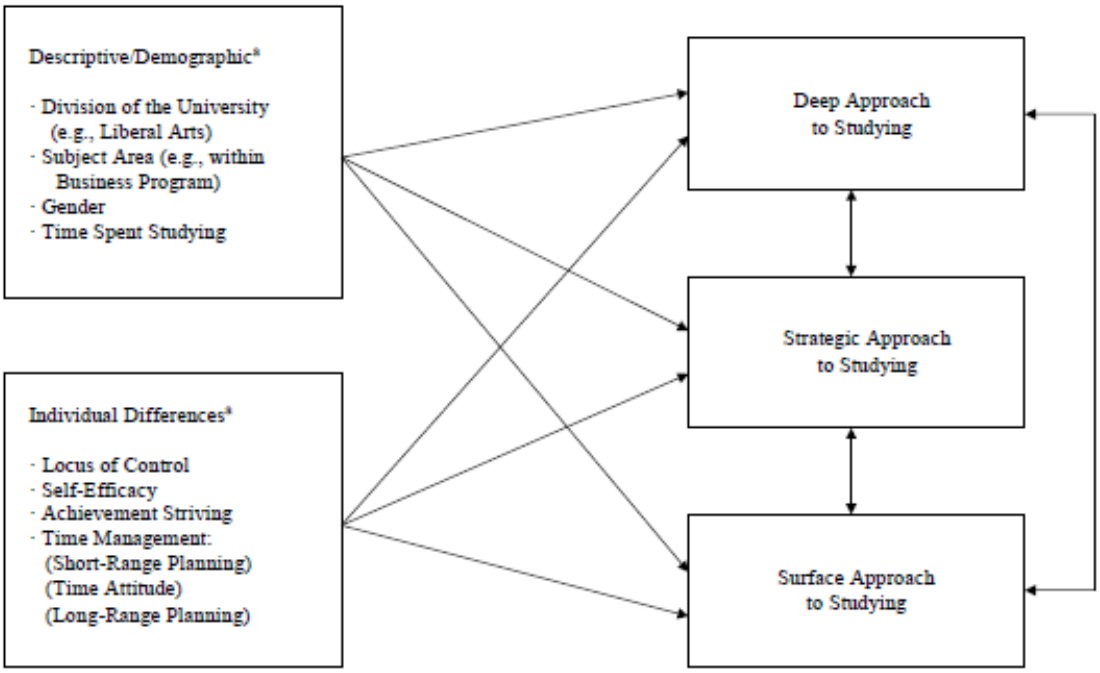
Key Examples of Independent Variables Utilized Historically in Research on Studying[a,b]

Source	Criterion Measure(s)	Descriptive/Demographic	Individual Differences	Prior Qualifications/Achievement
Hayes and Richardson (1995)	Short Version of Approaches to Studying Questionnaire	Gender[b] Subject Area (i.e., Arts vs. Sciences)[b] Gender by Subject Area[b]	x	x
Jones, Slate, and Marini (1995)	Study Habits Inventory	Age[b] Ethnicity Gender Class Standing (Year) Time Spent Studying (Weekly)[b] Number of Credit Hours Number of Hours Spent at Outside Job (Weekly)	Locus of Control[b] Social Interdependence	High School GPA Adequacy of High School Preparation
Horn, Bruning, Schraw, Curry, and Katkanant (1993)	Strategy Value Survey Aggregate of Course Exam Scores	x	Academic Self-Efficacy[b]	Index of General Ability[b] *Consists of the following: American College Testing Exam Score (ACT) Test of Logical Thinking Degrees of Reading Power Quick Word Test
Britton and Tesser (1991)	Cumulative GPA	x	Time Management *Consists of the following: Short-Range Planning[b] Time Attitudes[b] Long-Range Planning	Scholastic Aptitude Test Score (SAT)[b]
Nolen and Haladyna (1991)	Strategy Value Beliefs (aka Goals and Strategies for Studying Science)	x	Task Orientation[b]	x

[a]An "x" indicates that no independent variables fitting the column description appeared in the study.

[b]Indicates that predictor variable found to have a significant effect on one (or more) of the criterion variables modeled in the study.

Figure 1. Potential Model Elements for Testing of Factors Influencing Students' Studying Characteristics



*The effects of meaningful interactions (e.g., Subject Area by Gender) on the differing Study Approaches employed by student participants should also be incorporated into any testing procedure and analysis.

SAP AND THE INTRODUCTORY MANAGEMENT INFORMATION SYSTEMS COURSE

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ABSTRACT

University curriculums are constantly being modified to reflect changes in demand. Management Information Systems' (MIS) use of ever changing technology demands that its curriculum be evaluated more frequently than many of the other disciplines. In order to assist in curriculum improvement, the Association for Computing Machinery (ACM) and the Association for Information Systems (AIS) has jointly developed guidelines for undergraduate degree programs in Information Systems (IS). One of the notable modifications to the guidelines is the increase in emphasis towards enterprise resource planning (ERP) systems. Many articles have touted the benefits of hands-on learning. The most widely used ERP application on the market is SAP. This paper describes the approach one large university in the southwest took in integrating ERP/SAP into the Introductory Information Systems course.

Keywords: *ERP, SAP, MIS Curriculum*

INTRODUCTION

Over the years there has been an increased effort to include more coverage of enterprise resource planning (ERP) systems in the business school curriculum (Antonucci, Corbitt, Stewart & Harris, 2004). This is in large part due to the increased demand from businesses for graduates with ERP experience. In order to meet this demand there is a noticeable trend away from the traditional "silo" style of teaching, where each functional area discusses topics related to their particular area and not how it impacts others. The traditional silo structure of business degrees and the highly integrative scope of ERP systems make this quite a challenge for many programs of study. This paper describes how one university implemented ERP/SAP into their introductory information systems course.

The market usually determines the specific courses to offer in a particular major. For information systems an additional resource is the consideration of the guidelines set by the Association for Computing Machinery (ACM), the world's largest educational and scientific computing society and the Association for Information Systems (AIS), the premier global organization for academics specializing in information systems. Over the years, they have jointly developed guidelines for IS curriculum. Their guidelines have evolved over time with the most recent update occurring in 2010. One of the notable modifications to IS-2010 is the increase in emphasis towards enterprise systems (Topi, Valachich, Wright, Kaiser, Nonamaker, Sipior, & deVreede (2010).

IS-2010 suggests topics to cover in the core information systems courses along with topics to cover in elective information systems courses. The guidelines specify a stand-alone

enterprise systems course as an elective, whereby, the student receives in-depth coverage of enterprise systems and how they integrate information across the different functional areas.

In order to give the student additional exposure to ERP systems, the guidelines also suggest including the enterprise systems as a component in the Foundations of Information Systems core course. In our particular college, ERP systems were already discussed in the introductory IS course. The IS faculty in the College of Business decided to follow the recommendation and increase the amount of time and assignments dedicated to ERP systems. With the support from the Dean and chairs in the college we decided to provide students hands-on experience to an ERP package.

While IS 2010 doesn't recommend a specific ERP software package, they do specify that, "It is, however, preferable that the course include exposure to and hands-on use of one of the two large Enterprise System vendors in the market place, SAP or Oracle, or one of the several smaller vendors such as SSA Global, Microsoft (Axapta, Great Plains and Solomon), Intuit, or Minicom, to name a few." (Topi, et al., 2010, p. 60).

There are many benefits to hands-on learning, such as, greater retention of the material and the increased development of critical thinking skills (Haury & Rillero, 1994). Many of the ERP packages offer educational pricing to universities making is affordable to acquiring access to the various software applications. To varying degrees, instructional support material is also offered (Barnes & Ferguson, 2008).

These ERP systems will give the student exposure to the concept of an enterprise system. The IS faculty decided that SAP would be most advantageous for the student. The ERP application most widely used in the workplace is SAP. As of 2011, SAP had the largest market share based on revenue at 25.5%. This is with a 13.2% growth from 2010 (Gartner, 2012).

SAP UNIVERSITY ALLIANCE (UA)

There are essentially two methods to offering a hands-on approach to using SAP, self-hosted or being hosted externally. A major drawback to self-hosting, is maintaining the hardware and currency of the software. Included in the hardware and software costs, the technical staff required in supporting a self-hosted SAP package can be costly. A potential departure of a key technical support person can drastically alter the effective delivery of exposure to SAP. To help in this regard, SAP has created the SAP University Alliances (UA) Program. UA's purpose is to support universities efforts in designing courses for students.

SAP University Alliances has created the University Competence Centers (UCCs) so that each university wanting to offer a hands-on approach to SAP does not have to invest in the hardware and technical expertise to run SAP (SCN, 2012). The UCCs will upgrade and support the latest version of SAP.

An additional advantage to being hosted by one of the UCC's is access to all of the existing University Alliance (UA) curriculum, which is a vast amount of documentation and

hands-on exercises created by academicians for the specific use of other academicians in a classroom environment.

The UA also offers numerous workshops throughout the year at various locations around the world. These workshops are designed for faculty who are just starting out with SAP to more advanced topics that deal with business analytics, SAP/ERP configuration, to SAP Simulations.

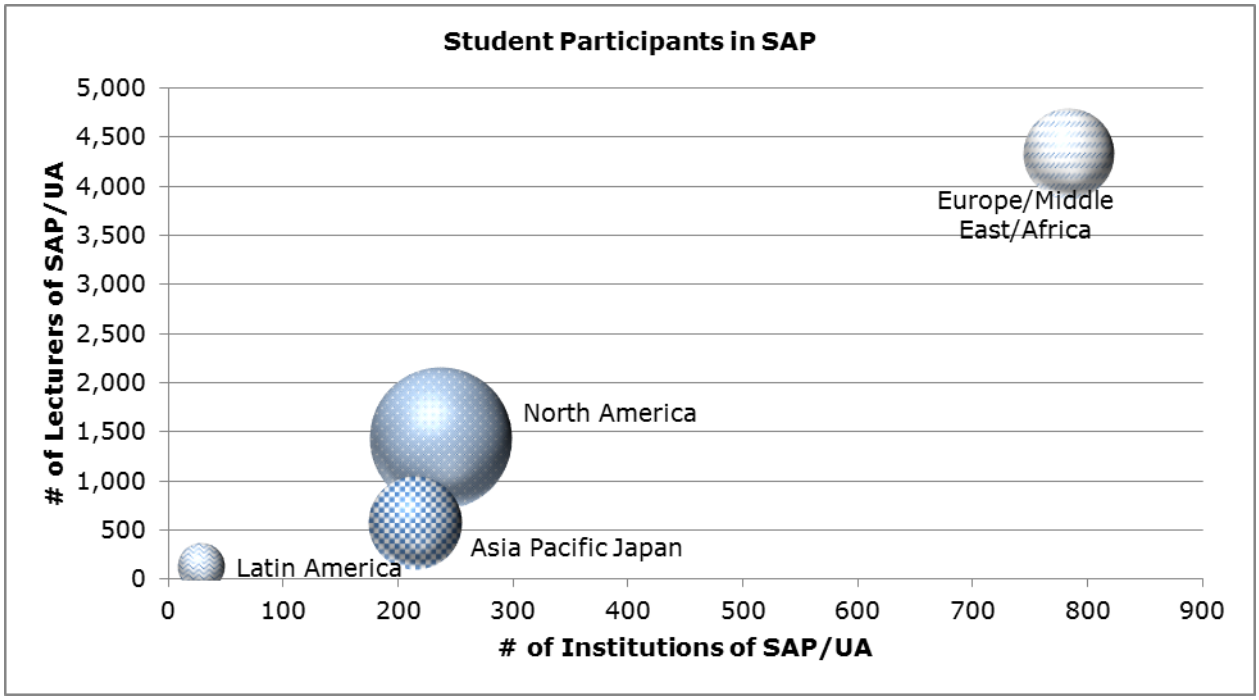
External hosting sites have two locations in the United States - California State University, Chico and University of Wisconsin, Milwaukee and three overseas – Otto-von-Guericke- Universität in Magdeburg, Germany, Technische Universität München in Munich, Germany, and Queensland University of Technology in Brisbane, Australia. There are currently over 1,200 member institutions.

UA is divided into four different regions: North America, Latin America, Asia/Pacific/Japan, Europe/Middle East/Africa. The table below is a breakdown of the number of institutions, number of instructors and the number of student participants in the last year. These numbers address the popularity of using SAP in the curriculum. While the North American region does not have the highest number of institutions or the highest number of instructors, it does have the largest number of student participants at over 100,000. Another point of interest is the large number of participating institutions from the Europe/Middle East/Africa region, at 783 they far outnumber North America's 237 institutions. Figure 1 below is a graphical depiction of the data in Table 1 with the size of the sphere indicating the number of student participants.

Table 1
SAP UA Number of Participants

	North America	Latin America	Asia Pacific Japan	Europe/Middle East/Africa	Total
# of Institutions	237	28	214	783	1,262
# of Lecturers	1,437	131	572	4,336	6,476
# of Student Participants	114,764	12,313	49,684	46,176	222,937

Figure 1: SAP UA Participants



In order to further assist individuals getting familiar with SAP, SAP has created the SAP Community Network (SCN). SCN is a social network site built for professionals to assist them with questions they may have regarding enterprise software. SCN is made up of discussion forums, active blogs, videos, and millions of users to assist with technical issues that users may come across.

IMPLEMENTATION ISSUES

Once the decision was made of incorporating SAP into the curriculum, the next step was to provide proper training for the faculty with an interest in SAP. This was done by providing adequate resources for faculty to attend numerous SAP UA workshops that are offered throughout the year. For SAP UA members there are no registration fees, travel and lodging are the primary expenses incurred for attending the workshops. The faculty members from our college who volunteered to attend the workshops in SAP were primarily from the Information Systems, Accounting, Operations Management, and Human Resource Management areas.

The workshops are typically taught by faculty for faculty, “train-the-trainer” is the term often used for the workshops. The first workshop required before attending any of the other advanced workshops is typically the “Introduction to SAP ERP using Global Bike, Inc.” Global Bike, Inc. is a fictitious company that is one of many that is used by SAP UA in providing case material for instructional purposes. Other fictitious companies created are IDES, Fitter Snacker, Fly-A-Kite, and ALMIKA. The course materials offered in these workshops are vast and available for UA members for use in their courses.

For the Introductory Information Systems course, at this particular college of business, Global Bike, Inc. cases were utilized. The topic of ERP systems follows the database discussion and helps to reinforce the database concepts. One of the primary goals in this course is to familiarize the students with the SAP GUI and to get them accustomed to navigating through the SAP menu. Another primary goal is to emphasize the importance of ERP as a cross functional system. This is accomplished by having the students work through the process of "Materials Management," whereby in SAP, they perform the following tasks:

- create a new vendor
- create a new trading material
- request quotes from various vendors
- accept a quote
- create a purchase order based on the quote
- post the goods receipt
- verify physical receipt in stock
- post payment to the vendor
- review the G/L accounts

To further reinforce the concepts, a second case dealing with "Sales and Distribution" is done. For the Introductory IS course, these cases were slightly modified from the original by taking out the numerous screen shots and providing more of a scavenger hunt through the SAP menu system.

The College of Business also decided that in order to provide an incentive for students to take the courses with SAP exposure, the College would offer a Certificate of Completion to students who have successfully completed at least three courses with SAP content.

One of the discussions that arose during this process was what role do management information system's majors play in the use of established ERP systems. Businesses still have the functional areas that make specific use of various components of the ERP system. Information Systems' majors would take on the role of a "Super User." Super Users possess the following skills (Dollries, 2009):

- "First line of support for users
- Representative for the department / process team
- Ability to communicate effectively with technical team, users and management
- Testing expertise
- Outstanding SAP training
- Continuous process improvement
- Ability to document processes, functional specification etc.
- SAP knowledge"

Another issue that comes up is how to incorporate the ERP software into multiple courses. The more exposure students have to a particular topic will lead to an increased understanding of the material. A difficulty arises in coordinating across disciplines (LeRouge & Webb, 2004). The complex nature of ERP systems demands more exposure than simply a single

course offering. Informal interviews were conducted with students who have completed the single Introductory course and those that have had additional course work from other areas, it is apparent that the amount of benefit a student receives is vastly increased with the additional exposure the student receives from the other classes. Typically students who only had the single course had comments similar to "It's a waste of time." While students completing multiple courses and who had become familiar with the software interface had comments similar to, "I see how it all ties together and see how beneficial this is."

CONCLUSIONS

This paper describes why SAP was selected and how SAP is implemented into the introductory Information Systems course. With the increased emphasis being placed on enterprise resource planning systems it is important for educational institutions to give students proper exposure to these systems. A hands-on approach that enables the students to gain valuable experience using an ERP system is very beneficial. SAP offers many resources to help instructors in incorporating SAP into the curriculum. In order for students to get the full benefits from their experience with SAP, they need to understand cross functional business processes and this needs to be done with ERP/SAP exposure in multiple courses.

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GIVING VOICE TO STUDENTS: A PRELIMINARY ANALYSIS OF INFORMAL MID-TERM EVALUATIONS & PROCEDURAL JUSTICE

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ABSTRACT

Evidence demonstrates that unofficial standardized mid-term evaluations increase end of semester evaluations and student satisfaction. However, standardized evaluations are often too costly to process twice in one semester and lack an acceptable turnaround time to be used effectively. We assert that informal mid-term evaluations, conducted as an opportunity to express voice (i.e., procedural justice), will produce positive results for both students and instructors, thus significantly enhancing the learning environment, without the cost and turnaround time required by standardized evaluations. Results from a quantitative analysis of instructor evaluations, as well as student grades are reviewed and provide support for our assertions.

Keywords: Procedural justice, standardized end of semester evaluations, mid-term evaluations

INTRODUCTION

Standardized mid-term evaluations (SMEs) have been found to benefit faculty as they have the opportunity to identify and address potential problems (Baldwin & Blattner, 2003; Overall & Marsh, 1979). In fact, (SMEs) can benefit students as they "have an opportunity to express their views and see their possible changes during the remainder of the semester" (Spencer & Pedhazur Schmelkin, 2002, p. 406). Evidence demonstrates that standardized mid-term evaluations increase student satisfaction (Brown, 2008). However, standardized evaluations tend to be lengthy, costly and lack the results turnaround needed to be effective for the applicable semester. For example, some evaluation forms take months to provide feedback (http://www.pubapps.vcu.edu/courseeval/faculty/). Moreover, anecdotal evidence supports the use of an informal mid-term evaluation as a "mid-term tune-up" (Milman, 2006), which can benefit both students and professors. Even though there is evidence to support the notion that mid-term informal evaluations are beneficial, it appears that a preference remains for end of semester evaluations as compared to informal mid-term evaluations (e.g., Lindahl & Unger, 2010).

End of semester student evaluations of teaching (ESSETs) have been used extensively for decades (Spencer & Pedhazur Schmelkin, 2002). ESSETs are often obtained to gather student responses about their course for informational purposes, but they are increasingly used for critical personnel decisions such as tenure and promotion (Baldwin & Blattner, 2003). Some researchers (i.e., professors) doubt the validity of student evaluations and have discovered that university students are often untruthful on evaluations about their professors. In fact,

approximately one third of the students indicate that they were dishonest on the end of semester assessments when they were anonymous (Anas, 2011).

Because faculty doubts the validity of student evaluations of teaching, they are often ambivalent about end-of-semester evaluations. For example, some faculty members state that they might not read the evaluations and/or comments because they are received after the end of the semester and are not immediately useful (Simpson & Siguaw, 2000). In addition, some professors opt out of reading comments from their evaluations because of the level of cruelty and harshness that is often present in efforts to shield themselves from the emotional toll that may be imposed (Lindahl & Unger, 2010). Interestingly, ambivalence does not only reside with professors. Students are often unsure about providing sincere evaluations as they are not certain that their opinions will be taken seriously (Spencer & Pedhazur Schmelkin, 2002). One suggested solution to this shared ambivalence, is to evaluate at intervals such as at the mid-term of the semester (Baldwin & Blattner, 2003).

While academic institutions continue to base important tenure-track personnel decisions on end of semester evaluations (Lindahl & Unger, 2010) and researchers suggest mid-term evaluations be conducted to mitigate some issues with end of semester evaluations (Baldwin & Blattner, 2003; Milman, 2006), virtually no research has focused on other effects of informal mid-term evaluations for both students and professors on the end-of-semester outcomes. We look to further discussion in this area of study and suggest that both end-of-semester evaluations and student grades improve as a result of mid-term evaluations being conducted. Supported by the procedural justice literature we look to build the argument that the opportunity for students to express their opinions results in positive outcomes. Procedural justice, in the form of voice, has been found to generate other positive work outcomes (Bies & Shapiro, 1988; Dulebohn & Ferris, 1999), and we believe it plays an important role in this area of study that has been overlooked.

The remainder of the paper is organized as follows. A theoretical framework is presented. In addition, the methodology and a discussion are provided.

THEORETICAL FRAMEWORK

A significant amount of research has been conducted to determine the role that procedural justice has on business and collegiate outcomes (e.g., Leventhal, Karuza & Fry, 1980; Macfarlane, 2001; Tyler & Blade, 2003). For instance, procedural justice has been found to have a positive relationship with the assessment of authority figures, outcome satisfaction, and trust, (Colquitt, Colon, Wesson, Porter & Ng, 2001). Procedural justice is assessed by whether or not procedural guidelines were upheld like ethicality, a consistent method, correctability, bias suppression, accuracy of information, and representation (Colquitt, 2001; Leventhal et al., 1980). In addition, voice, or the opportunity to express one's views has been utilized as a proxy to assess whether or not procedural justice or fairness has been observed (e.g., Cremer & Heil, 2008). Interestingly, individuals given "voice" assessed a procedure to be just or fair even when they recognized that it would not influence their outcomes. It is the simple act of being heard or allowed to express one's self that increased their perception of fairness (Lind, Kurtz, Musante, Walker, & Thibaut, 1980; Lind, Kanfer & Earley, 1990; Tyler, Rasinski & Spodick, 1985; Tyler & Blader, 2003). In fact, research states that, "having the opportunity for 'voice' had interpersonal or 'value-expressive' worth that was not linked to any influence over the decisions made" (Tyler & Blader, 2003, p. 351). Thus, prior research shows giving opportunities for "voice" has positive

outcomes that we argue can be at least partially replicated in an academic setting in relation to evaluations when opportunities for "voice" are given to students.

In the collegiate context, students often believe that their opinions and thoughts are not valued (Spencer & Pedhazur Schmelkin, 2002). However, there is evidence that when students perceive that they are given the opportunity to share their opinion and believe that their solicited input is taken seriously, there is a positive result of an increased level of engagement in the course. This can manifest as better student performance and improved attitudes (Brown, 2008). As a result of increased engagement, they may perceive that the instructor has done a better job at teaching. This perception aligns with previous business findings that procedural justice (i.e., voice) has a positive relationship with how an individual assesses management (e.g., a professor) (Colquitt et al., 2001). In addition, they may participate more in the course, which may lead to higher grades for students.

The literature on student evaluations of teaching, much of which focuses on end-of-semester evaluations, indicates they are used for three main reasons: 1) As a formative tool to provide student feedback to faculty for improving their teaching; 2) As a summative tool for administration to use in personnel decisions, such as tenure and promotion; and 3) As a means for students to convey their opinion to other students in a more formalized manner (Spencer & Pedhazur Schmelkin, 2002). While there have been a number of reviews and syntheses of the psychometric properties of teaching evaluations (Aleamoni, 1999; Marsh & Dunkin, 1997; Wachtel, 1998) that look to investigate the summative use for personnel decisions, there are scant studies that look at evaluations and their impact on the formative reason of improving teaching (Smith, 2008). As mentioned, faculty have indicated that end-of-semester evaluations are seen as after the fact and might ignore them, particularly if they include cruel comments (Lindahl & Unger, 2010). However, mid-term evaluations are seen as a possible avenue to determine what is not working well and make changes (Hobson & Talbot, 2001; Overall & Marsh, 1979) to address specific concerns of the current semester's students. Mid-term evaluations appear to provide a definitive opportunity for voice, particularly when administered with adequate feedback mechanisms (Overall & Marsh, 1979; Simpson & Saguaw, 2000). Research on student satisfaction of evaluations suggests "that to increase student satisfaction, instructors, when using individual, standardized student-rating forms, should either provide extended reaction to the student opinions or conduct the process at midterm" (Abbott, Wulff, Nyquist, Ropp & Hess, 1990, p. 205). A midterm evaluation discussion with the class can be used similarly to the midterm conference which "build[s] rapport that increases class participation and learning for the rest of the term" (Fluckiger, Tixier, Pasco & Danielson, 2010, p. 138). With time limitations during the semester for individual conferences and at the end of the semester for providing feedback, the collective midterm feedback process appears to be one of the better approaches. Thus, focusing on a collective midterm feedback process for the preliminary study the research questions are as follows:

Research Question 1: Will the student responses on the end of year formal faculty evaluations be more positive when informal mid-term evaluations are administered?

Research Question 2: Is there a positive relationship between students being afforded the opportunity to express voice via informal mid-term evaluations and student scores at the end of the semester?

METHODS

Data were collected from eight undergraduate College of Business Administration courses taught between spring 2009 and fall 2010 at a university in the Southwest. There were two types of classes involved - an Organizational Behavior course that focused on managerial and employee behavior and an Introduction to Management Information Systems course that focused on technology and problem solving skills. The before informal collective midterm feedback end of semester evaluation classes had a total of 159 students with 70 in the technology course and 89 in the managerial course. The after informal collective midterm evaluation courses had a total of 157 students with 72 in the technology course and 85 in the managerial course.

In the semesters when the informal midterm evaluations were given, students in each class were asked to complete an evaluation form to provide feedback to how they perceived the course. More specifically, they were asked information about the strengths of the course or what they liked about how the course was taught as well as what they would like to see changed or areas for improvement. The forms were administered during class time and were collected in a randomized manner to ensure anonymity. All forms were reviewed by the administering instructor who summarized and coded the comments according to their content. The resulting list of comments was divided into a two categories – strengths and likes or areas for improvement and dislikes. Comments in each category were tallied as to the frequency of each similar type of comment. The instructors reviewed the feedback and noted those items that were identified most frequently by tallying each feedback comment.

The instructor then provided a review during the class period following the form administration of those items most frequently submitted that the students identified as strengths of the course, as well as detailing what could be modified with regard to the items the students most frequently identified as areas for improvement. If there were high frequency items identified as needing change but could not be modified during the remainder of the semester, the reasoning behind the approach the instructor was using and why it could not be changed was discussed. The goal of the reviews and discussions was to build rapport, give voice to the students as partners in the learning process, give value to students' opinions by acknowledging their viewpoints and improve the course instruction methodology.

At the end of the semesters, the students completed the official evaluation form which is used for improving the course pedagogy, as well as input for tenure and promotion decisions for the university. The university uses the IDEA evaluation form as the survey instrument (see www.theideacenter.org). The IDEA evaluation is considered unique in that it is "the only widely used student evaluation that uses student learning as the major criterion for teaching effectiveness" (Hobson & Talbot 2001, p. 10). There are several summary evaluation scores resulting from analysis of the survey instrument. This university focuses on the "Converted Adjusted Score" (CAS) for promotion and tenure purposes, thus this score is a main focus for instructors as well. Ultimately, the desired outcomes from the informal midterm evaluation process are to improve the students' learning process resulting in higher grades and raise students' satisfaction in the learning environment which should be reflected in significantly higher instructor evaluation scores. Therefore, the outcomes of interest for this observational study are semester end student final grades and the CAS score from the formal semester end course evaluation.

Two t-tests using the Stat Pac statistical calculator were conducted to analyze the data from this preliminary study. First, we conducted an analysis to determine if there was a

significant difference between the IDEA scores of the instructors for the classes without the informal midterm evaluations and IDEA scores of the instructors for the classes that conducted the midterm evaluations. Second, an analysis was conducted to determine if there was a significant difference in the student grades between the classes that did not have an informal midterm evaluation and the courses that did have an informal midterm evaluation.

RESULTS

We included data from students who were enrolled in both the managerial and technology courses in our analysis. The null hypothesis for both t-tests is that there is no positive increase in the mean of the scores being analyzed from the classes where there was no informal evaluation to the classes where there was an informal evaluation.

First, we analyzed the formal end of semester IDEA evaluations scores (IDEA scores). Table 1 shows a comparison of the IDEA scores for the classes without the informal midterm evaluations to the IDEA scores for the classes with the informal midterm evaluations.

Table 1
Two-tailed T-test Results for IDEA Score Comparison

	IDEA Scores Technology Classes	**IDEA Scores Managerial Classes**
Mean – Without midterm	44.5	52.0
Mean – With midterm	53.0	57.5
Mean difference	8.5	5.5
Observations	141	172
Test statistic	5.081	3.62
***p*-value**	0.0000	.0004
	Reject the null hypothesis	**Reject the null hypothesis**

We discovered that there was a positive increase for the IDEA scores of 16.04% in the technology focused courses and a positive 9.57% in the managerial focused courses. The results of the two tail t-test provide evidence to reject the null hypothesis. This finding supports research question 1, indicating that end of semester instructor evaluations will be more positive when there are informal midterm evaluations with feedback in both the technology and managerial classes.

Table 2
Two-tailed T-test Results for Student Grade Comparison

	Student Grade Technology Classes	**Student Grade Managerial Classes**
Mean – Without midterm	81.5%	81.2%
Mean – With midterm	85.5%	82.7%
Mean difference	4.0%	1.5%
Observations	141	172
Test statistic	5.081	3.62
***p*-value**	0.014	.0717
	Reject the null hypothesis	**Do not reject the null hypothesis**

We ran a second analysis to determine whether or not there was a difference in how the students performed in the managerial and technology courses when an informal midterm evaluation was administered. We discovered that there was a positive increase of 4.16% in the technology focused course, and a positive increase of 1.56% in the managerial focused course when comparing the end of semester student scores in the courses that had no midterm evaluation with the courses that did have midterm evaluations The t-test for the technology classes student grades was significant at the .05 critical alpha level (see Table 2) but not for the managerial classes student grades, therefore the null hypothesis should be rejected for the technology classes student grades. Rejection of the null hypothesis for the technology classes' student grades provides evidence that the student grades in the technology classes with the informal midterm evaluation are significantly different than the student grades in the classes without the informal midterm evaluation. This data provides partial support for research question 2, indicating there is some positive influence of the informal midterm evaluation on students' scores.

Interestingly, when comparing the ranges of student scores in the classes without the informal midterm evaluation and feedback to the classes with the informal midterm evaluation and feedback it is noted that the ranges narrowed substantially with the minimum student grade making a large percent change while the maximum student grade increased or decreased slightly. More specifically, for the technology classes the range changed by 28.03% with the minimum student grade increasing by 14.83%. For the managerial classes the range changed by 27.18% with the minimum student grade increasing by 10.38%. This would support the view that the average grade increased due to fewer students being at the lower end of the grade range indicating more involvement in the class for the lower performing students. The indication of more engagement of challenged students is an unexpected positive outcome.

DISCUSSION

Both the student and faculty populations stand to gain insight from student evaluation research. For faculty, the question "Why not try to improve and address the concerns of our students?" (Simpson & Siguaw, 2000, p. 205) echoes the sentiments that "Clearly, faculty members value teaching and have a strong desire to teach well" (Hobson & Talbot, 2001, p. 7). The recommendation to use informal midterm evaluations by the faculty for formative purposes is not new (Hobson & Talbot, 2001; Algozzine et al., 2004) however, there is a paucity of research investigating the potentially positive relationship that is between the informal midterm evaluation and outcomes of interest through the lens of procedural justice. This preliminary look at the positive effect of informal midterm evaluations on a key metric for teaching effectiveness provides evidence that giving "voice" to the students helps establish rapport resulting in more positive outcomes.

Researchers have argued that the more mathematical course content is, such as a technology course versus a managerial course, the less students tend to like the course (Glymour 2003). However, the evidence from this research points to the fact that providing timely feedback to student concerns is a positive experience for the students regardless of the amount of mathematical content in the course as both the managerial and technology courses had increases in the instructors' IDEA scores.

"Most college students are constantly evaluated in their classes, but receive inadequate feedback" (Tagg, 2008, p.18). Increasing the free exchange of ideas (Simpson & Sigwuaw,

2000) and student engagement in the classroom through informal midterm evaluations and feedback appears to align with the concept of procedural justice, enhancing the students' experience and ultimately their assessment of the effectiveness of the instructor.

The current student population has been characterized as "Millennials: They rarely read newspapers -- or, for that matter, books. They are impatient and goal oriented. They tend to dislike busywork, learn by doing, and are used to instant feedback (Sweeney 2007). Thus, it appears that Millennial students require more frequent feedback. We are not suggesting that this describes all current students, but is indeed an accepted generalization (Gilbert, 2011; Sweeney, 2007). In addition, Millennials are seen as wanting a nurturing environment, looking for constant connection with supervisors and managers who are always available for feedback (Corporate Leadership Council, 2004). Informal midterm evaluations with feedback appear to give an opportunity for "voice" to the students and provide the "instant feedback", in a nonthreatening manner, resulting in not only higher instructor evaluations but higher student scores. Both outcomes provide evidence that timely informal midterm feedback is a positive experience for the students.

LIMITATIONS AND FUTURE RESEARCH

While this research is acknowledged as preliminary and observational several limitations should be noted. First, grade leniency has been a pervasive issue in academia and some might suggest that the professors in this study received higher evaluations as a result of the students receiving higher grades. We believe the higher grades were related to increased engagement as a result of midterm evaluations providing voice, but a future investigation could be conducted where grades are held constant. Further investigation would provide clarity and further insight with regard to the basis for higher grades. Second, the study of informal faculty evaluations as an area of pedagogical study is fertile ground for research that addresses informal midterm evaluations, procedural justice, and generational differences. Enrollment statistics indicate that the majority of the students in our university, specifically the College of Business Administration where we collected the data, are Millennials or Generation Y'ers. A limitation of this investigation would be that we did not directly identify the ages, and thereby generation, of those who responded to the evaluations. However, future research may focus on determining if individuals from different generations (e.g., Baby Boomers, Generation X'ers) might respond differently when a mid-term evaluation is given. Significant differences might be apparent as Millennials have a unique experience, "(a) they grew up in a time of economic prosperity; (b) they are the most protected generation in terms of government regulation and consumer safety; and, (c) they are used to being indulged as a result of changing child-rearing practices" (McGlynn, 2005, p. 14). Thus, informal midterm evaluations may have a more positive influence on Millennials (as a result of the timely feedback) as compared to other generational groups. Studying these relationships would be valuable due to the number of individuals returning to school during later years of their life, which provides a wide range of ages in both undergraduate and courses graduate courses. Thirdly, the findings of this evaluation are limited as we have a modest sample size, these findings would be more robust if these analysis were conducted using a larger number of respondents. However, due to the very sensitive nature of faculty feedback as a means to award or deny promotion and tenure, it may be difficult entice faculty to replicate this study, and open themselves up to possible scrutiny, even with the positive outcome from this

observational study. Thus, this study is an important, albeit preliminary look at the use of informal midterm evaluations.

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THE CRITICAL ROLE OF ASSESSMENT IN FACULTY GOVERNANCE

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ABSTRACT

Despite increasing demands, faculty members within higher education continue to resist assessment practices as either incompatible with academic freedom or with genuine instruction within their disciplines. This paper suggests that some of this resistance can be attributed to conflicting meanings given to the term assessment by different interest groups. When understood as formative and focused on classroom learning, assessment becomes a powerful tool for faculty governance. When faculty authentically assess student learning from within the specialized knowledge of their fields, they gain an opportunity to exercise a powerful influence over curriculum and university structures. This paper suggests helpful resources and five practical steps that faculty may take to use assessment data in order to maintain control over the content of their disciplines as well as a voice the university governance by showing that students are learning what the faculty as experts have determined is essential to a field of study.

When the Spellings Commission released its report in 2006, *A Test of Leadership*, it was by no means the first the committee to offer a critical assessment of American higher education. However, that document in particular remains powerfully representative of the contemporary climate that is critical of the purpose, quality, and lack of accountability of higher education in the United States today. Of the areas for concern listed in the report's summary, four continue to shape public discourse about the effectiveness of colleges and universities: 1) the high cost of education that results especially from the lack of incentive to reduce inefficiency and improve productivity, 2) the decreasing ability of graduates to think critically, write well, and solve problems within the world of work, 3) the lack of collection and of clear reporting on students' educational performance, and 4) the inability to innovate and pursue "entrepreneurial" methods of growth.

In response, institutions of higher learning are placing greater emphasis than ever on institutional effectiveness through the practice of assessment. What exactly assessment means in this context is ambiguous, especially in relation to student learning and faculty governance. Although it implies an evaluation of the results of instruction, confusion ensues when an institution adopts assessment to measure education against the criteria like those of the Spellings Commission. Assessment threatens to measure institutional effectiveness in ways that outside constituents might find meaningful but does not necessarily correspond with faculty goals for learning or for a university as an institution. It quickly follows the faculty, whose governance within the university is largely based on their expertise to determine and present a curriculum, feel themselves subjected to a system of accountability that has little relation to the practices or content of their disciplines. Responding effectively to this new emphasis on assessment as institutional effectiveness, faculty must first appropriate assessment as that which improves learning and then must use it to maintain their role in determining when a student has achieved the credentials appropriate to the discipline that has been studied.

The ambiguity of the term assessment results from its modern history in education. Ewell describes the late 1980's as the point of origin for two assessment paradigms. The accountability paradigm is rooted in a report by the U.S. Department of Education in 1983 that was highly critical of primary and high school education. As a result, states turned to assessment as a way to account for school effectiveness. This paradigm spilled over into universities so that by 1990 over half of the states had mandated some form of assessment for accountability. Similarly, in 1992, the reauthorization of the Higher Education Act of 1965, brought additional scrutiny of learning goals, this time by the federal government. Thus, for Ewell, the Spellings Commission is further representative of interventions by the states and federal government into higher education over the past 30 years (Ewell, 2008).

Ewell describes a second paradigm, assessment for improving student learning. While assessment for accountability makes judgments about the progress of students, typically based on standardized, quantitative measures, which are derived for the primary purpose of reporting to outside constituents (such as accreditors and policy makers), the emphasis of the student learning paradigm is formative. It does not seek to make a final determination about a student's learning but to gather information that is used to enhance a further instruction. This kind of data can only be gathered from within the learning environment itself and is therefore only partially suited for standardized tests. It instead requires the interaction of the educator with the student using multiple measures acquired over time. The instructor's role is central in matching learning to assessment and assessment to judgments about how to shape the ongoing educational interaction between student and teacher (Ewell, 2008).

While Ewell's description helpfully distinguishes assessment in terms of ideal types, in practice, the assessment paradigms exist on a spectrum. This can readily be seen in statements like those offered by the Council for Higher Education Accreditation (2008), or the New Leadership Alliance for Student Learning and Accountability (2012), or The Council of Independent Colleges (2012). Policy directives like these seek balance along the spectrum by calling for improvement in both student learning and for better reporting on the summative results of that learning. This is certainly a legitimate goal. Universities educate, and assessment naturally takes on the dual role of attempting to report on how effectively they are doing this and using the information gained to enhance student achievement. Still, a balance in rhetoric does not necessarily lead to a balance in practice. The emphasis on reporting to outside constituents brings national calls for assessment toward the accountability end of the spectrum by expecting learning to take place in a way that lends itself to reporting. It further presumes that what is to be learned is what readers of the report find valuable.

This vision for assessment is already common. In 2010 Ewell and Kuh reported the results of a significant survey of institutions regarding their assessment practice. Of the 2,715 institutions granting four year degrees, (http://nces.ed.gov/programs/digest/d10/tables/dt10_005.asp) over 1500 were surveyed and 53 percent responded (Ewell & Kuh, 2010, p. 14). The authors report that most have at least some learning outcomes that are applicable to all undergraduates. Additionally, 92 percent attempt to gather a valid sample of their student body for use on at least one assessment measure, and of those, 76 percent used a national survey (p. 15). Nine out of ten also conduct some form of program assessment. Portfolios are the most common instrument, but of the eleven instruments mentioned, nine were surveys or interviews (p.16). Ewell and Kuh also found that when asked, institutions describe themselves as conducting assessment both to report to accreditors as well as to improve student learning (Ewell & Kuh, 2010 p. 19).

This data suggests that despite clear concerns to evaluate and improve learning at the programmatic level, assessment still primarily aims to target an institution's overall effectiveness. The chosen assessment instruments, like surveys, standardized tests, and portfolios, lend themselves to summative evaluations rather than formative. The study reveals that the most common process involves developing leaning outcomes, looking for valid ways to measure a valid sample across the university to against those outcomes, and reporting this data for accreditation purposes. Importantly, although Ewell and Kuh distinguish accreditation from other outside pressures, it is certainly the case that accreditation agencies themselves have become a clearing house for presenting and responding to those outside pressures (Brittingham, 2008; Eaton, 2007). The state of assessment indicated by Ewell and Kuh can thus be described as falling into terms that Gray helpfully calls objectivist and utilitarian, where what is to be learned is "knowable in advance, specifiable, measurable, and related to behaviors that can be directly observed" (Gray, 2002, p. 51). This is the kind of assessment leans toward the accountability end of the spectrum.

To faculty, assessment represents more than the implementation of a system that establishes goals, assesses progress, and produces reports, it seems most certainly to be used as a metric to evaluate faculty in terms of productivity and value. Hinton and McDowell encourage the prominent use of such standardized assessment measures to inform boards and presidents about individual departments. They contend that this information helps to identify weak departments by providing quantifiable data about job performance (Hinton & McDowell, 2012) or program effectiveness (Banta, 2005; Banta 2007). Middaugh provides a more detailed prescription for measuring faculty productivity. He argues that the college program (or major) is the essential level of assessment, but by which he means an evaluation of the cost of faculty relative to their number of general education students and majors served, the earned income from instruction, degrees granted, and the amount spent on research and instruction (Middaugh, 2010). These kinds of calculations are not new, but their inclusion in the language of assessment shows that accountability is the most attractive end of the assessment spectrum when institutional effectiveness is measured in the terms of the Spellings report concern for the high cost, lack of efficiency, and poor entrepreneurialism of universities.

This kind of assessment incorporates measures of finance, productivity, and economic value and indicates that the market is more than a context within which universities operate but has become one of their primary evaluators. Lock and Lorenz (2007) employ the concept of postdemocracy (borrowed from Crouch, 2004) to argue that universities, like other public institutions, have been handed to the regulation of the free market. This empties them of much of their democratic oversight and service. They argue that the demand for education to serve the knowledge economy (one made by the Bologna Process and that the Spellings Commissioned later echoed) might connote the need to educate students for economic performance, but it more directly indicates a desire of the markets to economize the transmission and production of knowledge (p. 412). Evans similarly argues that the management tools of the market economy have been forced upon higher education, particularly in the interaction between the student and teacher. The professor is held accountable for departing knowledge as a measurable commodity to the student (Evans, 2011). Given this drive to use assessment as a measure of institutional effectiveness in economic terms, it is not difficult to see why faculty perceive it as a threat to the university as an institution. Birnbaum, for example, wonders whether this outside pressure on universities will bring about the end of shared governance. It may be that for those within universities, shared governance appears to be working through the coordinated discussions and

efforts by different institutional units. But, for those outside the university, it is precisely these processes that leave higher education unable to respond quickly and creatively to the changing needs of the market environment that education finds itself (Birnbaum 2004). Thus, faculty see a clear implication of this form of assessment to be an effort by the markets to think of education as a commodity and then to divorce it from the professor who thinks of himself or herself as an (expensive) creator and caretaker over a body of knowledge. In this way universities can be entrusted to those who will govern them better, that is, to those who can operate them more economically.

This brief description of the assessment for accountability paradigm shows that it has powerful backers: the state and federal governments, important outside constituents who expect reports, and the economic forces of the market. Can faculty hope to resist such pressures?

One of the most powerful resources that university faculties have available to them is the practice of assessment for student learning and ensuring an effective role for faculty governance within the process of higher education will mean appropriating it. This paradigm predates the contemporary focus on accountability and is generally dated to the publication of *Involvement in Learning* in 1984 as a clear, national call for the role of assessment within university education (Ewell, 2002). But, answering the assessment mantra common to workshops and faculty meetings that ask faculty members to decide on what they would like students "to know and do" is insufficient for this appropriation. Assessment that improves student learning requires the evidence needed for ongoing decisions that respond to the relationship between the curriculum and student performance. Walvoord is right when she says that we are going to make these decisions in one way or another, but it makes sense to have as much data as possible when doing so (2010, p. 11). Professors naturally gather at least some data about their students within a course, but assessment attempts to systematically collect and analyze enough data to reinforce the educational process itself. Furthermore, some change of perspective is required because assessment for learning examines not only courses—where the faculty are most comfortable—but the programs to which those courses contribute.

The assessment for learning paradigm focuses on the learning outcomes that are rooted in the academic disciplines. The outcomes are dynamic, doing much more than setting goals for the purpose of reporting achievement. They set goals for students and programs that are also representative of inquiry itself in that they are open-ended. Proper outcomes are open-ended and "grow" as the skills of the students do in that universities view education as the acquisition of content as well as the ability to apply methods that generate that content. This paradigm does not fear to examine the skills and knowledge that students actually demonstrate but does so for both formative and summative purposes. Most, and the most meaningful, assessment is formative in that it is done throughout a period of instruction as a way of knowing what the student is learning and what the instructor might do to maintain or improve that learning. Thus, formative assessment concerns itself with learning styles, teaching strategies, meaningful and creative assignments, ways of providing teacher feedback, and the structuring and presenting of learning material. Its foundational conviction is that increasing teaching effectiveness through formative assessment leads to greater student learning. In addition to being formative, assessment also makes summative evaluations. In this case, students are asked to produce definitive evidence of what they have learned, which is then compared to expectations for competence in a field of study. In courses, this often takes the form of examinations or term papers. At the program level, students may take a nationally normed test, present the results of research paper or project, or present a portfolio of representative work.

Although learning outcomes are essential, assessment does not rely on outcomes for their own sake but for their role in helping move students toward proficiency of the knowledge and practices within a field of study that entitles them to a credential. The language of program goals and outcomes easily obscures the necessary and always present relation between the professor and student that impacts whatever data might be collected. Academic disciplines are not independently exiting bodies of objective knowledge that establish their own indicators of competency and standards of value. Instead, they are various methods of inquiry and the insights that result from them. When done well, assessment recognizes that disciplines are the products of investigators, often university professors, who continually make explicit or implicit judgments of value that guide them in their research and in their decisions about what is to be presented, in what way, and through what assignments. This dynamic is embodied in various ways that range from the topics of the courses that a department might offer to the texts and theories that individual professors choose to teach or ignore. This value-laden interaction between professors and students ensures that assessments cannot interpret themselves and that the changes that might improve student learning are best made by educators who investigate, understand, and present their discipline.

Still, assessment for learning cannot be said to be complete until identifiable changes have been made to improve what and how students learn. Once formative and summative assessments have been conducted, the data is used to determine how effectively students are reaching the necessary standards for this goal and how this might be improved.

These same insights about formative assessment, summative assessment, and the complex nature of the investigation and teaching of academic disciplines are already embedded within the teaching profession. At the same, developing these insights provide the faculty with their best response to assessment as accountability. How?

Faculty, by embracing assessment on their own terms, can strengthen their role of university governance, a format that is traditional to the institution of higher education. Describing governance is surprisingly difficult and a variety of frameworks have been employed to try and do so (Kezzar & Eckel, 2004). In perhaps the classic formulation, it describes the functional relationships between the faculty departments, administrators, and external constituents (Richardson & Smalling, 2005). Faculty particularly value the more precise notion of shared governance that prescribes the rights and responsibilities that belong to these different units serving the university. It creates a balance of power that allows different groups to exert influence where they are most concerned but not without being checked by other university departments. This form finds its traditional expression in the American Association of University Professor's statement on shared governance (1966).

For faculty, governance means applying their competency in areas of curriculum, tenure, and promotion (Richardson & Smalling 2005). In an attempt to confirm this expectation, the Center for Higher Education Policy Analysis conducted a survey of higher education faculty and administrators and the results are revealing for assessment. It found that 70 percent perceived the greatest faculty influence in these traditional areas. However, the reported concluded that a significantly low number of faculty (64% at four year institutions, and less than 60 percent at Master's and Doctoral granting universities) believe they have little influence over the evaluation of academic programs (CHEPA, 2003). Yet, as has been seen, it is precisely at the level of the program where assessment for accountability is most threatening. Thus, a clear strategy for faculty to maintain and even increase their role in governance is to tie their control of the curriculum and of standards for faculty competence with their teaching activity. Faculty already

work within this implicit relationship, but the practice of learning how to assess makes it explicit and provides evidence of its importance. In other words, by maintaining control over the method, measures, and interpretation of assessment results, faculty will be vitally involved in what is reported to university constituents who value assessment for what they believe it says about efficiency and effectiveness. Following through on this strategy will mean employing the following practical activities, some of which are extensions of current ones while others call for new investments in time and energy.

First, it is essential that faculty *understand the purpose of learning outcomes and the importance of an educational taxonomy when writing them.* Learning outcomes are already common elements on course syllabi and program evaluation reports, but it is critical that these outcomes be properly written (Suskie, 2009 is an excellent introductory resource). Otherwise faculty will face difficulties in developing and evaluating assignments that seek to move students toward these outcomes. Such outcomes will describe in broad terms the activities students perform and not the material instructors present. Employing an educational taxonomy (such as Anderson & Krathwohl, 2001; Marzano, 2001) can help instructors conceive the kinds of operations students must engage in to reach learning goals and are therefore helpful for both writing outcomes and designing instruction in ways that are align with one another.

Next, faculty must em*ploy classroom techniques that have been shown to improve learning*. While there will always be a place for the traditional college lecture, it is also important to engage students in additional active forms of learning. There are many texts that provide university professors with practical and appropriate techniques for active learning (Barkley, 2009; Claxton, 1987; McKeachie & Svinicki, 2006) effective collaboration (Barkely, Cross, Howell, 2003; Fink 2003), and critical thinking (Walsh & Sattes, 2011; Brookfield, 2011). Strategies for active learning help instructors teach, which in turn, leads students to achieve more successfully the learning outcomes that assessment will measure.

Using assessment as a tool for faculty governance also requires that faculty *conduct formative classroom assessment with documentation in mind*. To do this, faculty must first understand the structure of learning outcomes within a program. That is, how do the outcomes of individual courses contribute to the learning outcomes of a program? When faculty can design classroom assignments that lead students to employ the knowledge, skills, and thinking of a particular discipline, the evaluation of those assignments become evidence for how effectively students are moving toward the desired credentials a program will eventually bestow. At the same time, and of equally importance, those same evaluations can be used to enhance further instruction. Faculty already develop and grade assignments as a matter of course. Doing so with an eye toward using this activity as a way of documenting teaching and learning ensures that faculty themselves establish their teaching effectiveness using the methods and measures they deem most appropriate. When faculty establish the outcomes for student learning, and provide evidence that student learning is moving toward these outcomes within classrooms, they reduce the risk of outside stakeholders imposing external measures of productivity or success. Angelo and Cross (1993) and Diamond (2008) are excellent starting points.

In addition to classroom assessment, faculty must *plan the placement of summative assessments at key points in a program and document the results.* Faculty governance relies on the expertise of the faculty to determine when students have met qualifications that credential them as practitioners of the disciplines they have studied, so it is in the interest of the faculty that students be able to perform what the credentials suggest that they can. Since many courses are required to initiate a student into a field of study, it is important that programs design summative

assessments that are outside particular courses and that ask students to demonstrate that they have achieved program learning outcomes. The results of these assessments must be documented for the same reasons that classroom assessments are: to improve student learning and to demonstrate the effectiveness of faculty relative to the program of study. General examinations, national credentialing examinations, thesis papers, and portfolios are all examples of summative assessment. While summative assessments may mean surrendering some control of the assessment instruments in disciplines that have relevant national benchmarks, faculty need not rely solely on these external measures. Assessing at additional points in the program, such as at the end of the junior year or midway through the sophomore year, provides additional information that help to contextualize the efforts of both students and the faculty throughout the program. An introduction to the bibliography of program assessment and of the concerns it must address may be found in Astin (1993), Banta and Jones (2009), Dunn, Baker, Halonen, & McCarthy (2011), and Middaugh (2010). At the same time, Diamond (2008) provides strategies for faculty to conceive of program assessment on their own terms.

Adopting these recommendations will mean that faculty will have documentation about student performances at both the course and program level. This data is meaningless unless faculty *schedule formal meetings to interpret assessment results and then to make recommendations for maintenance and change.* Of the practices being suggested, this is perhaps the most novel and time-consuming. It requires the faculty to take an honest look at their program in order to find where it is helping students to succeed and where it can be improved. This means looking for patterns about student performance in coursework relative to summative assessments. It also means asking questions about the validity of assignments, the helpfulness of instructor feedback, and the need for changes in curriculum or in its presentation. Any self assessment is difficult, but this one is the more challenging because faculty are rarely formally trained in program evaluation. While it may not be necessary to conduct statistical analysis, it will be important to develop a systematic and valid way to look at the formative and summative data that had been collected. Although difficult, this step is critical because it demonstrates that the faculty who teach courses and administer programs take seriously their essential role in interpreting assessment results. By taking active control of this process, faculty deny the attempt of others to do so. At the same time, they furnish themselves with data and make decisions that demonstrate their active engagement in effectiveness in the institution in terms of their own disciplines and through their own agency.

Long term trends are important for establishing the effectiveness of any large institution. Faculty who r*eport and monitor on the progress of assessment over time* strengthen not only their teaching but their claims for governance. Monitoring assessment results with the express intention of improving learning will lead programs to educate more successfully. This, in itself, provides faculty with a strong position to maintain their role in university governance. However, it also provides them with important documentation useful for responding to outside stakeholders when questions are raised about the productivity of the faculty, their concern for institutional effectiveness, and most importantly their role in helping students achieve demonstrable learning outcomes.

Up this point, it has been suggested that faculty make use assessment to improve their role in the university as an institution guiding higher education. Such a strategy involves concrete activities. First, understand the purpose of learning goals and the importance of an educational taxonomy when writing them. Then, employ classroom techniques that have been shown to improve learning. Afterwards, the faculty must conduct formative classroom

assessment with documentation in mind as well as Plan the placement of summative assessments at key points in a program and document the results. This must be followed by formal meetings to interpret assessment results and then to make recommendations for maintenance and change. Finally, assessment cannot be said to be complete without reporting and monitor the progress of assessment over time.

What are the consequences for faculty if they refuse to appropriate the assessment for learning paradigm? Since assessment will continue to be the primary instrument of measuring institutional effectiveness, faculty will most certainly be responsible for meeting the assessment as accountability structures that university administrators and outside constituents believe will give them feedback on student performance. Perhaps more damaging, however, will be the various strategies of resistance faculty may take up in response to the increasing culture of accountability. When threatened by loss of governance or of curricular intrusion, faculty will either intentionally or indirectly employ their expertise and critical training to resist. The result easily leads to what Heifitz (2009, as cited in Crellin, 2010), terms adaptive failure—a resistance to change by "diversion of attention and displacement of responsibility" (Crellin, 2010, p.79). In terms of assessment, this might mean focusing on time or logistics, the symbolic nature of authority structures, and the impact on already heavy workloads. Or, faculty may single out only one dimension of its practice. Like all complex processes, assessment when critiqued along its natural fault lines loses its integrity and efficacy. Thus, faculty may focus only on the time needed to analyze results or produce reports or may argue against the value of assessing students in the humanities when what is desired is a change of values or vision about the world or on the authority of outsiders to determine how to measure the faculty's areas of expertise. Additionally, they may refuse to learn new information, contribute to ongoing change, or may sit in meetings and refuse to be engaged.

The diffusion of authority to departments and sub-units that characterize many colleges and universities easily spreads adaptive failure. If assessment is implemented along lines of vertical authority form administrative offices down, it will need to be done effectively many times, once for each department and subgroup. The resistance of even a small minority or sufficiently sized groups is enough at the very least to reduce morale and, more problematically, to impair the validity of the assessment instruments adapted by the university—a reality of which faculty are quite conscious and employ in a feedback loop of adaptive failure.

Ironically, these strategies of resistance are likely to be self-defeating. By impairing the ability of an institution to respond effectively to the current climate of accountability, faculty endanger their most valuable resource—trust. State and federal governments fund universities, employers rely on their credentials, and parents invest in them, because they are trusted to transmit effectively the knowledge and values of a society. When this trust is placed at risk by the perception that faculty are unwilling to be accountable, their resources and ability to attract students are put at risk. But perhaps of most important, in their attempts to subvert systems of assessment that they feel may damage their role as experts and guardians of credentials, faculty ironically ignore the useful insights that formative and summative assessment may provide educators. Assessment, first and foremost, seeks to improve teaching, but the documented evidence that assessments for learning produces cannot help but lead faculty into strong positions from which they can make powerful contributions to the contemporary conversation about higher education today.

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OPTIMIZING LEARNING IN PROJECT-BASED CAPSTONE COURSES

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ABSTRACT

This paper addresses the design and implementation of project-based capstone courses in undergraduate and graduate management education programs. A team project methodology is proposed that involves collaboration with an external sponsoring organization and focuses upon such issues as strategic analysis and development, remediation of organizational problems, product development, entrepreneurial start-up, not-for-profit organizational development, etc. Key elements discussed include high level educational goals for the capstone, criteria for project selection, processes for sponsor relationship management throughout the project life cycle and the facilitative role of faculty in such experiential learning. Other methods that optimize learning in the areas of leadership development and team process learning are also described.

Keywords/Descriptors*: Business education, capstone course, experiential learning, problem-based learning, project-based learning.*

INTRODUCTION

Students, employers, accrediting agencies, and those financing higher education increasingly challenge educators to demonstrate learning outcomes worthy of their substantial investments. Traditional academic methods using textbooks, lectures, case studies and other didactic learning approaches all play a potential role in addressing this challenge. Nevertheless, upon completion of a degree program, these stakeholders also want to know that the student can actually integrate and apply what they have learned in the "real world". A recent survey of employers in the Chronicle of Higher Education supports this notion (Maquire Associates, 2013). This study showed that employers preferentially valued a student's real world experiences relevant to the challenges of the employment context versus evidence of time spent in classroom activities, reading assignments, essays, discussions etc. Employers want to know if the student can actually use the knowledge gained in such activities.

This paper explores one method for promoting learning grounded in this real-world experiential context - the Project-Based Capstone Course. Although the present analysis is drawn from a management education context, educators in other disciplines such as engineering, education or health care could also apply the approaches outlined herein. Topics discussed include delineation of capstone courses goals, criteria for project selection, processes for sponsor relationship management throughout the project life cycle and the facilitative role of faculty in such experiential learning. Methods for promoting leadership development and team process skills are also described.

WHAT IS A CAPSTONE COURSE?

Most programs place capstone courses at the end of the curriculum and emphasize integrative problem-based learning versus a more passive "content acquisition" approach (Elam & Spotts, 2004; Wood, Smith, & Powell, 1995). Professional schools often utilize a consultative project, simulation or other experiential process (Razzouk, Seitz, & Rizkallah, 2003; Zechmeister & Reich, 1994) as the heart of the educational endeavor. This experiential learning context challenges students to address "messy" problems in realistic contexts. Here students have to understand multifaceted problems within the frame of their own mental models rather than that provided by the professor or other text materials. As such, these courses rely upon a constructivist approach to learning (Springer & Borthick, 2004) in contrast to more traditional "sage on the stage" pedagogy. As Davenport et al noted, useful knowledge derives from information combined with experience, context, interpretation and personal reflection (Davenport, De Long, & Beers, 1998). These are the hallmarks of a superior capstone experience. These courses treat learning as a search for better ways to act versus a sole emphasis upon lower order learning outcomes (Cavaleri & Fearon, 2000). In addition to their learning potential, such project-based courses are highly motivating to students, encouraging them to become active participants rather than passive spectators in the learning process (Humphreys, 1981).

WHAT KINDS OF ACADEMIC PROGRAMS USE CAPSTONE COURSES?

Professional schools such as business, engineering, information technology, health care and education often place the capstone as the culminating experience in their respective degree programs. In management education, such courses may focus on strategy and business policy(Leontiades, 1979),(Greiner, Bhambri, & Cummings, 2003), accounting (Jervis & Hartley, 2005; Johnson & Halabi, 2011), entrepreneurialism (Boni, Weingart, & Evenson, 2009; Gilbert, 2010), public administration (Bowman, 1989), management information systems(Wright, 2010), economics(Brooks & Schramm, 2007) or ethics(Hensel, 1990). Similar courses appear in schools of education(Brown & Benson, 2005; Kerrigan & Jhaj, 2007) and engineering programs(Gnanapragasam, 2008). These references should allow the reader to explore capstone methodologies relevant to these common focal areas.

BASIS FOR ANALYSIS AND ASSOCIATED RECOMMENDATIONS

The analysis and recommendations in this paper are based upon the author's experiences teaching capstone courses at both the undergraduate, graduate and executive MBA levels since 1988. Approximately 180 team projects were supervised during this period. These projects were central elements of the capstone management courses conducted at the Helzberg School of Management at Rockhurst University in Kansas City, Mo. Typically, these courses contained approximately 25 to 30 students and were conducted over the course of a 16 week semester.

During this time, the author collected qualitative and quantitative assessment information from a variety of sources. These sources include formalized end-of-course surveys, student interviews, specific surveys designed to assess various elements of the capstone process, course embedded assessment activities and, more recently, assessment conducted by external executives interviewing capstone graduates to ascertain learning outcomes.

In the following sections, we will explore some of the clear patterns that have emerged in this 25 year experience base. The reader can view the methodology used here as a kind of longitudinal or composite case study based upon these collected observations in combination with data from other capstone practitioners as documented in the literature referenced herein. The paper's goal will be to highlight lessons learned with the hope that other academic practitioners might find practical approaches relevant to their own curricular needs. Given the relatively broad scope and practical emphasis in the paper, the author did not emphasize empirical hypothesis testing, but rather sought clear and consistent patterns that have emerged over this 25 year experience base as documented by the data sources noted above. Where possible, these observations are cross validated by reference to other research focusing on the capstone course methodology.

Although this paper uses examples in the management education context, many of the goals and recommendations forwarded here have application to other disciplines to include public administration, management information systems, engineering and other associated professional fields.

In the following sections, we will focus on a student team project as the primary vehicle for course learning in the capstone. Such projects typically involve a team comprised of 4 to 9 students who interact with a sponsoring organization in a collaborative relationship to address real world problems or opportunities relevant to the sponsoring organization. These courses also provide project focused "just-in-time" learning resources to include targeted readings, faculty tutorials, external consultants and access to other specialized faculty with skills relevant to the specific project.

The project life cycle shown in the next section will structure our discussion of recommended educational methods. We begin with a discussion of the goals of the project-based capstone and then discuss methods for designing and facilitating each of the project life cycle stages to optimize learning outcomes in light of the noted goals.

The Capstone Course Project Life Cycle:

1. *Determination of project learning goals*
2. *Sponsor acquisition and project selection*
3. *Definition and refinement of project scope*
4. *Problem analysis (i.e., primary and secondary research)*
5. *Presentation of recommendations*
6. *Project closure & assessment*

Capstone Learning Goals

Within the capstone course, professional schools typically place emphasis on the specific skill development areas central to the challenges of the professional discipline. For example, business programs might strongly emphasize competitive strategy while engineering capstones might emphasize project management methodologies. Although such profession-specific goals have impact on capstone design, it is possible to forward a set of general or "meta" educational goals that are common to project-based capstone courses in a variety of educational contexts. These goals are important in our present analysis because they represent key optimization targets for the capstone learning experience regardless of discipline.

Capstone Project Meta Goals

Goal 1: Focus learning on problems or opportunities in real world contexts
Goal 2: Challenge students to select and apply relevant theory/knowledge
Goal 3: Integrate knowledge and multiple theoretical perspectives
Goal 4: Promote individual personal growth
Goal 5: Develop leadership and team process skills
Goal 6: Create an experience that serves as a rite of passage

The following sections characterize the key elements of each of these high level goals and discuss ways in which learning outcomes can be optimized through the initial design and selection of appropriate capstone course projects. The author also asserts that the project-centric capstone course is an ideal educational vehicle to optimize these high-level learning outcomes in comparison with other educational methodologies that may be used in the capstone context. These other alternative approaches include simulation (Ganesh & Qin, 2009; Hanlon, 2008; Springer & Borthick, 2004), case study (Harper, Lamb, & Buffington, 2008), (Schee, 2009; Segev, 1988)and traditional lecture - discussion based courses. The author will also describe some of the typical problems that can arise that may impede success on each of these goals and suggests methods for mitigating such problems.

Goal 1: Focus learning on problems or opportunities in real world contexts

In problem/opportunity-based learning students are placed in a "real world" context and challenged with ill-defined or "messy" problems that often defy formulaic solutions. In this section we will examine the value of such real world learning contexts and explore some of the problems that can arise in choosing project sponsors, defining project scope and dealing with common problems that arise in this challenging and dynamic learning context.

In contrast to case studies or even simulations, the real world project context places students in a human drama involving multiple "flesh and blood" stakeholders. Student

interaction with the client organization places the learning in an organic context where such issues as communications dysfunction, differing mental models, and other complex organizational realities characterize the project experience. In this scenario, organizational leaders in the sponsoring organization have interests, biases, personalities and motivational vectors that play out in the course of the project. Another significant dimension of this learning context is that stakeholders often have substantial interests at stake - the project may have real consequences for them. This is inherently a less tidy and more realistic world than is often found in case studies or simulations. The project basis for the capstone forces students into a situation where they must construct valid mental models and often face highly ambiguous circumstances.

Such situations can be a bit scary to students, but certainly provide insights about organizational dynamics that students will likely face again in their professional lives. In fact, end-of-course assessment surveys often express student satisfaction with the fact that the experience was real for them and their analysis and recommendations had the potential to make a real difference in the sponsoring organization. In some instances their work was reviewed and applauded by the very highest levels in Fortune 100 firms. Such potential for real impact is one of the features of the capstone project that is highly valued by students.

The Importance of Vetting and Socializing Project Sponsors

The author's experience and assessment data shows that student learning outcomes are critically influenced by the choice of project sponsor, the specific focus of the project and the role expectations of the project sponsor. One way in which the role expectations of the sponsor can be shaped is by using the term "sponsor" rather than "client" as this acknowledges the mutually reinforcing goals of student professional development in conjunction with the value returned back to the sponsoring organization. When project sponsors are carefully vetted and socialized as noted below, sponsors are more likely to see that their investment in promoting student learning often returns value to them in the form of better analysis and conclusions. To foster this high performance collaborative relationship, the course facilitator should make every effort to socialize sponsors before the outset of the project to make sure that they understand the goals for the project and are cognizant of the specific ways they can support the learning process. These discussions should also seek assurance from the sponsor that have the time to commit to the project, that they are willing to share their "dirty wash " with student teams (this necessitates a confidentiality agreement) and they understand the overall capability of the teams to produce value within the limited 16 week runtime of the project. The author has developed a series of document templates designed to communicate these various goals and processes of the capstone project in the exploratory, project contracting, project execution and debriefing phases of the project life cycle.

One common sponsor-related problem is that the sponsor may have unrealistic expectations for the typical student group. To shape realistic expectations, sponsors should be informed that student teams are, in fact, not consultants in the usual sense of the word. In the author's particular educational context at the graduate level, students are typically

perhaps 25 years old, they are likely working full time and attending classes during the evening. This means that their project related activity often occurs on weekends or late in the evening. Although communications with the sponsor highlight the high performance potential of typical project teams, this author tries to honor the adage, "*under-promise - over-deliver*".

Another reality to be discussed with the sponsor is the relatively short duration of the project (16 weeks). When one subtracts the inevitable ramping up of project activities and the time needed for project presentations, students have about 10 to 12 weeks to complete the project. These time constraints should be discussed as the facilitator and sponsor plan the initial project scope.

To reach a mutual understanding of these project features, the author often spends perhaps an hour discussing these issues with the sponsor either telephonically, through a video teleconference or, ideally in person. Such communication is followed up with a document that overviews the project process and addresses the issues noted above. If the prospective sponsor desires it, previous project sponsors can be made available to share their past project experiences. Assuming that the sponsor decides to move ahead with the project, a letter of agreement is drafted and signed.

Criteria for Project Selection

Although vetting of the project sponsor is an important part of organizing the capstone project, another criteria for project selection is that the project should have an appropriate level of complexity. Although the nature of this complexity will vary from discipline to discipline, in the author's situation, ideal projects focus upon issues of strategic importance to the sponsoring organization. Rather than focusing upon highly detailed issues of a technical nature, students are challenged to grapple with multifaceted problems that often cut across organizational boundaries. Start-up entrepreneurial projects can also provide rich learning opportunities because these organizations are usually small enough so that students come to appreciate the organization's operations as a whole. Given the typical capstone goal of disciplinary integration, such projects can yield substantial learning in the dynamic startup context. Business accelerators and or incubators can be great sources for such projects and the sponsors are often highly motivated to work with students given their relative paucity of resources at this stage of their development.

Another dimension of appropriate complexity relates to what might be termed the stakeholder ecology of the sponsoring organization. Frequently the author finds that many inexperienced students may not appreciate the inherently political nature of organizational operations. Student interaction with internal and external stakeholders in the organization can promote learning by illuminating the interplay of stakeholder interests and the often complex trade-offs inherent in many organizational decisions. Such interaction also teaches the value of negotiation skills as the organization seeks to influence these various stakeholders to accept their project recommendations.

On selecting the appropriate level of challenge - Can a project be too complex?

Although an appropriate level of issue complexity is an important project criteria, sometimes the team will find itself grappling with a highly complex and potentially impenetrable problem that emerges as the central issue in the project. This seeming intractability can lead to a lot of student frustration and the perception that the team is simply "spinning its wheels" with little hope of sponsor benefit or useful learning. In this situation, the sponsor may also begin to lose interest as they may come to believe that the team has little to offer them. Although this situation can often be avoided with careful project vetting and scope definition, sometimes capstone projects are emergent and inherently exploratory. When project teams find themselves in such situations, the instructor should recognize that this frustration and potential panic on the part of the team, in fact, represents a learning opportunity.

In such situations, the facilitator should work with the team and sponsor to adapt or redefine project scope in a way where learning can continue. Facilitators can note that organizations often struggle with such problems that can frustrate the most skilled leaders and managers. The key learning opportunity is to explore how a team can pivot in such intransigent situations to find other ways to contribute value and to do so quickly with a minimal amount of friction and unnecessary "whining". This can be an outstanding lesson for "straight-A" students who may have otherwise glided through all their courses without ever having to address such "messy" real world challenges. Much like the greenhouse plant set out to adapt to a brutal outdoor environment, here the individual student and the team can practice and test strategies to respond to such exigencies.

In such situations, the course facilitator should structure opportunities for individual and team reflection and emphasize the value of learning how to adapt to situations where you feel stuck. In this scenario asking, "What can be learned here?" opens the door for growth and development. It is also essential for students to realize that, ultimately, the goal of the capstone process is not necessarily "solving the sponsor's problem per se". Such an outcome would be is ideal, but it is not necessarily the most important learning outcome of the course. The course facilitator should always stress that the student's individual learning is the super-ordinate goal. In fact, the author has seen many projects where substantial learning occurred even in those situations where students were unable come up with effective solutions to the problems initially central to their project. The facilitator should help students frame what they have learned in such projects and, at the same time, communicate with the sponsor to help them better appreciate the ways in which students benefited from the sponsors investment in time and energy. By providing the sponsor with insight into these student learning outcomes, the sponsor comes away from such less than optimal engagements at least knowing that they contributed to the student's professional development.

Goal 2: Challenge students to select and apply relevant theory/knowledge

Another capstone goal is the **application of relevant theory and discipline-based knowledge** to all aspects of the capstone project. Students should be encouraged to select those tools, perspectives and theories learned in previous classes and apply them in ways providing the most utility in the project context. In this applications process, students gain a greater appreciation for the relative power and inherent limitations of the such tools.

When teams offer recommendations to the sponsor at the end of their project, they have an opportunity to come to a deeper understanding of the many ways in which organizational decision-making may be less "rational" than students might otherwise expect. When a sponsor rejects their carefully analyzed recommendations, this experience reinforces understanding of such phenomena as satisficing in decision making and the ever present impact of perceptual biases and dysfunctional cognitive heuristics (Bazerman & Moore, 2009; Kahneman, Slovic, & Tversky, 1982). Students also learn that organization's have limits to their capacity for change.

An additional way to create opportunities for students to apply theory and other tools is to design a section of the course where it is possible to introduce "just-in-time" educational modules that are directly applicable to project issues. Sometimes these modules may be reviews of previous course content and other times new concepts and theories might be introduced. The ultimate goal here is to offer realistic context where these ideas and tools can be exercised and evaluated.

Sometimes any given project may not necessarily afford opportunities for students to apply important skill sets gained in previous coursework. An example might be a student majoring in finance who is not able to exercise the array of financial tools learned because the project has minimal financial elements. This is a fairly common occurrence as sponsoring organizations may want to avoid providing full access to all their financial information, a challenge particularly prevalent with privately held sponsoring companies. To address this challenge, ideal projects often contain multiple dimensions to the problem or opportunity being explored. We will return to this challenge in the next section on integration.

In terms of student assessment and grading, it should be noted that a grading rubric is utilized that specifically measures application of theory and previous course content. Although beyond the scope of this paper, the author has found that the capstone course provides a terrific opportunity for assessing courses upstream from the capstone experience. For example, if students face a problem best understood through the lens of organizational behavior (OB) and yet are unable to apply their OB coursework, then one can assume that there are potential problems with the upstream course or curricular sequencing.

Goal 3: Knowledge and Theory Integration

Another meta-goal in the capstone process is the **integration of knowledge** gained from a variety of discipline-based courses coming before the capstone experience. As Carlson and Bolton note, "a capstone course should give students a sense of coherence of

their program of study in a discipline and should deepen their appreciation of the discipline as an approach to specific problems"(Carlson & Peterson, 1993). The capstone experience should also be designed to help students see relationships between the various sub-disciplines they have studied in the curriculum (Marshall, Bolten, & Solomon, 2000). If properly designed and implemented, one study showed that the capstone course was five times more effective than any other format to help students integrate their learnings and academic experiences (McCambridge & Thornton, 1994).

To promote learning integration, projects should be chosen that afford an opportunity for students to utilize multiple skills sets and knowledge gained in previous discipline- based courses. As noted earlier, in the entrepreneurial context, the student team can make contributions in a whole range of discipline areas to include marketing, supply chain management, global issues, information technology etc. The key here is that the real organizational context of the project allows students to view any given discipline or functional area within the holistic organizational context. In contrast to academic courses that focus on a specific disciplinary lens and/or set of tools, here students address problems and opportunities that often defy disciplinary categorization.

One method the author has used to encourage learning synthesis and integration is for the project team to structurally differentiate itself into different functional areas such as information technology, media design, market analysis, financial analysis etc. This structural differentiation affords student learning regarding the interplay between each of these functional perspectives. Learning can also occur in those circumstances where the team *fails* to integrate their insights and associated analysis in each of these subspecialties. Needless to say, this challenge of cross functional integration vexes many organizations and early lessons in this area can save a lot of frustration in one's later career.

One other method for optimizing learning integration is to provide students with a carefully selected set of analytical templates designed to illuminate various organizational phenomena. Such templates encourage students to approach problems from multiple analytical perspectives versus focusing specifically within the domain of greatest comfort to the student. The McKinsey 7-S Model (Peters, 2011)is one example used by the author. When students analyze internal organizational strengths and weaknesses, this model deepens insights relating to issues of organizational structure, metrics, leadership, motivational dynamics etc. For students focusing on technical disciplines like accounting, IT or finance, this tool helps broaden understanding of the internal organizational dynamics influencing organizational initiatives in the sponsoring organization. Stakeholder analysis tools can also be useful in the problem analysis stages of the project to promote appreciation of the often complex external stakeholder dynamics influencing various aspects of organizational activity. Such tools can also help students identify interests, perceptions and motivational dynamics that will influence acceptance and possible later implementation of their recommendations. Although the reader will likely have their own favorite tools, these examples illustrate analytical models which have been shown to strengthen analytical rigor in the capstone project (Schwering, 2003).

Goal 4: Promote individual personal growth

Capstone projects also provide a significant opportunity for **personal growth and professional development** critical for high performance in the world beyond the classroom (Goldstein & Fernald, 2009; Zechmeister & Reich, 1994). Ideally, the challenging problem solving context of well selected capstone projects should help the student build self-confidence in realms outside the often antiseptic confines of the traditional classroom (Ramocki, 1987).

One method to optimize individual personal growth in such projects is for students to outline a personal development action plan at the outset of the project. These development plans can be informed by performance appraisal data for working students or 360 degree feedback such as might be provided by the Kouzes and Posner Leadership Inventory (Kouzes & Posner, 2010). This active engagement of the student in a personally relevant goal setting process has been shown to heighten learning outcomes in student projects of this sort (Grabe, 1986; Schunk & Gaa, 1981).This development plan should highlight individual strengths and areas for improvement that the student can address during the course of the project. Students can share these personal development goals with their teammates and encourage them to provide feedback supporting personal development. The author structures this feedback exchange into the last session of the class. One other mechanism promoting individual development is the requirement of a reflective essay at the end of the semester focusing upon individual lessons learned. Here the student revisits their initial professional development action plan and describes some of the kinds of insights, frustrations, and continuing developmental needs that have grown from their project experience.

Goal 5: Develop leadership and team process skills

Closely related to the goal of personal growth and professional development is the goal of **leadership and team building competency development**. Because so many capstone projects utilize the team structure, such projects provide rich learning opportunities as the team struggles through the various phases of the team lifecycle. Given this opportunity, courses are often specifically designed to optimize team process learning (Jervis & Hartley, 2005; Lueg & Molen, 2010).

It should be noted that the author does not attempt to manipulate project team composition other than a general approach to try to equalize the size of each group. Following individual sponsor presentations describing project opportunities, students mingle and negotiate with each other to form their student teams. This process has been shown to increase team performance and student motivation (Aller, Lyth, & Mallak, 2008). To afford some modicum of choice in these projects, more projects are cued up in the project portfolio than will actually be selected. Although this sometimes creates problems in terms of sponsors be disappointed by not being selected, it heightens student motivation because the students are able to work on projects of greater interest to them.

Another specific method used to promote learning in relation to the team and leadership development goal is to have each team formulate a team charter at the outset of their activity. Team members also discuss their own individual learning goals and attempt to build consensus around a set of operating values and team practices. This initial activity improves the performance of student teams and also sets the stage for further team process learning (Brownlee, 2012; Byrd & Luthy, 2010; Hunsaker, Pavett, & Hunsaker, 2011; Mathieu & Rapp, 2009).

One of the most significant methods the author has found to optimize leadership and team development is the use of a diagnostic survey that evaluates 30 attributes of team and leadership performance. This online survey is administered twice during the 16 week semester, once at the end of the first third of the semester and then again at the end of the semester. In the first iteration of this survey, teams are directed to produce a report of their diagnostic results and develop an action plan to build on their strengths and mitigate problems identified by the survey. Students report that they would have never attended to these team process issues had they not been forced to take the survey and discuss its results.

An additional technique is to request that teams keep a team journal describing team dynamics operating within their project context. One key component of this journal is the Plus/Delta technique whereby teams assess each meeting with the question: "*What were some plusses about what we did today as a team, and, what were some problems to which we should attend*?"

Goal 6: Create a rite of passage

The capstone course is often conceived as a kind of **rite of passage** bridging the student experience in the relatively cloistered academic situation with the vagaries of "the real world" (Wagenaar, 1993). In the undergraduate context, Durel notes, "the capstone course is a rite of passage that provides an experience in which undergraduate students look back over their undergraduate curriculum in an effort to make sense of that experience and look forward to building on that experience" (Durel, 1993).

The author has conducted capstone courses at both the undergraduate and graduate levels in the university business curriculum. This experience shows that the capstone course is a particularly salient rite of passage in the undergraduate context. At the end of the semester, the author often shares a luncheon with these students after grades have been submitted. In this setting, students often talk about ways in which the project built their confidence and encouraged them to take on new challenges.

One other method the author has used to create linkages between the collegiate experience and non-academic professional settings is a closure experience where executives from the community interview students in regard to the things they have learned in their project. Research shows that this ability to articulate the value of one's experiences is something that most employers value over a delineation of academic coursework (Associates, 2013). Knowledge that the project closes with this external assessment also strengthens student motivational expectancies (Driscoll, 1994).

FUTURE RESEARCH DIRECTIONS

Virtually all academic practitioners feel increasing pressure to provide proof of learning outcomes in the courses they facilitate. Although educators using project-based learning have published some assessment studies reviewing the effectiveness of capstone courses (see (Kerrigan & Jhaj, 2007)), we still lack methodologically rigorous learning outcomes data demonstrating that such capstones yield professional competencies valued outside academia. One way of assessing this competency development would be to actively engage the sponsoring organization or other external parties such as alumni or business practitioners in a process of assessing project-based student learning outcomes (Gnanapragasam, 2008; Linnan et al., 2010). The author has experimented with such a process, but this early attempt lacked the methodological rigor needed to firmly test the hypotheses in question. Related to this, it is sometimes possible to estimate the dollar value of any given student project based upon an assessment of the impact produced for the sponsoring organization. Although this economic valuation is clearly a proxy measure for learning outcomes, it does offer a way to quantify the value produced in such projects as measured by this monetization of value received.

Another assessment opportunity would be to explore the use of student or team portfolios as assessment artifacts (Jones, 1997; Kryder, 2011). These portfolios would challenge students to conceptualize and "market" their capstone learning in a way that might provide potential employers with a sense as to how the student might perform in realistic job contexts.

One additional future research opportunity involves harnessing the project-based capstone as a vehicle for assessing the overall performance of a given programmatic curriculum. As the capstone project challenges students with multifaceted and realistic organizational problems, it is possible to test hypotheses relating to learning outcomes in various areas of the curriculum. Such assessment data could then be fed back to faculty teaching upstream disciplinary courses in the hopes that their courses might evolve to better prepare students for these practical real-world challenges.

CONCLUSION

In this paper, the author has reflected upon lessons learned over twenty five years of capstone project facilitation in both the undergraduate and graduate business education contexts. Following the articulation of educational meta-goals foundational to the capstone experience, the author has also argued that a project-based capstone experience effectively promotes learning outcomes valued by students and potential employers.

Hopefully the reader has also gained some practical ideas on ways of optimizing learning within the experiential capstone and responding to typical problems that may arise in the project life cycle. Although these capstone courses are challenging to facilitate due to their inherent lack of predictability, they offer students an opportunity to test and hone their skills in preparation for their lives after graduation.

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CULTURAL CHALLENGES TO CONTENT AREA INSTRUCTION IN CHINA

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ABSTRACT

In this article, the two American instructors relate their experiences teaching a business curriculum at a higher education institution in China. Recent political and economic developments are chronicled in setting the stage for a discussion of cultural stereotypes which, in some cases, became barriers to teaching and learning. Focus is on the preconceived notions they arrived in China with and how those preconceived notions affected the design of their instruction. The validity of these notions was tested through a student survey and observations. The challenges faced when reality clashed with expectations is discussed. The research team included a Chinese lecturer who provides insights on the Chinese perspective related to the stereotypes identified.

Keywords: *China, Higher Education, Cultural Barriers, Stereotypes, One Child Policy, Andragogy, Geography, Face.*

INTRODUCTION

Historical Context

China, as a culture, dates back 6,000 years and is widely credited with the development of the first banking system, the first civil service exam (and bureaucracy), the first manufacturing of paper, the first wine recipe, and the first compass. Despite these advances, the Chinese Empire was left behind during the rapid expansion of the industrial age and the global colonization period of the eighteenth and nineteenth centuries. Plagued by fractional warfare, foreign invasions, and the rise of communism in the 20th century, China has been slow to arrive at the juncture of the globalized world (Frieden, 2006).

The late 20th century saw rapid economic development in Asia. The rise of the *Asian Tigers* ñ Korea, Taiwan, Hong Kong, Thailand, Singapore, and Malaysia ñ signaled the beginning of what some have called the *Asian Century* (Frieden, 2006). But it was not until after the death of Chairman Mao Zedong that China began to share in this prosperity. From a policy of strict communism, China moved to a market mentality encouraging entrepreneurship. The term commonly used by both faculty and students to describe China's current status is *developing nation*. China's acceptance into the World Trade Organization in 2001 evidences this fundamental shift in the official attitude towards globalization (Deans, 2011).

This new phase of economic development resulted in a meteoric rise of the Chinese economy, currently the second largest in the world and predicted to surpass the United States within the next 20 years. China is often depicted by the Western media as *The Factory of the*

World, which, based on an analysis of its financial statistics, would seem appropriate. China has the largest reserves of foreign currency of any nation on the planet, is the largest single holder of U.S. debt instruments, and has balance of trade that is the envy of the world (Silk, 2013).

These policies also brought millions out of a subsistence lifestyle and into a position in the global market, China began the migration from rural to urban populations and a middle class emerged. As the urban populations exploded, this middle class launched China into the role of massive consumer. In 2010, Chinese consumers purchased more autos and light trucks than the United States (Aggarwal & Goodell, 2011). In 2013, the popular *Singles Day* (a marketing holiday which began as a humorous college prank in opposition to Valentine's Day) generated 35 billion Yuan (approximately 5.7 billion U.S. dollars) in internet sales on the popular Alibaba online shopping websites alone (Mishkin, 2013).

A contributing factor to this increase in disposable income is the decrease in size of the Chinese family. Chairman Mao Zedong encouraged large families as a way to empower the country (Potts, 2006). This led to widespread poverty and famine. Following his death, the new regime, led by Deng Xiaoping, sought to reverse this trend and alleviate the community, economic, and environmental issues resulting from unrestrained population growth, by instituting a *One Child Policy* in 1979. While there are many exceptions to the policy, it has accomplished its goal as evidenced by China's population growth rate, currently at .46 annually, with a birthrate of 12.25 births per 1,000 population (China, 2013). In fact, the policy has been so effective that in November 2013, the Third Plenary Session of the 18th CPC Central Committee opened the path to two child families (Pinghui & Yu, 2013).

Education (R)evolution

With this new perspective on the integration of China into a global economy, the need for a shift in education became apparent and China has recognized the need for content-area education in English. In fact, according to research conducted under the auspicious of the Fulbright program (sponsored by the U.S. State Department), a trend is seen worldwide as developing countries seek education in business and economic specializations taught in English (Dautermann, 2005).

As a result, China has become more welcoming to foreign teachers (Zhao, 2013). The Chinese government has a robust program to recruit visiting professors for many of their universities. It is, in fact, unusual to find a Chinese University that does not have a visiting professor program. Increasingly, these programs are content-area as well as language acquisition. A study by Dautermann (2005) provides supporting evidence of this trend, observing that Chinese university administrators and well as students were deeply interested in improving both their English technical and business writing skills, to the point of establishing a teach the teacher program.

Geography (Just the who and where)

Jinhua Polytechnic (JHC) is located in southeast China, in the city of Jinhua, Zhejiang Province. The university serves approximately 23,000 students. In the public structure of Chinese higher education, JHC is a *tertiary college*, not a *tiered school*, as are the Normal Universities, and

therefore does not attract the highest performing students. To draw a parallel, that fails to consider the cultural or social aspects of geography, it is similar to an American career college or vocational technology program, but with student housing.

JHC's mission statement translates as: Unity of Theory and Practice, Pragmatic and Innovative. The major fields of study at JHC are nursing, information technology, business, finance, tourism/hospitality, and several applied engineering/mechanical programs. While students who pass the promotion exam are offered the opportunity to study two additional years at a higher level University and earn a baccalaureate degree, the majority of the students complete three year programs. These culminate in one or more national level exams in their specialization area(s) as well as the Practice English test for Colleges (PRETCO). Students who pass all of their courses receive certificates in their field; those who pass all of their exams and the PRETCO receive a tertiary (below baccalaureate) degree.

The Sino-American Accounting Project (SAAP)

In an effort to enhance their status and accreditation, JHC began actively seeking relationships with Western Universities. It should not be overlooked that these programs, by heightening JHC's reputation, would also increase their revenue. On the other side of the world, Kaplan University (KU) shared JHC's goals. Establishing themselves as an international school, and, more importantly, tapping into the largest student population in the world would accomplish both.

In 2011, after several years of negotiations, JHC's School of Economics and Management entered into a partnership with KU, establishing the Sino-American Accounting Program (SAAP). The mission of the School of Economics and Management translates to: Social Commitment and Diligence. The SAAP's stated purpose is to make use of the capabilities of both parties and to introduce the most update curriculum and teaching resources, in delivering the concepts of an American accounting educational program, and to promote cooperation in accounting and vocational training between China and the U.S.

The agreement stipulated that Kaplan would provide highly qualified foreign experts to JHC to teach both English language and business courses during the students' three year accounting certificate program. At the end of their JHC program, the highest performing students, rather than completing their bachelor's degrees in China, will transition to KU's Hagerstown, Maryland campus. Here they will complete a two-year business curriculum culminating in the award of a Bachelor of Science degree in Business Administration. While the school does draw students from all over China, the SAAP is restricted to students from within the province. The program currently serves 285 students. The first cohort of students are expected to transition to Hagerstown in 2014.

In the first year, the teacher exchange was limited to a single English as a Second Language (ESL) teacher; the remaining courses were taught by Chinese instructors. In the second year, a second ESL teacher and two business professors were added. Now, in its third year, the American staff is comprised of three ESL teachers and two business professors: The authors Cosgrove and James.

Cosgrove and James are responsible for the entire English-language business curriculum consisting of classes in accounting, corporate finance, taxation, Excel, economics, management, and public relations. Chinese lecturers teach parallel and complimentary courses in the students' native Mandarin, and also assist the U.S. instructors in the content areas. Zhao, one of these lecturers, completes the research team. Throughout this paper, references to "the researchers" or "the team" include all three members, while references to the "instructors" or "teachers" refer to the U.S. instructors only. All classroom observations are derived from the English-language business classes taught by the U.S. instructors.

Geography (Beyond the who and where)

While it may be quipped that "no matter where you go, there you are," geography is an important consideration in any endeavor. Geography deals with details that comprise where something is ñ such as longitude, latitude, elevation, climate, political boundaries, and population, among many others. Geography also examines the way in which people think, behave, and interact; how they are motivated, and how they respond to stimuli or incentives. This where involves sociology and culture (anthropology), and is especially important to consider when examining the perceptions of leadership and follower roles, designing course content, and planning the delivery of instruction.

A consideration of geography also requires one to consider their own preconceived notions about the *where.* While it is given that you cannot know everything there is to know about a new place, the American business teachers knew very little about this one, and most of what they did know turned out to be wrong. As a result (embarrassingly, but not surprisingly), the team encountered various challenges during their first semester. Several of these challenges lend themselves to academic research with the goal of improving the quality of education offered in such cross-cultural programs. To that end, the questions considered by the researchers were:

1. What preconceived notions do Americans have about the Chinese?
2. Are these stereotypes valid?
3. How do preconceived notions impact both students and instructors in the cross-cultural classroom?
4. What are the challenges in teaching business curriculum in English at a Chinese higher-education institution?

LITERATURE REVIEW

Studies as early as 1999 addressed the importance of understanding the cultural and educational context of teaching in China. Littlewood (1999) of Hong Kong Baptist University notes three areas of culture that impact on learning: Collectivist orientation, relationships, and achievement through effort. Littlewood (1999) concludes that failure to understand these aspects of culture will result in a decrease in teacher effectiveness.

Coggin and Coggin (2001), studied the impact of Chinese cultural norms and their effect on foreign teachers. The researchers considered the concepts of face, family, courtesy, and

etiquette. Based on their personal experiences teaching in China, the researchers concluded that consideration of these issues are far more important in China than they are in the US.

In 2004, Brand conducted a cross-cultural study of students from China, Australia and the United States. Brand (2004) concluded that that Chinese students differ from Western students in their conception of self as it relates to self-esteem. Specifically, Chinese students exhibit a lower level of self-esteem when compared to their Western counterparts. A similar study by Chinese researchers Pan and Zhang (2004) indicates that Chinese students spend more effort on building relationships with others in their cohort than American students do.

Regarding grading procedures, Dautermann (2005) concluded that Chinese students consider fair treatment in regards to resolving a grading issue of more importance than an actual grade change. Further research by Tata (2005) supports this conclusion by noting that Chinese students value *interpersonal justice*, defined as being treated with dignity and provided with explanations of the grading procedures, while American students seek an opportunity to discuss the grade and appeal the grading decision. Closely related is the conclusion reached by Hurd and Xiao (2006) that Chinese young adults are predisposed to accept the professor as the sole authority on any given subject.

Chen and Hird (2006) conducted a study of the effectiveness of group work at the university level in China. Their quantitative and qualitative analysis focused on the value of small group work (two person teams) in reinforcing English language skills. The findings of this study were inconclusive, revealing the difficulty of evaluation. The conclusion reached was that the value truly depends on the skill level and personalities of the students involved. The research did, however, reveal the characteristics of shyness and modesty among the Chinese students, a hesitance to speak out, which the researchers did not anticipate. This highlights the importance of foreign instructors understanding the culture of the country they are teaching in.

A 2010 study involving students from Japan, Taiwan, China, and the U.S. found that Asian students typically take longer to establish their independence and suffer a higher level of distress than their Western counterparts (Berman, You, Schwartz, Teo & Mochizuki, 2011). This cultural aspect can lead to unreasonable expectations on the part of the foreign professor applying andragogical methods in the university classroom.

Getty (2011), journals her personal experience teaching English literature at a Chinese university. Cultural differences noted included students applauding at the end of each lecture, and the propensity of students to discount any world view that was in conflict with their own. Like other researchers have described, Getty (2011) also noted that personal embarrassment was an issue with both students and Chinese colleagues (Confucian value of *face*).

Another common theme in the literature is the collectivist mentality of Asian students in juxtaposition with the individualist attitude of Western students. A study by Holtbruegge and Mohr (2010), involving 939 students across ten countries, finds that Western (individualist) students tend to seek active application as a learning vehicle, while the Asian (collectivist) learners prefer reflective observation, requiring the opportunity to devise an adequate response to the issue.

While the picture painted by the previous research is both multifaceted and incomplete, the message is clear: An understanding of the culture, the geography, is critical to the success of any cross-cultural initiative in education. Failure to consider the history, the background, the values,

the attitudes of both the students and one's foreign counterparts, will impede both the teaching and the learning process.

METHODOLOGY

Qualitative research and analysis was deemed most appropriate for this study. Data collections took two forms: 1) A survey; and 2) Observation and interaction of the three researchers, as instructors, with the students.

The survey enabled the researchers to gather information on student perceptions and attitudes. No indication of the students name or any personally identifiable information was included on the survey instrument. Background questions asked students their gender and whether or not they had siblings. It was anticipated that this information would be used for correlational analysis. Participation was entirely voluntary, though students who chose to participate were given a 10 point quiz grade (1,000 point basis ñ 1 percent of final grade) for presenting the submission confirmation page. SurveyMonkey was chosen to prepare the survey which was distributed through email to a total of 285 SAAP students: 103 first year, 89 second year, and 93 third year. All students were accounting majors. All students were between the ages of 18 and 21.

The ten survey items were derived from previous research in Hong Kong by Littlewood (1999). Students were asked to indicate their response using a 5-point Likert scale from ëStrongly Agree' to ëStrongly Disagree' for each of ten statements. The researchers had intended to have students complete the survey in English, as they are participating in an English-language business program; however, the students' English language proficiency was not as high as anticipated and the researchers felt this would have a negative impact on the survey results. The survey was therefore translated into Mandarin.

Of the 285 students surveyed, 230 responded, equating to an 81 percent response rate. Table 1 provides a detail of the sample by background characteristics. Data was broken down by gender and also by family composition (only child/siblings) as the researchers sought to explore whether any trends could be discerned based on these factors.

Table 1

POPULATION

Total population:	285
Responses:	230
Response rate:	81%

SAMPLE CHARACTERISTICS

Male	52	23%	Have Siblings	138	60%
Female	178	77%	Only Children	92	40%
Total	230			230	

The second method of data collection involved observations by the three researchers in their day-to-day interactions with the second- and third-year students. The first year students were included in the survey, but they were not observed for a number of reasons: 1) first-year students begin their term a month after the second- and third-year students; 2) in their first term, first-year students do not receive any English-language content area instruction, only ESL instruction; therefore, 3) The first-year students were not instructed by any of the researchers during this first term. The team fully intends to continue their observations and further develop this research in the future.

These interactions of classroom behavior included, but were not limited to: Individual and group work; individual and group presentations; asking questions; and, responding to questions posed by the instructors. The researchers were also able to draw inferences based on work completed outside of the classroom.

FINDINGS

Table 2 details the percentage of students responding at each point on the Likert scale. The far right column indicates the average extent of agreement/disagreement with each statement. A score of five indicates perfect agreement of all students; a score of one indicates maximum disagreement of all students; a score of three is the midpoint, indicating neutrality toward the statement.

Table 2

TESTING THE PRECONCEIVED NOTIONS

	Statement	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Mean agreement (5=max)
1.	I like activities where I am part of a group which is working towards common goals.	65.2	28.3	5.7	0.4	0.4	4.57
2.	I like to take part in activities which involve discussion within a group.	57.8	33.0	9.1	-	-	4.49
3.	When I am working in a group, I like to help maintain a sense of harmony in the group.	64.8	33.9	1.3	-	-	4.63
4.	In the open classroom, I often feel hesitant to 'stand out' by voicing my opinions or questions.	6.1	28.7	40.4	21.7	3.0	3.13
5.	In the classroom I see the teacher as an authority figure.	14.8	53.0	22.2	7.8	2.2	3.70
6.	I tend to see knowledge as something to be 'transmitted' by the teacher rather an 'discovered' by me as a learner.	4.8	14.3	40.0	35.2	5.7	2.77
7.	I expect the teacher (rather than myself) to be responsible for evaluating how much I have learned.	7.0	24.8	40.0	25.7	2.6	3.08
8.	I feel strong motivation to follow through learning tasks of which I perceive the practical value.	33.0	57.0	10.0	-	-	4.23
9.	I feel more motivated to work when my own success contributes to the goals or prestige of significant groups (i.e., family, other students).	43.9	50.0	5.7	0.4	-	4.37
10.	In the classroom I feel very concerned to perform well and correctly in what I do.	21.7	50.4	27.4	0.4	-	3.93

DISCUSSION

Heaven is where the police are British, the cooks are French, the mechanics German, the lovers Italian and it's all organized by the Swiss. Hell is where the chefs are British, the mechanics French, the lovers Swiss, the police German and it's all organized by the Italians. (Author unknown)

Preconceived Notions

Culture is system of shared values and beliefs defined as “the collective programming of the mind distinguishing the members of one group or category of people from others” (The Hofstede Center, n.d.a., para. 1). These shared values and beliefs result in stereotypes or preconceived notions that impact both the instructor and the student. The effects influence both the teacher’s effectiveness and the student’s motivation. In order to overcome these challenges each must have at least a basic understanding of the cultural underpinnings of the other.

On the first day of the term, before this research study was conceived, the team conducted an icebreaker activity with the second- and third-year students. The topic of the icebreaker was,

portentously, preconceived notions. The 182 students were grouped into classes of approximately 45 students each. Students were asked to count of by seven and group according to number, resulting in randomly assembled groups of six or seven. In their groups, they were given the following prompt to discuss: List 5 things you believe are true about Americans. One representative was chosen by each group to present the group's results. The instructor compiled a list of responses on the board. Table 3 presents the most frequent responses (somewhat to the surprise and amusement of the instructors).

Table 3

PRECONCEIVED NOTIONS (PCNs) THE CHINESE STUDENTS HAD ABOUT AMERICANS

1	Americans eat a lot of fast food and are all fat.
2	All Americans own guns.
3	American farmers are rich and own their land.
4	Americans have freedom to say and do whatever they want.
5	American women are promiscuous.

When the instructors debriefed the activity, they revealed the preconceived notions they had previously discussed and believed to be true about Chinese students. These are summarized in Table 4.

Table 4

PRECONCEIVED NOTIONS (PCNs) THE AMERICAN RESEARCHERS HAD ABOUT THE CHINESE

1	Chinese students value the collective over the individual.
2	Chinese students value harmony and avoid conflict.
3	Chinese students view teachers as powerful authority figures.
4	Chinese students are highly motivated and hard-working.
5	Chinese students are all only children; no siblings.

PCN1 - Collectivism: Chinese Students Value the Collective over the Individual.

In defining the elements of national culture, The Hofstede Center (n.d.a) identifies individualism versus collectivism as one of the five primary dimensions. At one end of this continuum, individualist cultures are characterized by loosely knit social frameworks that focus on self and immediate family. At the opposite end of the continuum are collectivist cultures in which members of a group care for each other's needs. In these cultures, self-image is viewed in terms of "we" rather than "I." According to The Hofstede Center (n.d.b), China scores a 20 on this scale indicating that "China is a highly collectivist culture where people act in the interests of the group and not necessarily of themselves" (para. 5).

This research formed the basis of the instructors' preconceived notion that Chinese students value the collective over the individual. Based on this notion, in developing the courses for this assignment, the instructors focused more attention toward group projects and group activities than they would have in a U.S. classroom. The survey results indicate strong agreement with items 1 and 2 which reflect the importance of relationships within the group (average score = 4.53), supporting the instructors' assumptions.

Direct observations, however, do not lead to the same conclusion. During the course of the semester, the instructors assigned a number of tasks/projects involving group work. In some cases the groups were determined by the instructor; in others, the students were permitted to choose their own group members. In both arrangements, the instructors observed the same ëfree rider' issues we would expect in a U.S. classroom, but did not expect in a Chinese classroom. During exercises in which group members were selected randomly by the instructor, personality conflicts and infighting were revealed; again, unexpected in what we believed to be a highly collectivist culture.

Observing discussion within groups, we found that conversation was lively when the students were permitted to speak in Mandarin, but when required to hold conversations in English, both the volume and the enthusiasm dropped dramatically. The researchers do not believe this to be a cultural issue, but related to the language barrier.

The Chinese perspective: Chinese students have always been told to value the collective over the individual from their childhood. They have been taught by their society that he who sacrifices oneself to make a group better is a hero. Their survey responses reveal what they have been taught to believe. In practice however, human nature prevails, and students of this age tend to be more focused on self. Another reason for this discrepancy between responses and observations relates to the characteristics of the student population involved. Tertiary school students are not as academically well-equipped as normal university students. They are more enthusiastic about out of class activities than study and behave much better in groups during events such as basketball games. In short, they are more focused on the social aspects of college life than their academic endeavors.

PCN2 - Harmony: Chinese Students Value Harmony and Avoid Conflict.

According to Xiaoping and Enrong (2004), "an emphasis on peace and harmony is an essential feature of traditional Chinese culture" (p. 35). Harmony is also a central tenet of

Confucianism. Closely related, with its roots in the Confucian model of social harmony, is the concept of face. Brown and Levinson (1987) define face

> *as something that is emotionally invested, and that can be lost, maintained, or enhanced, and must be constantly attended to in interaction. In general, people cooperate (and assume each other's cooperation) in maintaining face in interaction, such cooperation being based on the mutual vulnerability of face. (p. 61)*

This definition supports the perception by most Western cultures that *face* is something almost mystical, the loss of which results in ostracism. In much simpler terms, *face* refers to an individual's dignity, pride, image, and status within the social structure.

Based on the instructors understanding of the concepts of harmony and face, they expected that students would seek to maintain harmony in groups (item 3), and, as individuals recognizing the vulnerability of *face*, be hesitant to stand out (item 4), and concerned about how they are perceived (item 10).

This notion that Chinese students value harmony was indeed borne out by the strong agreement to item 3 (score = 4.63); however, the team's observations, once again, tell a different story.

In order to better assess the final project for the term, the instructors required the students to complete a peer evaluation and turn it in along with the project. The instructors' preconceived notions regarding harmony and conflict avoidance led them to anticipate the evaluations would have no value. In the interest of harmony, the instructors were certain the students would all report that each member contributed equally. This is not what transpired. Roughly half of the groups reported an equal distribution of work, while the other half were not at all hesitant in identifying the slackers. Several students even came to see the instructors during office hours to discuss the inequity of the work distribution.

Regarding *face*, the researchers had anticipated strong agreement with items 4 and 10, confirming the preconceived notions that Chinese students are reluctant to stand out and extremely concerned with correctness; however, the result was near neutral (average score = 3.53). Instructor observations confirm this result. While some students responded extremely shyly when called on for a response, the majority were willing to attempt to answer when prompted. Contrary to instructor expectations, there did not appear to be any overwhelming social stigma to answering a question incorrectly. Researchers observed much seemingly good natured laughter and chiding, with only a few isolated instances of embarrassment.

The researchers did corroborate another unexpected behavior related to the concept of *face*. Scarlatelli (2012) observes, *keeping face* often leads to outright lying.

> *If a Chinese person doesn't know the answer to something, a lot of times they will simply make something up on the spotÖSimilarly, if they have not performed a task they were givenÖwhen asked about it they will simply stare and not say anything. This, according to my Chinese friends, is a way to ësave face' by not admitting you've done something wrong. (para. 6)*

The instructors experience in the classroom corresponds with this commentary. This was an important revelation regarding culture. Compounding the issue is that Chinese students stand

when called on for a response. This can create an uncomfortable situation for both student and teacher. Keeping in mind that the content-area courses are still expected to support the ESL program, it is important for students to speak on a regular basis, not just read and write.

Over the course of the semester, the instructors discovered two successful methods of diffusing this situation, allowing both student and instructor to *save face*. One method involved the game show technique of calling a "lifeline." If a student appeared to be struggling, they could call on another student to help them. This was often times very entertaining. Another method was to design participation exercises using round robin techniques. Participation increased when students were called on in a particular order, rather than randomly. Knowing when it would be their turn seemed to increase the student's comfort level, as did the option to "pass" if they did not know the answer when their turn came. In addition, if designed to be fast- paced, round robin exercises also kept students in their seats.

The Chinese perspective: In addition to the Confucian influence, the government and the media (controlled by the government) promote harmony in order to build a secure society. Unlike in Western cultures, Chinese news is dominated by positive stories of national achievement. Negative reporting is minimal.

Chinese students do value harmony as an important factor in interacting with others. However, as a result of the long-standing One Child Policy, some do not know how to work with others within a team. Conflict will happen when the interactions do not meet their expectations.

Most Chinese students do not want to "stand out" not only because "face" issue, but also influenced by another central tenet of Confucianism called moderation. In most cases, students, especially girls, while knowing the correct answer, will still hesitate to speak out until prompted by the instructor.

PCN 3 - Power & Authority: Chinese Students View Teachers as Powerful Authority Figures.

German sociologist Max Weber defined the social phenomenon of power as "the capacity of an individual or group to realize desired ends in spite of resistance offered by others" (Johnson & Kruse, 2009, p. 77). According to Weber, this power is derived from three sources: The *traditional authority* rooted in established institutions, customs, and beliefs of the collective; the *legal authority* of enacted rules and laws; and, the *charismatic authority*, which Weber (1946) refers to as the "*gift of grace*, the absolutely personal devotion and personal confidence in revelation, heroism, or other qualities of individual leadership" (p. 79).

The dominant leadership style observed by the team is the Confucian Asia team- and humane-oriented leadership. This profile is described by Northouse (2013) as "a leader who works and cares about others but who uses status and position to make independent decisions without the input of others" (p. 398). This style is reminiscent of the traditional view of leadership described by Machiavelli (1532) in his masterpiece, *The Prince*, who acknowledges that ideally, the leader should be both feared and loved. The power element dominates; however, concern for people is also high.

Hofstede describes this dynamic as the *power-distance* dimension of national culture. China, with a rank of 80, is described as "a society that believes that inequalities amongst people

are acceptable" and where "the subordinate-superior relationship tends to be polarized" (The Hofstede Center, n.d.b, para. 3).

Based on the researchers' understanding of power, leadership, and the power-distance dimension of Chinese culture, the instructors did not anticipate any classroom management problems. Item 5 relates to student perceptions of teacher authority. The research team expected strong agreement with this statement and were surprised by the result (score = 3.70), indicating near neutrality.

While there were not significant issues in classroom management, and no blatant disrespect, the level of deference anticipated based solely on the position of authority was absent. Researcher observations suggest that respect for authority among this generation may be influenced by age and gender more than simply position.

The Chinese perspective: The word "teacher" in Chinese means someone who was born earlier and therefore is expected to have more knowledge. In the past, students did see the teacher as more of an authority figure because they respected this knowledge. Knowledge and hard work was the key to a better life.

The current generation of students have grown up in a very different China. Their parents were not well educated, but because of the industrial revolution in China, they have been able to succeed economically and amass unprecedented wealth. This generation of students therefore do not believe they have to work hard academically in order to succeed. They believe that they have more knowledge and can do better than their parents. What they fail to recognize is that even though their parents had less education, they worked much harder. Many Chinese believe the Chinese work ethic is gone forever.

PCN4 - Motivation and Dedication: Chinese Students Are Highly Motivated And Hard-Working.

Pedagogy, from the Greek words for "child-lead," is defined as the art and science of teaching, and also refers to the function or work of the teacher. It is often (wrongly) used synonymously with teaching. Pedagogy describes the traditional classroom of our youth. Because young children have not yet collected enough experiences to effectively transform new information into learning, instruction is developed in such a way that children are taught not only what to learn, but *how* to learn. Leadership in the pedagogical environment is generally of the transactional variety: Carrot and stick, task-oriented, and often autocratic.

Andragogy, on the other hand, is the art and science of teaching adults. While Knowles did not coin the term, it has become synonymous with his name as he advanced the first theory of teaching adults. According to Knowles (as cited in Smith, 2002), andragogy is premised on the following five differences that exist between child and adult learners.

1. Self-concept: As a person matures his self-concept moves from one of being a dependent personality toward one of being a self-directed human being.
2. Experience: As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning.

3. Readiness to learn. As a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles.
4. Orientation to learning. As a person matures his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.
5. Motivation to learn: As a person matures the motivation to learn is internal. (para. 32)

Leadership in the andragogical environment is often democratic/participative and can be charismatic and (ideally) transformational.

The students in the study group are all between the ages of eighteen and twenty-one, qualifying them, by virtue of age, as adult learners. As such, they should share the understanding assumed by andragogy that learning is a mutual relationship between teacher and student, and the instructors should have achieved success utilizing andragogical approaches in the classroom.

Survey items 6 and 7 were directed at understanding the students' view regarding the respective roles of learner and teacher. The research team expected the results to reveal at least moderate disagreement with items 6 and 7, indicating the students felt responsible for their own learning, not reliant on the teacher to deliver both knowledge and evaluation. The results failed to meet expectations (average score = 2.93) indicating a nearly neutral response.

Items 8 and 9 were created to evaluate the students' perceptions related to motivation. Support of instructors' preconceived notions would be indicated by strong agreement with these two items signifying a high degree of self-motivation. The results (average score = 4.30) does indeed support this notion of motivated learners.

Classroom observations do not support these results. In the first few weeks of instruction it became immediately apparent that many of the students in the program were not yet prepared to take responsibility for their own learning. Hurd and Xiao (2006), in discussing the challenges faced in the distance learning environment, comment that in China, "pupils are used to being ëspoon-fed' at school" (p. 207). The instructors' observations confirm this. Students had to be told to take notes, though often they had arrived with neither paper nor writing implement; textbooks were left in desks, not taken home to study; every task had to have a grade or evaluation attached, or it would not be completed; classroom rules had to be established and posted. This required significant adaptation of the instructors' materials and instructional and leadership approaches.

The Chinese perspective: The culture in China is extremely family-oriented. Families tend to be much closer both geographically and emotionally. Parents feel a responsibility to take care of their children throughout their lives; adult students are generally still being treated as children by their parents during their college years. Parents are willing to sacrifice their own needs in order to provide for their children, even into adulthood. The One Child Policy has exacerbated this situation as, in some cases, a single child is the sole focus of two parents and four grandparents. In addition, as previously discussed, the parents of this generation of student are more financially secure, if not wealthy. As a result, children know they have a safety net if they fail. There is therefore little motivation for them to work hard.

PC5 - "Little Emperors": Chinese Students Are All Only Children.

The term *Little Emperor* has been used in China to describe the role played by the single child in the Chinese family as a result of China's One Child Policy. The preconceived notion associated with *Little Emperors* is one of a spoiled child. This child can be the center of attention for not only the parents, but also for four grandparents. This places a great deal of pressure on the child to succeed while also leading to over indulgence of every whim.

The instructors expected the students to all be only children, and, as a group, to be self-absorbed and self-centered, with a sense of entitlement. Experience on the ground partially supports this preconception as a number of students displayed these tendencies; however, our base assumption regarding the One Child Policy was incorrect.

While it is indeed true that China does have this policy, exceptions abound and it is estimated that only 36 percent of Chinese citizens are subject to this law (Xiaofeng, 2007). Rural families may have a second child if the first born is female; members of cultural/ethnic minorities are exempt from the policy; and, beginning in November 2011, spouses that are both single children may have two themselves. In addition to the legal exceptions is the wealth exception: Families that can afford the hefty tax on multiple children can have multiple children.

In the classroom, the students displaying the least motivation, the least willingness to complete assignments, and the least effective in group work were almost exclusively male, and nearly every male student fit this description. The sample, however, was extremely small as the overwhelming majority of students in the SAAP are female. As shown in Table 1, 77 percent of the survey respondents were female, 23 percent male. This approximates the proportion in the SAAP population.

The researchers suspect the majority of the male students are indeed *Little Emperors* while the majority of the female students have siblings. It is significant to note that 60 percent of the survey respondents do have siblings. This high percentage is surely related to the gender bias of the SAAP population. A first born girl is more likely to have siblings, where a first born boy will often be an only child. The researchers' notions were therefore partially supported. The Little Emperor syndrome does appear to exist; however, not all Chinese students are only children.

The Chinese perspective: In China, rural families usually have more than one child; urban families run the risk of losing their jobs or paying a penalty, often do not have more than one child. As the rural and urban populations are roughly identical, anecdotal evidence suggests that one child families are only about 40 percent. This ratio is impossible to find from official sources. Beginning in 2013, as a result of the Third Plenary Session's decision, the percentage of one-child families will decrease even further. It has been observed among the Chinese population that students with no siblings tend to be self-centered and less willing to work productively in groups.

LIMITATIONS & FUTURE RESEARCH

This research is limited primarily by the absence of comparisons with samples from other cultures, both Asian and Western. Even other groups within China might present differently as all of the students in this study were from the same, largely rural, province. The fact that the sample students were from a tertiary college, rather than a tiered university may also have impacted the

researchers' observations as the entrance standards are lower. This was also a contributing factor to the language proficiency issue which may also have impacted the results. Lastly, the previously discussed skewedness of the sample related to gender and family composition (only child/siblings) prevented the researchers from conducting any correlational analysis based on these characteristics.

CONCLUSION

It is clear from the survey results that the traditional values the researchers expected to find in China do indeed persist. Students have learned the lessons of their cultural heritage and believe about themselves many of the same things Western culture holds to be true about Chinese culture. However, their behavior, in many cases, does not reflect these values. They appear to know the words, but have not internalized the meaning. This inconsistency is likely the result of many factors, the age and maturity level of the sample chief among them.

Research by Law (2012), explored the cultural difficulties in collaboration between Chinese and American educational leaders. The study showed that increased exposure to Western educational models is changing the culture of Chinese higher education; however, the cultural dichotomies are still causing confusion and an abundance of preconceived notions that must be worked through.

If exposure to Western educational models is changing the culture of Chinese higher education, what effect must the influence of Western media be having on the students? The students observed in this study love American TV series and movies. American TV is not broadcast in China, but pirated versions proliferate on the Internet and are widely viewed by this generation. American movies are featured in Chinese theaters and are also available both for purchase and on many pirated sites. One cannot imagine that this does not have an impact on values and behaviors.

Regardless of the limitations, if a broad generalization or stereotype is true for any population, one would also expect it to hold true in even a small sample such as this study. The obvious message is that an individual, especially one in a leadership position such as a teacher, should carefully examine one's own preconceived notions about a culture, and the notions that others are likely to have regarding their home culture. Remember, geography is about much more than terrain and a set of GPS coordinates.

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COMPARING BUSINESS LAW IN ONLINE AND FACE TO FACE FORMATS: A DIFFERENCE IN STUDENT LEARNING PERCEPTION

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ABSTRACT

This paper extends the body of research investigating potential differences in face to face and online delivery of a business law course. Using a unique survey, it investigates student perceptions of their learning and understanding of key course concepts, as well as student satisfaction with the course and course instruction. Further, the paper explores the specific characteristics of online versus face to face students that may impact their satisfaction.

INTRODUCTION

Institutions of post-secondary education are increasing their distance learning opportunities in response to societal demand for more convenient and flexible methods of college instruction, and as Falk and Blaylock (2010) suggest, making distance learning a "central focus". Parker et al. (2011) report that 89% of four year public universities are offering online courses and that 50% of college presidents surveyed predict that by 2021 most undergraduates will take online courses. Pethokoukis (2002) reports that in the United States, online course enrollment is increasing by 33% per year. These opportunities can include hybrid courses, taught partially face to face and partially online, or courses taught fully online. As the addition of distance learning opportunities can be a budgetary concern for an institution, it is important to discover the best practices in creating online education that is as effective and satisfactory as the traditional face to face format (Bernard et al., 2004).

Throughout academic literature, two questions remain: (a) is it possible for fully online instruction to be as effective as traditional face to face instruction?; and (b) does fully online instruction satisfy student demands the same as face to face instruction? (Bernard et al., 2004). This paper addresses the fully online course, specifically of the business law discipline, which most business schools include in their required undergraduate curriculum to satisfy accreditation eligibility through the Association to Advance Collegiate Schools of Business (AACSB's 2013 Business Standards). Although researchers have compared face to face and online sections of the same course in other business disciplines and in the humanities (Lyke and Frank, 2013; Driscoll et al., 2012; McFarland and Hamilton, 2005; Summers et al., 2005; Bernard et al., 2004; Finlay et al., 2004; and Rivera and Rice, 2002), there is little research on this comparison in business law (Shelley et al., 2007). Because introductory business law courses are distinctive in aspects such as students' likely initial exposure to complex legal concepts, the subjective and interpretive nature of the discipline, and the less quantitative focus than several other business core curriculum

courses, it is important to examine the impact of course delivery model on both student learning and student satisfaction.

This paper contributes to the discussion of business law's use of online learning. We chose to investigate the business law discipline not only due to the lack of research comparing business law online and face to face courses, but because business law is materially different from other common core business courses, including accounting, finance, economics, and information systems. Where these common core courses are largely quantitative and objective, business law is a qualitative and subjective discipline. Business law is not often offered as a major in business schools so students may not give a core business law course the same focus and attention as one that was their business major of choice. Additionally, business law is in most instances the first time students have had legal studies, making the course more foreign than mathematically based courses such as the common core listed above. We investigate whether students taught using an identical course delivery plan by the same instructor, in online and face to face sections of an introductory business law course, perceive their learning and course satisfaction equally. We further explore specific student characteristics that may contribute to differences in satisfaction levels between the two delivery formats, such as student age, the number of hours that students work outside of school, and the number of credit hours in which students are enrolled.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Much research investigating the impact of online versus face to face course delivery exists. Two research streams within this literature are student learning and student satisfaction. Although prior research has suggested ways to eliminate differences in student learning and student satisfaction between the online and face to face delivery models, the results are inconsistent.

In the area of business school course delivery models, researchers have found conflicting results when comparing instructional delivery models. Wang and Newln (2000) find that business students in a face to face course environment outperform online business students on their final exams. Arbaugh and Duray (2001) find that online MBA students had higher learning than students in the face to face course. Using business students to analyze differences in course delivery method, several researchers do not find a difference in student learning (DiRienzo and Lilly, 2014; Ruth and Conners, 2012; and Vogt et al., 2005).

Student learning in online and face to face courses has been linked to the use of technology. Sun et al., (2012) find that the use of an electronic textbook encourages student engagement in the learning process, which may in turn impact student success. Cole et al., (2009) find that quick responses to email, introductory discussions of the students, and weekly video announcements can improve teaching effectiveness. To improve student success, Balkin et al. (2005) suggest that presentation slides and video lecture should be incorporated into the online course.

In the current study, electronic textbooks, email, introductory discussions of students, video announcements, slide presentations, and video lectures were utilized during the course instruction in both the face to face and online sections under comparison. Their inclusion could potentially improve the student's learning in either class format. Thus, the first research question investigates students' perceptions of their success in two of the course learning objectives.

RQ1a: Do students perceive their understanding of business law concepts differently in business law courses delivered online versus face to face?

RQ1b: Do students perceive their ability to think critically about the law differently in business law courses delivered online versus face to face?

Similar to the literature on student learning in online versus face to face courses, prior research varies on the impact that course delivery method has on student satisfaction. Russell (1999) does not find a difference in student satisfaction among students in online versus face to face courses. Johnson et al., (2000) and Shelly et al., (2008) find that face to face students are more satisfied with the course instructor than students taking the course online. Shelly et al., (2008) also find that course satisfaction varies significantly by gender, but not by age or nationality. Arbaugh and Duray (2002) find the opposite; students in online courses are more satisfied than students in face to face courses. Similarly, Finlay et al., (2009) find that students in online English composition courses are more satisfied than students in a face to face course setting. Further, several studies have shown that if the course experience is virtually the same between the two courses, differences in student satisfaction with a course can be overcome (Driscal et al., 2012; McFarland et al., 2005).

The courses used in this study were almost identical in course design and delivery. The only differences in the two course syllabi included minor assignment due dates and technology instructions in the online course syllabus. According to prior research, the similarity between the online and face to face class sections could lead to student satisfaction with the course by students in the differing delivery formats (Driscal et al., 2012; McFarland et al., 2005). The second research question investigates students' satisfaction with the course and the instructor and whether it is impacted by course delivery model.

RQ2a: Does student satisfaction with the course differ between course sections delivered online and course sections delivered face to face?

RQ2b: Does student satisfaction with the course instruction differ between course sections delivered online and course sections delivered face to face?

METHODOLOGY

One instructor taught both sections of the online format and the face to face format of the Legal Environment of Business during the same fifteen week semester, Spring 2013. One online section had 40 students and the other online section had 37 students. The face to face section had 86 students. The face to face section was taught during the daytime (11:00 am), while the online sections had no formal meeting time. Similarities between all three sections were that they used the same textbooks, assignments, tests, special projects, and grading scale. Every effort was made by the instructor to treat all students in all sections equally. The syllabi were identical with the exception that information regarding the use of technology was presented in the online sections. The assignment schedules for the face to face classes differed from the online sections only in the day of the week assignments or tests were due and the way that assignments and tests were administered (in person in face to face sections vs. online in online sections).

The survey data was collected through an online survey administered to students at the end of the Spring 2013 semester. Student responses were anonymous and could not be given without first completing a consent agreement. Students obtained credit by emailing the instructor a copy of the "Thank You for Participating" page of the online survey, which appeared after completing the survey. This page contained no identifying data on the survey answers that a particular student gave.

The survey questions analyzed in this paper utilized a five point Likert scale with one representing "Strongly Agree" and five representing "Strongly Disagree." It included questions on student satisfaction with critical thinking skills, business law concepts learned in the course, and demographic characteristics. The survey was pilot tested using a group of students who were business law minors and who had taken the Legal Environment of Business course in a prior year; this resulted in minor wording changes to improve comprehension of the survey questions.

RESULTS

The data consisted of 64 completed surveys from students in the face to face course and 50 completed surveys in the online course. The respondent characteristics, summarized in Table 1, revealed several differences in the student populations of the two delivery methods. The face to face course had significantly more males than the online course. Almost 60% of the students in the face to face course were male, while 62% of students in the online course were female. Students attending the face to face course were significantly younger than students in the online course. Over 98% of the students in the face to face course were between the age of 18 and 34, while only 76% of the online class fell in this age range. The majority of students in the online course worked over twenty hours a week while the majority of students in the face to face course worked twenty hours or less. Notably, 30% of the online students were working greater than 40 hours per week, while only 7.8% of face to face students worked in excess of 40 hours per week. Fifty-six percent of the online students were enrolled in a full-time course load (greater than or equal to twelve credit hours), while 79.6% of face to face students were enrolled in a full time course load. The hours spent working on the course do not significantly differ between the two delivery methods with 87.5% of the face to face course and 88% of the online course reporting that they spent between either 0-9 or 10-19 hours weekly working on the course. Running a two way ANOVA on each of these characteristics and the course delivery method indicated no significant main effects or interactions on the participant's course satisfaction. However, when we interpret credit hours based on our university's definition of enrollment status (full time is greater than or equal to twelve credit hours), then as shown in Table 2 we do find significance. In our experiment, students with part time enrollment status are more likely to be satisfied with the course regardless of the delivery method.

The first research question investigated students' perception of their learning. Specifically, it investigated their learning of business law concepts and critical thinking. The survey included six statements designed to capture their perception of their understanding of business law concepts. Table 3 summarizes these six statements and the responses to them. T-test analysis was conducted on each of the six statements' means to determine if the online and face to face students felt

differently. For two of the six statements, students responded significantly differently depending on the course delivery they received.

Students participating in the face to face course agreed significantly more with the statement "Class discussion in this course positively impacted my ability to learn business law concepts in this course" (t=-2.019, p=0.046). Although discussion boards, chats, and instructor email messaging were used in the online course, it does seem reasonable that students in a face to face setting would feel that class discussions were more beneficial in their learning of business law concepts.

Conversely, students in the online course agreed significantly more with the statement "Interaction with my classmates during the semester positively impacted my ability to learn business laws concepts in this course" (t=1.989, p= 0.049). The students in the online course potentially relied more on each other for feedback and discussion of classroom material, with the absence of an instructor being physically present at a regular meeting time. In the first statement, "class discussion" in a face to face setting could have been interpreted as discussion with the instructor, not with other students, while "interaction with my classmates" is more clearly regarding discussion and involvement with fellow students instead of with the instructor. The instructor noticed more material questions being directed toward her instead of toward other students in the face to face course format, whereas the instructor noticed that material questions were being directed toward fellow classmates in the online course format, as well as toward the instructor.

The research question also investigated students' perception of their ability to think critically (RQ1b). The survey included six statements designed to capture student perception of critical thinking development. Table 4 summarizes the six statements and their responses. T-tests were conducted on each of the six statements' means to determine if the online and face to face students felt differently. As was the case with their understanding of business law concepts, students responded significantly differently depending on the course delivery that they received on two of the six statements.

Students participating in the face to face course agreed significantly more with the statement "Class discussion in this course positively impacted my ability to learn critical thinking in this course" (t=-2.429, p=0.017). Although discussion boards, chats, and instructor email messaging were used in the online course, it does seem reasonable that students in a face to face setting would feel that class discussions were more beneficial in their development of critical thinking skills.

Similar to the findings regarding business law concepts, students in the online course agreed significantly more with the statement "Interaction with my classmates during the semester positively impacted my ability to learn critical thinking in this course" (t=1.824, p=0.071). Since online learning does not have the consistent physical presence of an instructor, students in an online course may be more inclined to interact with their classmates to discuss course material than to wait for an asynchronous reply from their instructor.

The second research question investigates student satisfaction with the course and the course instruction. The survey included two statements to measure satisfaction. Table 5 summarizes the results of these two statements. Despite the fact that several studies have found

online students to be less satisfied in their course and course instruction (Johnson et al., 2000; Shelly et al., 2008), this is not the result that we find. We do not find a significant difference in satisfaction with the course or course instruction between the online and face to face delivery methods. Over 98% of the students in the face to face course agreed or strongly agreed with the statement "Overall, I am satisfied with this course." One hundred percent of the students in the online course agreed or strongly agreed. Ninety-eight percent of the students in both the face to face and online courses agreed with the statement "Overall, I am satisfied with the instruction I've received in this course." This supports the findings of prior research that specific efforts to align important course characteristics can eliminate differences in overall satisfaction between online and face to face courses.

LIMITATIONS

The students surveyed were taught by only one instructor during one semester at the same four year university. Therefore, it may be difficult to generalize results to all instructors at all institutions of higher education. Additionally, the number of students surveyed was small. A larger survey data group would show a better representation of all Legal Environment of Business students.

Students who work full time or live far from campus may not have the option to take face to face courses. Since these students cannot take classes face to face, they turn to a more flexible education option, and then choose whatever online format options are available in a given semester. Certainly, then, those students who need to take online classes may have a different perception of course satisfaction if they have never taken a face to face course, have not taken a face to face course in a period of time, or cannot take face to face courses due to time constraints. These students would only know education in an online format, and could only compare their own satisfaction of a course with other online courses, not face to face courses. (However, in analyzing the course rosters for our online students, 67.5% of those enrolled in our online courses were also enrolled in at least one face to face course during the same semester).

DISCUSSION

The results of this study contribute to the body of research comparing face to face and online sections of the same course. There has been little research done comparing gender, age, working hours, and student total enrollment hours characteristics with regard to student satisfaction of online versus face to face sections of the same course (Shelley et.al., 2008). The data in our study suggests that the majority of the students in the online course sections work full time. The students in the online course are also older. This supports the idea that online students tend to be older, part or full time workers, and returning to school after being in the working world for a period of time. Also shown in our data, these students often take fewer course hours, which is likely due to their lack of time. The students in our survey who took the face to face section of the course tended to be the more traditional college student: younger, often directly out of high school, working fewer hours outside of school, and taking more course hours. These students may have more opportunity to choose a face to face or online section of a course based on their own

preferences versus needing to take only online sections based on limited time availability as an employed full time student.

Despite the differences between the online and face to face course sections in gender, age, working hours, and course hours, we do not find that these characteristics have a significant impact on student satisfaction regardless of the course delivery method. However, students in the face to face course significantly agreed more than those online with the use of classroom discussion as a factor in helping them learn. On the other hand, online students significantly agreed more than face to face students that classmate interaction helped them to learn business law concepts.

While this data adds to and further confirms that there is no significant difference in student satisfaction of the same course in either online or face to face formats, future research in the comparison of online and face to face courses should focus on student perceptions of learning and how to synchronize the effectiveness of such perceptions in both course formats. Additionally, further clarification of the difference in "classroom discussion" and "classmate interaction" should be researched to determine whether clarification of these terms will change the significant difference in student learning perception.

Higher education will likely continue to offer more online courses to meet student demands, but additional research in the identified areas of significant difference, such as student learning perception, may help institutions discover the most effective and satisfactory methods of equating online and face to face instruction. Also, an important area of research should be to examine the reasons why students choose online courses over face to face courses. As the data in this study suggests, students choosing online courses tend to be older working students, and therefore, the decision to choose an online course may be driven by their time constraints versus personal preference. Additionally, future research that examines course delivery outcomes in specific disciplines will increase knowledge of discipline-specific factors that may impact student learning.

Table 1
Respondent Characteristics by Delivery Method

	Face to Face	Online
Gender		
Male	**57.8%**	**38%**
Female	**42.2%**	**62%**
Age range		
18-24	**82.8%**	**58%**
25-34	**15.6%**	**18%**
35-54	**1.6%**	**18%**
Over 54	**0%**	**6%**
Weekly hours of employment		
0-10	**46.9%**	**18%**
11-20	**20.3%**	**20%**
21-40	**25%**	**32%**
41-60	**7.8%**	**28%**
Over 60	**0%**	**2%**
Number of courses this semester		
1 or 2	**4.7%**	**24%**
3	**15.6%**	**20%**
4	**42.2%**	**30%**
5	**34.3%**	**22%**
Over 5	**3.1%**	**4%**
Self reported GPAs		
0-1.9	**1.6%**	**4%**
2.0-2.4	**12.5%**	**12%**
2.5-2.9	**31.3%**	**18%**
3.0-3.4	**14.1%**	**34%**
3.5-4.0	**40.6%**	**32%**
Weekly hours spent on the course		
0-9	**62.5%**	**52%**
10-19	**25%**	**36%**
20-39	**12.5%**	**8%**
40-59	**0%**	**2%**
Over 60	**0%**	**2%**

Table 2
Source Table for 2 (Enrollment Classification) x 2 (Course Delivery) Completely Between Subjects ANOVA

Dependent Variable: Overall, I am satisfied with this course.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power
Corrected Model	1.367[a]	3	.456	1.627	.187	4.880	.417
Intercept	177.405	1	177.405	633.239	.000	633.239	1.000
Enrollment Classification	.891	1	.891	3.180	.077	3.180	.424
Course Delivery Method	.753	1	.753	2.688	.104	2.688	.369
Enrollment Classification*Course Delivery Method	.312	1	.312	1.115	.293	1.115	.182
Error	30.817	110	.280				
Total	271.000	114					
Corrected Total	32.184	113					

R Squared = .042 (Adjusted R Squared = .016

Table 3
Statements of Business Law Concepts

	n	Mean
Face to Face Course Delivery		
I am satisfied with the amount of business law concepts I have learned in this course.	64	1.58 (0.612)
I believe the course format (online or face to face) positively impacted my ability to learn business law concepts.	64	1.59 (0.495)
The number of students in this section positively impacted my ability to learn business law concepts in this course.	64	2.22 (0.745)
The class meeting time positively impacted my ability to learn business law concepts in the course.	64	2.08 (0.803)
Class discussion in this course positively impacted my ability to learn business law concepts in this course.	64	1.67 (0.619)
Interaction with my classmates during the semester positively impacted my ability to learn business law concepts in this course.	64	2.45 (0.815)
Online Course Delivery		
I am satisfied with the amount of business law concepts I have learned in this course.	50	1.50 (0.647)
I believe the course format (online or face to face) positively impacted my ability to learn business law concepts.	50	1.50 (0.505)
The number of students in this section positively impacted my ability to learn business law concepts in this course.	50	2.30 (0.839)
The class meeting time positively impacted my ability to learn business law concepts in the course.	50	2.00 (0.881)
Class discussion in this course positively impacted my ability to learn business law concepts in this course.	50	1.96 (0.903)
Interaction with my classmates during the semester positively impacted my ability to learn business law concepts in this course.	50	2.14 (0.857)

The standard deviations are in parentheses below the means.

Table 4
Statements of Critical Thinking

	n	Mean
Face to Face Course Delivery		
I am satisfied with the amount of critical thinking skills I have learned in this course.	64	1.47
		(0.503)
I believe the course format (online or face to face) positively impacted my ability to learn critical thinking skills.	64	1.39
		(0.492)
The number of students in this section positively impacted my ability to learn critical thinking in this course.	64	2.23
		(0.868)
The class meeting time positively impacted my ability to learn critical thinking in the course.	64	2.06
		(0.852)
Class discussion in this course positively impacted my ability to learn critical thinking in this course.	64	1.72
		(0.629)
Interaction with my classmates during the semester positively impacted my ability to learn critical thinking in this course.	64	2.52
		(0.873)
Online Course Delivery		
I am satisfied with the amount of critical thinking skills I have learned in this course.	50	1.48
		(0.580)
I believe the course format (online or face to face) positively impacted my ability to learn critical thinking skills.	50	1.54
		(0.503)
The number of students in this section positively impacted my ability to learn critical thinking in this course.	50	2.26
		(0.876)
The class meeting time positively impacted my ability to learn critical thinking in the course.	50	1.98
		(0.869)
Class discussion in this course positively impacted my ability to learn critical thinking in this course.	50	2.10
		(1.035)
Interaction with my classmates during the semester positively impacted my ability to learn critical thinking in this course.	50	2.22
		(0.840)

The standard deviations are in parentheses below the means.

Table 5
Student Satisfaction Statements

Face to Face Course Delivery	n	Mean	Percent Strongly Agree	Percent Agree	Percent Neutral	Percent Disagree	Percent Strongly Disagree
Overall, I am satisfied with this course.	64	1.41 (0.526)	60.9	37.5	1.6	0.0	0.0
Overall, I am satisfied with the instruction I've received in this course	50	1.50 (0.544)	52.0	46.0	2.0	0.0	0.0
Online Course Delivery	n	Mean	Percent Strongly Agree	Percent Agree	Percent Neutral	Percent Disagree	Percent Strongly Disagree
Overall, I am satisfied with this course.	64	1.31 (0.467)	68.8	31.2	0.0	0.0	0.0
Overall, I am satisfied with the instruction I've received in this course	50	1.34 (0.593)	70.0	28.0	2.0	0.0	0.0

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THE IMPORTANCE OF COGNITIVE STYLE IN INFORMATION RETRIEVAL TASKS

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ABSTRACT

The purpose of this project was to investigate the impact of user characteristics (e.g., cognitive style, professional field, age, gender, and educational expertise) on an information retrieval task. A laboratory experiment explored the effect of the data model representations (relational versus entity-relationship), query languages (SQL versus QBE) and user's characteristics (e.g. cognitive style) on query writing task performance. User characteristics were found to play a significant role in the experiment's participants regardless of their professional field. In particular, the wholist-analytic cognitive style dimension was significant for the query task completion time. However, the tendency to think visually or verbally did not impact on user performance. These findings have implications for education and training.

INTRODUCTION

Accounting and business decisions often require database applications to convert raw data into useful business information (Hayes and Hunton, 2000). Modern accounting information systems use relational databases (Hooper and Page, 1996). Accounting academicians and professionals generally agree that accountants and auditors must become proficient with information systems technology, such as database management systems (DBMS) and information retrieval techniques (Borthick, 1996), particularly so they will not need to rely as heavily on the expertise of computer professionals (Hooper and Page, 1996). The AICPA information technology section also has identified database technology as one of the top ten information technologies with which accountants must be familiar (Anonymous, 1994). In addition, the CPA exam recognizes the importance of Information Technology (IT) topics and focuses a large part of the Business Environment Concepts exam on IT subjects relating to business (AICPA, 2010).

Formerly, information systems (IS) professionals were responsible for query tasks on behalf of end-users (Borthick, 1992). Today, however, accounting system queries can be easily performed by end-users because current database technology is more user friendly (Hooper and Page, 1996). In order to perform these query tasks, these end-users (such as accountants, auditors, and managers) must understand both the database structure and the available query language (Leitheiser and March, 1996).

The availability of accounting data is communicated through the use of a database structure representation (Dunn and Grabski, 2002). This representation details the stored data items and their logical organization. Examples of such representations are the entity-relationship (ER) model and the relational model. Ability to access data of interest also requires knowledge of a database query language. Examples of such languages are query-by-example (QBE) and structured query language (SQL).

Prior research on end-user performance in query construction tasks has not resulted in clear conclusions about the effect of database representation type, query tool type, and user characteristics. According to Dunn and Grabski (2002), this is a relatively new research field and

these factors should be studied further to determine their combined effects on query writing performance.

Users of accounting information are not homogeneous. Neither are the database technologies used in accounting information systems homogeneous. Different users possess particular user characteristics that can impact their performance in writing queries (e.g., age, gender, educational background, experience, and cognitive style).

Therefore, this study uses both accounting participants and MIS participants as a proxy for the groups of potential end-users. This is the first study to explicitly include user characteristics in the research model.

Only one study attempted to manipulate both the database structure representation and the query language (Chan et al., 1993). Similarly, the current study manipulates both the data model and the query language. No prior studies have investigated the interaction between the two factors or included user characteristics as part of the research model. The current study solves this problem by measuring user cognitive styles and analyzing the main effects as well as the interaction of the different factors affecting the end-user query performance.

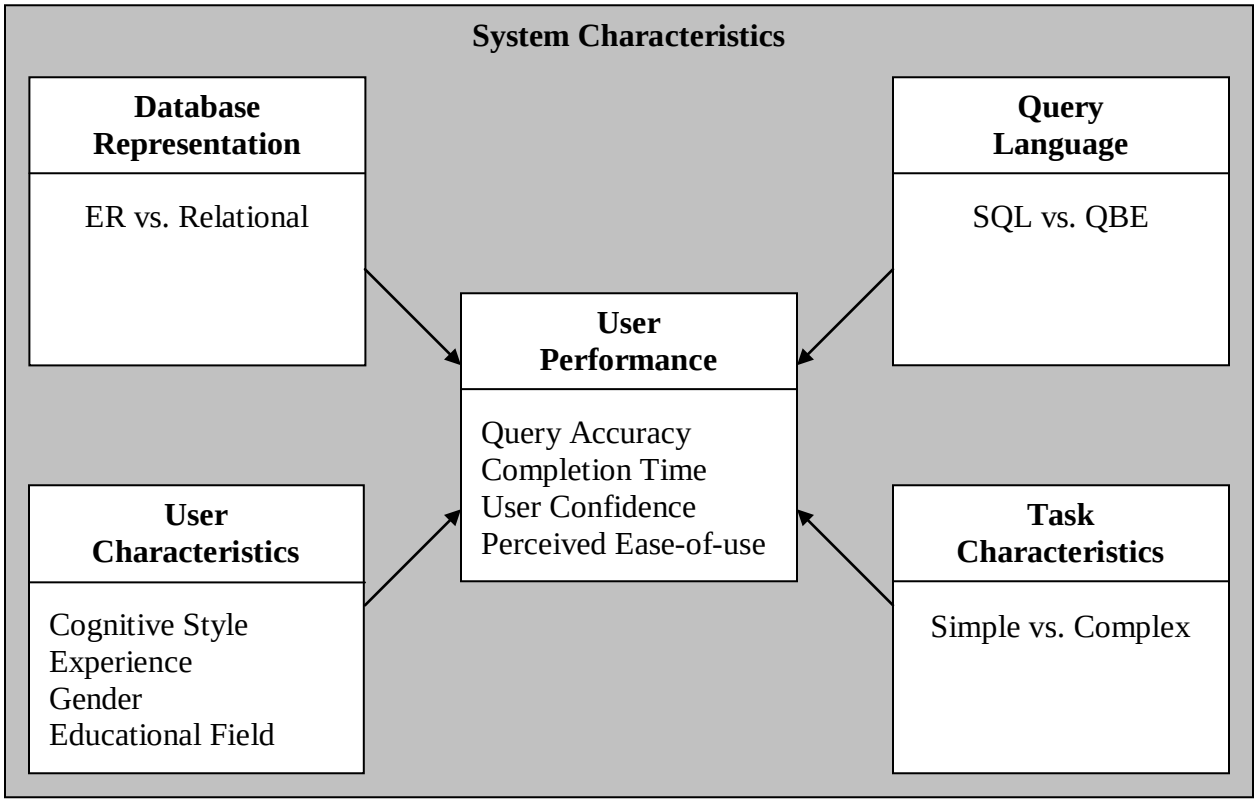
By better understanding how the end-user's cognitive style affects performance organizations can improve the way in which they train their employees on database concepts. By implementing separate sessions based on user's cognitive styles organizations would be able to more efficiently and effectively train employees. This would enable end-users to perform query tasks at a higher level with a lower investment in training. Also by understanding what effect cognitive styles can have on query performance professionals can improve their abilities by understanding what best suits their own particular. This study investigates the influence of database structure representation, query language, and user characteristics on user performance in the information retrieval process. In particular, this research project investigates the following research question: What is the impact of user characteristics (e.g., cognitive style) on the information retrieval task?

The rest of the paper is organized as follows. The next section describes the research model and cognitive styles literature and presents the research question. The third section explains the research methods. The fourth section reports the experimental results. The last section discusses the study results, conclusions, limitations and future research.

RESEARCH QUESTION

Based on the IS data model and query language literature, the current study developed a research model to explain user's performance in query writing tasks. Database representations, query languages, task characteristics, and user characteristics are identified as important factors influencing the user's performance (see Figure 1). Dunn and Grabski (2002) have suggested a similar research framework.

Figure 1
Query Writing Performance Research Model



Prior IS and decision making literature suggests that individual differences may explain differences in user performance (Hoffer, 1982; Gul, 1984; Reisner, 1981; Yen and Scamell, 1993). Benbasat and Dexter (1979) emphasize that knowledge of individual differences can improve information system design based on an understanding of user characteristics.

Cognitive styles refer to the preferred way an individual receives, stores, processes and transmits information (Pratt, 1980; Gul, 1984; Riding and Rayner, 1998). Cognitive style is described as a personality dimension which influences attitudes, values, and social interaction. A number of cognitive styles have been identified and studied over the years (e.g., verbalizer-imagery, Paivio, 1971; adaptor-innovator, Kirton, 1976; field dependent-independent, Witkin et al., 1971; assimilator-explorer, Kaufmann, 1989).

The embedded figure test (EFT; Witkin et al., 1971) is a well-known style construct. The EFT measures field independence versus field dependence. A person categorized as field independent perceives a field in terms of its component parts; parts are distinguished from the background (e.g., analytic). A person possessing the field dependence cognitive style perceives a field as a whole; parts are fused with the background (e.g., wholist). EFT has a major problem in distinguishing style from ability (Rayner and Riding, 1997). A major criticism of field independence as assessed by the EFT is that it is, at least in part, a measurement of ability. Grigerenko and Sternberg (1995) have argued that the EFT actually measures an individual's intellectual capacity. Grigerenko and Sternberg (1995, 209) concluded that "field dependence is a deficit rather than a style."

With the exception of the Witkin et al. (1971) field-dependence-independence style construct, few examples of the practical application of style in education, training, business or personal development can be found. Unfortunately, the Witkin et al. (1971) approach is apparently flawed because field-dependence-independence is correlated with ability (i.e., Riding and Rayner, 1998, 22-23). Both style and ability may affect performance on a given task. The basic distinction between them is that, as ability increases, performance on all tasks will improve, whereas the effect of style on performance for an individual will either be positive or negative, depending on the nature of the task.

Richardson (1977) developed the verbalizer-visualizer questionnaire (VVQ) to measure individual differences in cognitive style of imaging. Results of several studies (Edwards and Wilkins, 1981; Parrott, 1986; and Boswell and Pickett, 1991) demonstrated problems with the construct validity of the VVQ.

Riding and Cheema (1991) found over 30 labels relating to cognitive/learning style and, after reviewing the descriptions, correlations between them, methods of assessment, and effect on behavior, grouped them into two principal cognitive style dimensions; the wholist-analytic (WA) style dimension and the verbal-imagery (VI) style dimension. Further reviews by Rayner and Riding (1997), and Riding and Rayner (1998, chapter 2), support this conclusion. The two basic dimensions of cognitive style may be summarized as follows:

1. The WA style dimension is defined as whether an individual tends to organize information into wholes or parts.
2. The VI style dimension is defined as whether an individual is inclined to represent information during thinking verbally or in mental pictures.

Riding and his colleagues (Riding and Cheema, 1991; Rayner and Riding, 1997; Riding and Rayner, 1998) argue that the various cognitive style labels likely can be accommodated in a two-dimensional model of style. The two-dimensional model reduces cognitive style to a manageable construct and, if accurate, greatly enhances the potential of cognitive style to be considered in further research.

This approach resulted in the development of an instrument, the Cognitive Styles Analysis test (CSA thereafter; Riding, 1991), which provides relatively direct measures for each of the two fundamental dimensions. The rationale behind the CSA is described by Riding and Cheema (1991), Rayner and Riding (1997), Riding and Rayner (1998, 44-47).

Therefore, the CSA was used in this study to measure each participant's cognitive style. Based on this literature and the recommendation of prior IS research, the following research question is formulated.

RQ *What is the impact of end-user's characteristics (e.g., cognitive style) on performance in a query writing task?*

The main reason for formulating a research question instead of directional hypotheses is that this is the first study to include user characteristics as an important factor in user performance completing query writing tasks.

METHOD

The research question was investigated using a 2x2x2 factorial design laboratory experiment. Participants were undergraduate accounting and MIS students with no prior

exposure to data modeling and query writing. Participants were randomly assigned to four training groups (ER/SQL, ER/QBE, Relational/SQL, and Relational/QBE) and they wrote eight queries using the query tool and database representation for which they were trained.

Experimental Protocol

The experiment was divided into four phases: registering, training, testing, and completing the CSA. Training, testing and CSA phases were conducted using computers. Participants received class credit for completing all parts of the experiment.

A web application was designed for the training and testing phases. Standard database management textbooks (e.g., McFadden et al., 1999; Pratt, 2001; Pratt and Adamski, 2002) were consulted to create the experimental materials, which were then reviewed by expert faculty. The final experimental procedures reflect their recommendations.

The training and testing phases required two different sessions separated a week apart. During the training phase, participants were given general instructions and a demographic questionnaire, which included age, gender, major, and level of experience with databases and query languages. Participants then received instruction on understanding a database structure representation, either ER or relational. Afterward, participants answered a series of multiple-choice questions to measure their understanding of database structure concepts. They also received explanatory feedback on each of their answers.

After the database structure representation training, participants received either QBE or SQL database query training, including topics such as simple retrieval, conditional selection, compound conditions, aggregate functions, sorting, grouping, and joining tables. These topics are the major parts of select queries. For each topic, participants viewed a sample query which illustrated the concepts.

At the end of each query topic, participants practiced their query procedures, receiving explanatory feedback with correct answers and explanations. According to Bonner and Walker (1994), practice with explanatory feedback increases procedural knowledge. At the end of training, a summary of the database structure representation characteristics and query language syntax and procedures was provided to each participant.

The testing phase consisted of four parts. First, the participants reviewed the training material. Second, they received a description of a database structure used by a company to store its sales order transactions and the relevant database structure representation they learned in the training phase. Third, the participants provided answers to eight different randomized queries using the query language they learned in the training phase. For each query, they indicated their confidence level regarding their answer and their opinion about the query complexity. Finally, participants completed a questionnaire measuring perceived ease-of-use.

A week after the testing phase, all participants completed the CSA to determine their cognitive style type. They also received a debriefing on the experiment and the correct answer for each query.

Independent Variables

Query language and data model are the between-subjects independent variables manipulated in this study. Query complexity is the within-subjects independent variable. Query complexity is based on Reisner's (1981) measurement scheme. A simple query requires the use

of simple mapping, simple selection, and/or simple condition. A complex query requires using two or more tables to obtain the information, compounding criteria, and/or grouping.

Covariates

The participant's cognitive style, as measured by the CSA score, is included as a user characteristic variable. The CSA score indicates the position of an individual on each of the fundamental style dimensions (WA and VI) by means of a ratio. The CSA is explained fully in Riding and Rayner (1998, 44-46). The ratios typically range from 0.4 through to 4.0 with a central value around 1.0. Multiple studies have found cognitive style to be a significant predictor of performance on decision making and data modeling task (Dunn and Grabski, 2001; Gul, 1984; Hoffer, 1982). Age, gender, major, and experience also are included as covariates.

Dependent Variables

This study measured the following dependent variables: query accuracy, query task completion time, user confidence, and perceived ease of use. For query accuracy, query solutions were developed, and a specific grading protocol was applied by two independent graders. Each participant's query solution was evaluated relative to the correct solution by both graders. Individual scores from both graders were compared. Concerning inter-rater reliability, Cohen's (1960) Kappa statistics for each query (all >0.8) and overall kappa (0.91) reflect almost perfect agreement between the two raters (Landis and Koch, 1977).

Query task completion time was measured as seconds spent completing each query. User confidence was measured separately for each query using an 11-point scale anchored at 0% (extremely unconfident) and 100% (extremely confident).

Perceived ease of use was measured using five 7-point Likert scale questions adapted from Davis (1989). The original instrument and adaptations have been used in prior studies with high reported reliability (Cronbach's alpha has ranged from 0.83 in Batra et al. [1990] to 0.93 in Amer [1993]). Cronbach's (1951) coefficient alpha (0.84) assessed the level of internal consistency reliability for the perceived ease-of-use construct as comparable to prior studies.

RESULTS

One hundred sixty-one undergraduate students majoring in accounting and MIS participated in the experiment. Accounting students were registered in their first introductory AIS course. MIS students were registered in their first introductory database course. After completion of the experiment, data for 123 participants were usable for analysis. The reduction in the number of participants is attributable to technical problems when implementing the experimental materials and to some participants who did not fully complete the experiment nor provide answers to every question.

Demographic Statistics

Demographic data of the accounting participants for the four different groups are reported in table 1. The number of participants in the four groups is similar ($\chi^2 = 0.84$, $p = 0.358$). No differences in gender are found among the four groups ($\chi^2 = 1.28$, $p = 0.733$). In each of the four groups, female participants form the majority. Concerning age, data for a 47 year-old participant were deleted from the sample because of their large effect. After the elimination, no significant

differences in age are found among the treatment groups (F = 3.02, p = 0.087). The means range between 20 and 22 years of age. Also, no significant differences among groups exist based on the number of courses taken prior to the experiment that deal with productivity software, programming languages, databases design, and databases software. The most experience that accounting participants received prior to the experiment is in the number of courses with productivity software as the main topic (one or two courses).

Table 1
Participant Demographic Statistics

Accounting		ER/SQL	ER/QBE	Rel/SQL	Rel/QBE	Test statistic	p-value
Number of participants		22	16	19	21	0.84†	0.358
Gender:	Male	10	6	7	11	1.28†	0.733
	[Female]	[12]	[10]	[12]	[10]		
Age:	Mean	20.5	20.87*	21.7	20.5	3.02‡	0.087
	(StDev)	(1.79)	(1.13)	(3.04)	(1.25)		
	[Median]	[20]	[21]	[21]	[20]		
Course #1[a]:	Mean	1.4	1.5	1.6	1.6	0.24‡	0.624
	(StDev)	(0.66)	(0.97)	(0.83)	(1.03)		
	[Median]	[1]	[1.5]	[2]	[2]		
Course #2[b]:	Mean	0.5	0.5	0.2	0.3	0.16‡	0.693
	(StDev)	(0.86)	(0.73)	(0.42)	(0.56)		
	[Median]	[0]	[0]	[0]	[0]		
Course #3[c]:	Mean	0.3	0.4	0.3	0.4	0.02‡	0.894
	(StDev)	(0.55)	(0.72)	(0.58)	(0.59)		
	[Median]	[0]	[0]	[0]	[0]		
Course #4[d]:	Mean	0.0	0.2	0.0	0.1	2.05‡	0.156
	(StDev)	(0.00)	(0.408)	(0.00)	(0.22)		
	[Median]	[0]	[0]	[0]	[0]		
WA CS[e]:	Wholist	4	4	4	6	3.92†	0.688
	Intermediate	7	2	7	7		
	Analytic	11	10	8	8		
VI CS[f]:	Verbalizer	7	5	3	9	10.03†	0.123
	Bimodal	5	9	7	5		
	Imager	10	2	9	7		

[a] Number of courses - main topic: productivity software
[b] Number of courses - main topic: programming languages
[c] Number of courses - main topic: databases design
[d] Number of courses - main topic: databases software
[e] Wholist-Analytic Cognitive Style
[f] Verbalizer-Imager Cognitive Style
† χ^2-statistic
‡ F-statistic
* One observation with a value of 47 for age was deleted from the sample because of large effect on the sample. Including this data will change the mean (standard deviation) to 22.5 (6.62) and change F (p-value) to 3.96 (0.05)

Table 1 (cont.)
Participant Demographic Statistics

MIS		ER/SQL	ER/QBE	Rel/SQL	Rel/QBE	Test statistic	p-value
Number of participants		12	7	14	11	0.23†	0.632
Gender:	Male	8	5	12	7	1.88†	0.598
	[Female]	[4]	[2]	[2]	[4]		
Age:	Mean	20.3	20.7	22.0	21.2	0.43‡	0.518
	(StDev)	(1.56)	(1.50)	(4.49)	(2.14)		
	[Median]	[20]	[20]	[20]	[20]		
Course #1[a]:	Mean	1.1	1.0	1.3	0.9	0.31‡	0.582
	(StDev)	(0.79)	(0.82)	(0.73)	(1.04)		
	[Median]	[1]	[1]	[1]	[1]		
Course #2[b]:	Mean	2.9	2.3	2.6	3	2.91‡	0.096
	(StDev)	(0.90)	(0.76)	(1.22)	(0.89)		
	[Median]	[3]	[2]	[3]	[3]		
Course #3[c]:	Mean	0.1	0.3	0.1	0.4	0.00‡	0.950
	(StDev)	(0.29)	(0.49)	(0.36)	(0.67)		
	[Median]	[0]	[0]	[0]	[0]		
Course #4[d]:	Mean	0.0	0.1	0.1	0.1	1.12‡	0.296
	(StDev)	(0.00)	(0.38)	(0.36)	(0.30)		
	[Median]	[0]	[0]	[0]	[0]		
WA CS[e]:	Wholist	1	2	2	3	9.11†	0.168
	Intermediate	8	1	3	4		
	Analytic	3	4	9	4		
VI CS[f]:	Verbalizer	3	2	1	2	4.36†	0.628
	Bimodal	4	2	7	2		
	Imager	5	3	6	7		

[a] Number of courses - main topic: productivity software
[b] Number of courses - main topic: programming languages
[c] Number of courses - main topic: databases design
[d] Number of courses - main topic: databases software
[e] Wholist-Analytic Cognitive Style
[f] Verbalizer-Imager Cognitive Style
† χ^2-statistic
‡ F-statistic

Table 1 also presents the demographic data for the four MIS groups. Nonparametric tests, to evaluate the equal sample sizes among the four groups, resulted in no significant differences in terms of number of participants ($\chi^2 = 0.23$, $p = 0.632$). No significant differences were found among the four groups based on gender, age, and prior educational experiences.

In contrast to the accounting participants, more MIS participants are males. Compared to the accounting students, MIS students have more programming background ($median_{course\#2,\ MIS} = 3$, $median_{course\#2,\ Acc} = 0$). This finding should impact participant performance in completing the query task. MIS groups who used SQL as a query tool may be more comfortable typing the SQL code than using the mouse. These differences in educational experience and gender between the accounting and MIS participants are the reason for separating the two groups when investigating the results.

Finally, table 1 reports the cognitive styles of the accounting and MIS participants. The data are reported for the WA cognitive style dimension and the VI cognitive style dimension.

Accounting and MIS participants are not different in terms of their WA cognitive styles (χ^2 = 0.756, p = 0.685). Overall, 47 percent of the accounting participants are analytics, compared to 23 percent that are wholists. Similar results are found for the MIS participants (46 percent analytics and 18 percent wholists). No differences between accounting and MIS participants exist based on their VI cognitive style (χ^2 = 2.684, p = 0.261). In term of their VI cognitive styles, the accounting groups are equally divided. More MIS students are imagers (48 percent) than verbalizers (18 percent).

CSA Construct Validity and Reliability

In considering psychological assessments, the most important features of a test are its construct validity and its reliability. With research into the CSA, the primary emphasis has been to demonstrate its validity. Considerable evidence is now available to support the validity of the CSA. This was previously reviewed by Riding and Rayner (1998). The CSA is also culture-free in nature, and it has been used in a number of countries (Riding and Rayner, 1998).

An indication of reliability is built into the CSA. The CSA output shows both a speed index and the percentage correct for each of the dimensions of style. These indices are an indication of how carefully individuals completed the CSA, and whether they were able to complete it. Table 2 reports on the means (standard deviation) of these indices for each manipulation group, combining accounting and MIS participants together. The speed indices for the WA cognitive style and VI cognitive style across all manipulation groups are less than 10. This finding suggests that the participants took the test seriously. The percentage correct is also above 70 percent. This indicates that the CSA is reliable

Table 2
CSA Construct Reliability

Variable	Group	Mean	Median	StDev	Minimum	Maximum
WA Speed Index	ER/SQL	5.48	5.14	1.67	2.81	8.89
	ER/QBE	5.47	5.06	1.72	3.06	8.27
	Rel/SQL	5.65	5.16	2.19	2.33	12.13
	Rel/QBE	5.74	5.20	1.95	1.96	9.23
VI Speed Index	ER/SQL	3.25	3.09	0.79	1.66	5.39
	ER/QBE	3.02	2.94	0.80	1.50	4.99
	Rel/SQL	3.23	2.93	0.95	2.16	6.07
	Rel/QBE	3.17	2.88	0.88	1.55	4.92

Table 2 (cont.)
CSA Construct Reliability

Variable	Group	Mean	Median	StDev	Minimum	Maximum
WA Percentage Correct	ER/SQL	97	98	4	85	100
	ER/QBE	97	98	4	88	100
	Rel/SQL	98	98	2	93	100
	Rel/QBE	97	98	5	80	100
VI Percentage Correct	ER/SQL	93	94	5	79	100
	ER/QBE	91	92	5	79	98
	Rel/SQL	93	94	6	79	100
	Rel/QBE	91	93	7	60	98

ANOVA Results

The research question was analyzed using a repeated measures general linear model. The factors data model and query language are crossed factors while complexity is a repeated measures factor. User characteristics defined by age, gender, experience, and cognitive styles are included in the model as covariates. Experience is the total number of courses with productivity software, programming languages, database design and software as topics. Query accuracy, task completion time, user confidence, and perceived ease-of-use were each analyzed separately.

Statistical analysis was computed first by including both accounting and MIS participants as part of the sample. Major was one of the covariates and was significant for query accuracy, user confidence, and perceived ease-of-use ($p = 0.003$, $p = 0.001$, $p<0.001$, respectively). General linear model was computed to see the existence of a three-way interaction among data model, query language, and major. Only the three-way interaction is significant for perceived ease-of-use ($F = 5.88$, $p = 0.017$). The following paragraphs present the results for each type of participant treated separately.

Table 3, panel A presents ANOVA results with query accuracy as the dependent variable for the accounting participants and the MIS participants. For the accounting participants, no interaction or main effects for data model and query language were found ($F = 0.14$, $p = 0.706$). Gender and experience have a marginally significant impact on the complex query accuracy performance ($F = 3.03$, $p = 0.086$; $F = 2.92$, $p = 0.092$, respectively). For the MIS participants, the data model and query language interaction effect was significant ($F = 5.63$, $p = 0.023$ for simple queries; and $F = 3.90$, $p = 0.057$ for complex queries). Only gender was significant at the 0.055 level when MIS participants completed complex queries. No cognitive styles had a significant impact on query accuracy performance.

Table 3
Analysis of Variance

Panel A – Query Accuracy as Dependent Variable

Source	*d.f.*	Task Complexity: *Simple Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS	*Complex Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS
Independent Variables:									
Data Model	1	0.04	1.69	0.839	0.202	1.95	1.54	0.167	0.224
Query Language	1	1.91	3.62	0.172	0.066*	1.74	5.05	0.192	0.031*
Data Model x Query Language	1	0.14	5.63	0.706	0.023*	1.17	3.90	0.283	0.057*
Covariates:									
Age	1	1.04	0.83	0.312	0.368	0.81	0.61	0.371	0.438
Gender	1	2.57	1.38	0.113	0.248	3.03	3.95	0.086*	0.055*
Experience	1	0.47	0.18	0.494	0.676	2.92	1.25	0.092*	0.271
WA Cognitive Style	1	1.34	0.02	0.252	0.880	0.14	0.61	0.709	0.440
VI Cognitive Style	1	0.65	0.37	0.421	0.547	1.85	1.07	0.178	0.309

Panel B – Time Completion as Dependent Variable

Source	*d.f.*	Task Complexity: *Simple Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS	*Complex Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS
Independent Variables:									
Data Model	1	0.42	0.71	0.521	0.407	0.34	0.90	0.565	0.349
Query Language	1	17.12	29.21	0.000*	0.000*	5.30	11.46	0.024*	0.002*
Data Model x Query Language	1	0.07	8.79	0.794	0.006*	1.31	0.19	0.256	0.663
Covariates:									
Age	1	0.56	2.53	0.457	0.121	0.52	0.47	0.475	0.497
Gender	1	0.89	0.33	0.348	0.568	0.42	0.55	0.521	0.464
Experience	1	0.42	2.57	0.519	0.118	0.68	0.05	0.411	0.817
WA Cognitive Style	1	8.03	5.06	0.006*	0.031*	4.33	5.50	0.041*	0.025*
VI Cognitive Style	1	0.12	0.35	0.734	0.558	3.10	0.01	0.083*	0.920

Panel C – User Confidence as Dependent Variable

Source	*d.f.*	Task Complexity: *Simple Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS	*Complex Queries* *F*-Statistic Acc	*F*-Statistic MIS	*p*-value Acc	*p*-value MIS
Independent Variables:									
Data Model	1	1.90	0.00	0.173	0.957	0.54	0.90	0.465	0.349
Query Language	1	0.65	0.06	0.422	0.803	2.47	11.46	0.121	0.002*
Data Model x Query Language	1	0.04	8.91	0.846	0.005*	0.88	0.19	0.351	0.664
Covariates:									
Age	1	1.04	2.08	0.312	0.159	0.17	0.47	0.685	0.497
Gender	1	1.03	0.23	0.314	0.635	0.47	0.55	0.494	0.464
Experience	1	2.96	0.43	0.090*	0.515	0.75	0.06	0.388	0.817
WA Cognitive Style	1	0.62	0.00	0.433	0.996	1.47	5.51	0.230	0.025*
VI Cognitive Style	1	0.09	0.38	0.761	0.543	0.89	0.01	0.349	0.919

* Significant at 0.10 level.
** Significant at 0.05 level.

Table 3 (cont.)
Analysis of Variance

Panel D – Perceived Ease-of-Use as Dependent Variable

Source	*d.f.*	*F*-Statistic		*p*-value	
Independent Variables:		Acc	MIS	Acc	MIS
Data Model	1	0.03	1.16	0.870	0.289
Query Language	1	0.64	0.05	0.427	0.833
Data Model x Query Language	1	1.87	13.19	0.176	0.001**
Covariates:					
Age	1	0.01	0.00	0.924	0.957
Gender	1	6.92	0.15	0.011**	0.697
Experience	1	5.10	1.02	0.027**	0.320
WA Cognitive Style	1	10.83	0.90	0.002**	0.348
VI Cognitive Style	1	0.38	0.14	0.541	0.709

* Significant at 0.10 level.
** Significant at 0.05 level.

Query task completion time ANOVA is reported in table 3, panel B for accounting participants and MIS participants. For the accounting participants, no interaction effect was found. A main effect of query language was observed for both levels of query complexity ($F = 17.12$, $p < 0.001$; and $F = 5.30$, $p = 0.024$, respectively). The WA cognitive style is significant at the 0.05 level for both type of queries. The VI cognitive style is marginally significant for complex queries ($F = 3.10$, $p = 0.083$). For the MIS participants, an interaction effect was found for simple queries ($F = 8.79$, $p = 0.006$) and a main effect of query language for complex queries ($F = 11.46$, $p = 0.002$). Similar to the accounting participants, the WA cognitive style was significant at the 0.05 level for both levels of complexity.

Table 3, panel C reports the ANOVA with user confidence as the dependent variable for both types of participants. For the accounting participants, the results do not show any interaction and main effects for both level of complexity. Only experience is marginally significant at the 0.1 level. For the MIS participants, the data model and query language interaction effect was found to be significant for simple queries ($F = 8.91$, $p = 0.005$). None of the user characteristics was found to have an effect on the user confidence for writing simple queries. For complex queries, a main effect of query language was observed ($F = 11.46$, $p = 0.002$). The WA cognitive style played a role in the user confidence ($F = 5.51$, $p = 0.025$).

ANOVA with perceived ease-of-use as the dependent variable is reported in table 3, panel D for accounting and MIS participants. No interaction effect or any main effect was observed for the perceived ease-of-use for the accounting participants. Gender, experience, and WA cognitive style were found to have a significant effect on the perceived ease-of-use ($F = 6.92$, $p = 0.011$; $F = 5.10$, $p = 0.027$; $F = 10.83$, $p = 0.002$, respectively). Table 3, panel D shows an interaction effect of data model and query language for the MIS participants ($F = 13.19$, $p = 0.001$). None of the MIS user characteristics covariates were found to be significant.

DISCUSSION AND CONCLUSION

User characteristics were found to play a significant role in the experiment's participants regardless of their professional field. In particular, the WA cognitive style dimension was significant for the query task completion time. Table 4 shows the mean (standard deviation) time for each accounting manipulation group and for each WA cognitive style. Table 5 shows the same type of information for the MIS participants. Regardless of the level of complexity, the

wholist cognitive style groups completed the query task consistently faster than the analytic cognitive style groups.

Table 4
Accounting Participants Query Task Completion Time per WA Cognitive Styles

Panel A: Complexity Level – Simple Queries			
	WA Cognitive Style Dimension		
Groups	Wholist	Intermediate	Analytic
ER/SQL	05:42 (00:51)	07:08 (02:31)	09:04 (01:46)
ER/QBE	04:45 (01:11)	04:46 (02:24)	06:07 (05:05)
Rel/SQL	07:24 (02:08)	07:28 (03:23)	09:50 (02:46)
Rel/QBE	03:59 (01:41)	05:47 (01:17)	05:49 (02:16)
Overall	05:18 (01:56)	06:37 (02:32)	07:44 (03:36)
Panel B: Complexity Level – Complex Queries			
	WA Cognitive Style Dimension		
Groups	Wholist	Intermediate	Analytic
ER/SQL	09:14 (03:52)	11:41 (04:37)	12:32 (03:13)
ER/QBE	09:47 (03:10)	12:11 (03:55)	09:50 (04:49)
Rel/SQL	13:40 (06:09)	12:17 (06:19)	14:20 (03:17)
Rel/QBE	05:55 (02:38)	09:44 (03:54)	11:24 (06:13)
Overall	09:14 (04:40)	11:19 (04:46)	11:57 (04:35)

Table 5
MIS Participants Query Task Completion Time per WA Cognitive Styles

Panel A: Complexity Level – Simple Queries			
	WA Cognitive Style Dimension		
Groups	Wholist	Intermediate	Analytic
ER/SQL	07:15 (00:00)	06:12 (01:27)	06:22 (00:54)
ER/QBE	04:17 (00:44)	03:45 (00:00)	06:00 (03:01)
Rel/SQL	07:20 (00:46)	06:55 (01:44)	08:59 (02:25)
Rel/QBE	03:25 (00:03)	03:24 (01:10)	04:20 (00:59)
Overall	05:06 (01:55)	05:29 (01:56)	07:04 (02:47)
Panel B: Complexity Level – Complex Queries			
	WA Cognitive Style Dimension		
Groups	Wholist	Intermediate	Analytic
ER/SQL	10:16 (00:00)	12:15 (02:52)	13:01 (01:55)
ER/QBE	05:20 (02:42)	05:05 (00:00)	11:53 (05:00)
Rel/SQL	14:37 (04:01)	12:01 (02:01)	14:53 (05:04)
Rel/QBE	09:25 (01:30)	07:05 (04:35)	10:59 (03:04)
Overall	09:48 (04:03)	10:28 (03:58)	13:13 (04:24)

The VI cognitive style is marginally significant for the accounting end-users, only for complex queries. Running the general linear model with data model, query language, and VI cognitive style as independent variables, produces an interaction between the data model and VI

cognitive style ($F = 4.22$, $p = 0.019$) and the main effect for the query language is still significant ($F = 6.99$, $p = 0.010$). The accounting verbalizer end-users using the relational model completed the complex tasks faster than the accounting imager end-users using the relational model ($mean_{relational,verbalizer}$ = 8:15 and $mean_{relational,imager}$ = 14:16). The accounting imagers using the ER model completed the task faster than the accounting verbalizer using the ER model ($mean_{ER,imager}$ = 10:46 and $mean_{ER,verbalizer}$ = 11:49). Verbalizers prefer information presented as words (relational model) whereas imagers represent information better with pictures (ER model). This finding indicates that matching individual end-users' preferred VI cognitive styles to the preferred database structure representation improves the task efficiency in term of completion time. Accounting DBMS should be documented so that users can reference the database structure representation that best fits their preferred cognitive style.

The WA cognitive style also affects the MIS end-user's confidence level. Overconfidence may explain the current findings, but additional research needs to be done to investigate this issue. The WA style dimension is defined as whether an individual tends to organize information into wholes or parts. Wholist groups, regardless of their educational background, consistently completed the query writing task faster than the analytic groups. This finding is not surprising because the wholist personalities can approach the problem as a whole, see the big picture, and quickly find the location of the information needed for the database query. The analytic personalities spend too much time looking at individual parts of the problem. The separation of the whole database structure representation into its individual tables means that one subset of the whole problem gets the user's attention at the expense of the other problem elements. Hence its overall importance is exaggerated.

This finding has implications for learning and training. Learning can be made more effective both by matching cognitive style to materials and presentation mode and structure, and through strategy development to maximize style effectiveness (Riding and Sadler-Smith, 1997; Riding and Rayner, 1998, chapter 4). Training can be more effective and will result in cost savings for organizations by implementing separate trainings for each cognitive style represented in the training group. Cognitive style also can be used in personal and career development since it is related to job suitability and occupational stress. The wholist cognitive style seems to be better suited to query writing tasks than the other cognitive styles. To help the trainee to form an appropriate structure of the database, a graphical representation may be provided as an aid. Riding and Sadler-Smith (1992) investigated the effect on learning performance of overviews and organizers in a computer-based learning package. The authors suggest that analytics may benefit from a global web-type organizer showing the interrelationships and horizontal linkages. Thus, the ER model could be more useful to analytic cognitive style end-users.

The study also reveals that the tendency to think visually or verbally does not impact on the user performance. VI cognitive style is not significant across dependent variables. Riding and Sadler-Smith (1992) suggest a model for the interaction of cognitive style, learning performance and the mode of presentation (images versus text). Imagers are expected to benefit more than verbalizers from the presentation of information in a diagrammatic form (e.g., ER model and QBE language). Verbalizers are expected to benefit more than imagers from a textual presentation (e.g., relational model and SQL language). When the trainee receives and uses information that is not congruent with its cognitive style, then learning performance is likely to be impaired. The current study does not support this theory for the mode of presentation.

This study contributes to both the academic arena and the professional world. This research extends the literature by expanding the research model used. As prior research has

recommended, user characteristics, such as cognitive style and professional skills, are explicitly included in the research model, where these had been ignored before. Different combinations of database structure representation and query language are best suited depending on the measure of performance used and on the user characteristics. There are implications of these results in the professional world. When organizations better understand the need to match the method of training to fit the cognitive style of the trainees, they will be able to reduce costs and increase results, which in turn increase the return on the investment made in the training. Also, professionals who struggle with database technology can improve their query performance by understanding their own cognitive style and focusing their efforts on methods that are compatible.

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TRAITS POSSESSED BY PRINCIPALS WHO TRANSFORM SCHOOL CULTURE IN NATIONAL BLUE RIBBON SCHOOLS

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ABSTRACT

The purpose of this study was to identify common personal and professional strategies present in successful principals who lead National Blue Ribbon Schools in a southern state. This study attempted to reveal concrete strategies and traits that can be implemented and emulated by current and aspiring school administrators offering them insight into what strategies are conducive to effective school leadership. The study also sought to determine whether a correlation existed between the leadership practices of these national blue ribbon school administrators and the overall culture of the school as measured by the level of teacher morale present in these schools. The Leadership Practices Inventory (LPI) was administered in order to identify those leadership traits and qualities as reported by the leaders' subordinates as compared to how the leader rated him or herself on the these qualities. Approximately 500 teachers/counselors and 20 principals/assistant principals participated in the study. A non- random sampling of seven National Blue Ribbon Schools from the elementary, middle, and high school level in this southern state participated in the study.

Administrators rated their primary leadership traits by using the Leadership Practices Inventory (self). Each administrator rated their primary leadership traits using a Likert scale employed by the Leadership Practices Inventory. Data obtained from the study suggested that principals rated themselves slightly higher than did their staff members according to the five sub-scales (model the way, inspire a shared vision, challenge the process, enable others to act, and encouraging the heart) of the LPI. The Purdue Teacher Opinionaire (PTO) was also administered to rate teacher morale in these National Blue Ribbon Schools. The abbreviated version of the inventory was used consisting of three sub-scales; teacher rapport with the principal, rapport among teachers, and instructional issues. The PTO is based on a four point Likert type scale; 1 = disagree, 2 = probably disagree, 3 = probably agree, and 4 = agree.

Respondents who completed the PTO rated teacher rapport with principal 3.36, rapport among teachers 3.46, and instructional issues 3.48. These results on the PTO indicate that teacher morale was reported to be very high on each of the selected indicators. A multiple regression was then run to determine whether a correlation existed between teacher morale and principal leadership traits. The results of this test indicated that there was a correlation between teacher morale and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart.

INTRODUCTION

The ability of a principal to lead the students of the new millennia is based on his or her ability to set goals of excellence for teachers, students, staff and themselves. The principal must be the catalyst for enhancing and transforming the culture of the school in a positive and progressive manner thereby improving student learning. The purpose of this study was to identify common personal and professional qualities as well as strategies of a successful principals who lead National Blue Ribbon Schools in a Southern State. Data from this study may be used to inform administrators and aspiring administrators of common qualities and characteristics present in highly effective principals. The principal sets the tone and creates the culture for which teaching and learning takes place. If the principal is thoroughly analyzing, implementing, and evaluating the academic and social culture of his or her school they become better positioned to positively impact student achievement.

REVIEW OF RELATED LITERATURE

Transformational Leadership

Burns (2003) contends that leaders in conjunction with the individuals that follow them create a symbiotic relationship that produces positive and significant heights of institutional morale and motivation. Burns believed that true transformational leaders lead by example and have the ability to articulate the goals of the organization which promotes a sense of excitement and moral obligation from the followers (Burns, 2003).

Burns (2003) further asserted that through this positive cultural change the leader will motivate his or her followers to produce greater results as a result of the cultural environment being conducive for collaborative networking, mutual respect, and mentoring. Principals who possess these traits and many others are usually successful transformational leaders who produce improved student outcomes. Burns (1978) defined transformational leadership as one that elevates, mobilizes, inspires, and uplifts followers. He stated that by satisfying subordinates' needs and wants, leaders exert influence on their followers. Bass (1985) described transformational leaders as important agents of change. This leadership style has been defined based on its effects, transforming the values and priorities of followers and motivating them to perform beyond their expectations (Kark & Van Dijk, 2007; Yukl, 1998). Northouse (1998) described it as a process that changes and transforms individuals.

Howell and Avolio (1993) noted that transformational leaders have a vision for the organization and they project that vision onto the members of the organization. "The overriding element of successful leadership is to involve people in the process of leading" (Horan, 1999, p. 21). Transformational leadership is about getting everyone involved in the decision-making. A defining factor of transformational leadership is that importance is placed on taking risks and creatively solving problems through the solicitation of group members (Bass, Avolio, Jung, & Berson, 1989). Transformational leaders are not constrained by the boundaries or rules of an organization, but rather change or align the organization to accommodate their vision (Howell & Avolio, 1993).

Transformational Leadership theories contain the following five common leader characteristics: creative, interactive, visionary, empowering, and passionate (Hackman & Johnson, 2000). Kouzes and Posner (2002) listed five practices of exemplary leaders: model the way (interactive), inspire a shared vision (visionary), challenge the process (creative), enable others to act (empowering), and encourage the heart (passionate) (Rowland, 2008). Other researchers have paralleled those thoughts with the described characteristics of transformational leaders: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985; Bass & Avolio, 1993; Howell & Avolio, 1993; Sivanathan & Fekken, 2002).

Best Practices

The diagnosis of a school's strengths and deficiencies are imperative for the academic reversal of a low performing school as cited by Portin, Schneider, Dearmond and Gundlack (2003). Duke et al., posed the question of, "Are some principals unsuccessful because of what they do to address perceived problems, or are they unsuccessful because they misperceive the problems in the first place?" Leithwood et al., (2010) cited that there are four categories that contribute to progressive and successful principals; developing people, re-culturing the school, clear and concise school mission and consistent analysis of classroom instruction. Leithwood et al. (2010) states that the dominate leadership strategy which was implemented successfully by principals were often overseen when analyzing classroom instruction. Leithwood's et al. (2010) study indicates that the children who show the most to gain academically are scholars from minority and low income families.

Epstein et al. (2011) explained that the data from their study suggested a correlation between the principal and support received from the school district is paramount for improved student outcomes. Epstein et al. (2011) suggest that a school's basic programs must be in place to reach out to the families of scholars which will prepare the student for more intense challenges in their future. The study of Epstein et al. (2011) indicates that analyzing student outcomes and making adjustments to teacher instruction is imperative to creating a culture of excellence.

Epstein et al. (2011) conclude with the results of their study which suggest that shared school endeavors, evaluation of student outcome data and shared collaborative leadership in a school will promote an academic and social equity for improved school culture. Epstein et al. (2011) confirm that the collaborative support for the families of scholars an also the involvement of community members is the cornerstone of school partnership programs.

Rammer (2007) poses the question; do superintendents use the twenty one responsibilities of successful principals as cited by Waters, Marzano, and McNulty (2004) to hire principals? The use of these twenty one responsibilities to hire principals is a template for acquiring high achieving administrators. The premise is that high performing schools have effective principals (Hallinger, 2011; Lezotte, 2011). The principal that is an effective leader is the heartbeat of that school's high performance (Lindahl, 2007). Rammer (2007) suggested that there are specific skills, traits, behaviors and responsibilities that effective principals must possess. Early research conducted by Lezotte (2011) suggested that there is a direct correlation between instructional leadership and effective schools. Peterson (1999) contends that a principal without a good leadership skill set will be unsuccessful. Principals who are good leaders can cultivate the ideology

in which learning is inclusive for all children. This ideology should successfully become the mission statement of the school and then be communicated through the vision of a principal and disseminated to his or her subordinates (Lezotte, 2011).

Strategies for Improved School Culture

The ability of a principal to monitor student progress closely is a strong indicator of a school that is high performing (Lezotte & Snyder, 2011). Principals who are effective attend teacher team level meetings consistently, visit classrooms daily and are well versed on what it takes to improve student achievement in his or her schools (Elmore, 2000). Deal and Peterson (2009) assert that through personal interactions with teachers, a principal can have a profound impact on instruction and learning. This research suggests that this is one way for principals to produce a school culture that is conducive for academic and social growth. It is suggested as best practice that principals consistently evaluate student performance to map instructional decisions (Leithwood & Jantzi, 2000). According to Leithwood and Jantzi (2008) principals and other school leaders who believe that the end result of education should be to improve student learning and outcomes, they represent the primary reason that the teaching profession exists and will continue to flourish as effective and progressive school cultural reformist.

An important factor in building school culture is the principal assuming responsibility for instructional leadership and focusing on key instructional areas for the school (Nettles & Herrington, 2007). It is suggested that effective principals facilitate the collaborative instructional efforts of teachers (Nettles & Herrington, 2007). The instructional emphasis is placed on monitoring and mapping instruction, communicating precise goals of the school to stakeholders and building a culture of improved teaching and learning (Peterson & Deal, 2009).

Hoy and Miskel (2005) assert that school climate is, "the set of internal characteristics that distinguish one school from another and influence the behaviors of each schools members." Kottkamp (2010) further explains that a progressive social culture encompasses positive social activities, shared progressive values, and a common purpose. "School climate is the relatively enduring quality of the school environment that is experienced by participants, affects his or her behavior, and is based on their collective perception of behavior in schools" (Hoy & Tarter, 2006).

A positive and progressive school culture propagates morale, staff performance and student enrichment. School culture is regarded as one of the important variables that lead to progressive school reform (Rhodes et al., 2009). Children that do not experience a supportive school culture may never achieve proficiency or academic excellence (Rhodes et al., 2009).

Progressive culture is infectious; it will continue to propagate into a culture of excellence, becoming the norm and not the exception. Researchers have deduced that the relationship between administrators and teachers have a direct correlation with a positive student culture (Rhodes et al., 2009). Kelley, Thornton and Daugherty (2005) explain that if teachers perceive their principal's leadership style as inconsistent, teacher morale will suffer. Teachers and staff members yearn for a working environment that is challenging as well as supportive. They further assert that teachers thrive in cultural environments that are conducive to positive academic growth.

Robinson, Lloyd, and Rowe (2008) suggested that a principal who communicates high expectations for his or her school will foster progressive student achievement. Principals that

monitor classroom instruction and ensure that the standard of excellence is not sacrificed provide a consistent ideology that is adhered to (Teddie & Reynolds, 2000). Teddie and Reynolds (2000) also explain that high performing principals must expect teachers and staff to analyze school circumstances before implementing a teaching strategy and demand that staff members participate in professional development. The principal must also insist that staff members prioritize, manage and commit to improved academic instruction. Lezotte & Snyder (2011) contend that there is a direct correlation to professional development and high performing teachers, this effective professional development is provided by high performing principals.

Principals who are successful take this a step further by attending the professional development programs and placing an emphasis on acquiring future professional development to stimulate a progressive school culture (Nettles & Herrington, 2007). Nettles and Herrington (2007) contend that research also has been conducted to link a principal's behavior and student achievement, but no specific principal professional or personal traits and behaviors have been identified. On the contrary, Waters, Marzano, and McNulty (2003) lead a meta-analysis of seventy leadership studies and identified twenty one behaviors of principals that contribute to student achievement (a) Culture; (b) Discipline; (c) Order; (d) Resources; (e) Curriculum knowledge; (f) Assessment; (g) Instruction; (h) Curriculum involvement; (i) Vision; (j) Focus; (k) Contingency rewards; (l) Outreach; (m) Communication; (n) Affirmation; (o) Input; (p) Positive staff relationships; (q) Role optimizer; (r) Change agent; (s) Morals and beliefs; (t) Monitoring and evaluating; (u) Flexibility; (v) Situational awareness; (w) Intellectual enhancer.

These traits when combined with specific intangibles of each school provide a framework from which principals can develop strategies to enhance the culture of the school. These traits also act as a guide for developing improved teaching and learning skills that will benefit student outcomes. The goal of these specific traits is to provide academic enhancement. Waters et al. (2003) suggests that the primary goal of a principal is to possess these traits and strategies for school improvement and secondly know how and when to implement these skills effectively.

Day (2005) contends that high performing principals have an innate ability to reform and cultivate teaching and learning practices that promote a trusting school culture and community involvement leading to increased student achievement. The importance of a principal facilitating social capital in a school is central to the ideology of schools becoming community-centered organizations (Gurr, Drydale & Mulford, 2005). Ms. Martinez, a principal in the study, conveyed and modeled behaviors of high expectation and excellence in the classroom which became infectious for her students and staff (Ramalho, Garza & Merchant, 2010). Ms. Martinez places an emphasis on her open door policy. Her staff explain that whenever teachers need to discuss personal or professional situations she is always available and assessable (Ramalho et al., 2010).

Ms. Martinez believed that mentoring programs implemented at her school serve as an incentive for recruiting teachers and retaining them (Ramalho et al., 2010). Ms. Martinez explains that she does not allow her staff to use the low socioeconomic status of his or her students as a disclaimer for failure. She professes that all children can learn and become successful positive citizens of America (Ramalho et al., 2010). Principal Martinez suggests that an avenue to facilitate trust among students, staff, parents and the community is to open the school for events such as festivals and dances (Ramalho et al., 2010). One of the principals in the study also expects the

seasoned teachers to help mentor novice teachers and model the ideology of teaching excellence (Ramalho et al., 2010). The principals in this study are meeting state and federal annual yearly progress (AYP) with an uncompromising commitment to building school cultures that are progressive, while one half of the student population is considered "at risk" (Ramalho et al., 2010). Also, the teachers in the study were motivated to provide instruction that placed students in a position to excel academically (Ramalho et al., 2010).

The principals in this study stressed that the expectation for all students is to score better than proficient (Ramalho et al., 2010). The role of the principal is motivator of all things academic and cultural. A principal must have the ability to convey and model high expectations for student achievement and cultural goals. Ms. Martinez's leadership style was considered, "hands on", and personal with the students, staff and parents. This hands on approach led to trust and exuberance in her school. The study concluded by inferring that the principals who participated sincerely care about his or her students and staff.

Leadership Styles and Teacher Morale

In many schools in America the authoritarian model for leadership is used to govern learning institutions (Nystrand, 2001). The Authoritarian model is centered on specific boundaries in regards to communication, job duties, and leadership (Nystrand, 2001). Research has shown that the authoritarian model of leadership is not conducive to the academic or social growth of a school. In contrast the Democratic model emphasizes shared decision making, collaborative teamwork, and supportive administrators (Nystrand, 2001).

Nystrand (2001) suggests the Authoritarian leadership models single concern is the completion of the task at hand and is contrary to positive change. Nystrand (2001) contrarily states that democratic principal leadership places an emphasis on balance between accomplishing the task and the morale of staff members based on decisions made by a principal. Nystrand (2001) also contends that through the democratic leadership style students and community must have a role in decision making for the school. According to Nystrand (2001) an effective principal not only sets goals and expectations high for his or her schools, they also show genuine concern and compassion for his or her students and staff.

It is suggested that for a principal to become high performing the balance between task and human relations must equal each other in importance (Nystrand, 2001). He further explains that the obstacles to this happening are that all principals do not possess the skill set to effectively facilitate expectations and human relations through differing behaviors depending on the academic situation. Nystrand (2001) cites that many staff members do not want to be included in all the decisions that may affect them. It is suggested that high performing principals in successful schools have the autonomy to hire and fire, provide clear and concise school structure and build healthy relationships between staff members that are trusting and professional (Nystrand, 2001). Maulding, Ownsend, Leonard, Sparkman, Styron, and Styron(2010) suggest that although the empirical data of their study indicated no statistical correlation between emotional intelligence and school performance levels the authors contend that emotional intelligence is imperative to positive leadership strategies. The progressive strategies in conjunction with the appropriate emotional

intelligence serve as a catalyst for change that stakeholders of a school community embrace the vision of the principal (Maulding et al., 2010).

Fiedler (2006) states that principals must objectively know what his or her leadership strengths and deficiencies are. Therefore, principals must choose schools that fit his or her leadership traits from a professional and personal standpoint to cultivate a progressive school culture. Vroom, Jago, and Arthur (2007) contend that the contingency theory of leadership is applicable to the circumstances and conditions of a school. The contingency theory suggests that decision making can be shared by the principal and his or her staff (Nystrand, 2001). Delegation of duties and responsibilities are also a strategies that are suggested in contingency leadership plans in which the principal shares the day to day operations of a school (Nystrand, 2001).

Vroom et al. (2007) suggests that the contingency leadership strategy is the most effective style due to the principal adjusting and adapting decision making based on the circumstances surrounding the opportunity. There are six strategies principals must use to implement and execute the maximum goals and student achievement in accordance with the Contingency Leadership Strategies: rewarding staff members for goals attained, facilitating and fostering student achievement, active involvement in instructional supervision, clear expectations for staff members, reduction of academic obstacles and performance based incentives for teachers meeting and exceeding academic goals (Vroom et al., 2007).

By using these behaviors a principal can maintain credibility as a motivator for teachers who have reached identified goals within the school. The principal can also give high performing teachers his or her choice of classrooms or planning periods. An effective principal must also provide support and direction to a teacher who is struggling with a difficult situation. The effective principal is always willing to clarify school goals and objectives for staff members which effectively facilitates improved student learning (Nystrand, 2001). High performing principals reduce academic obstacles, acquire transportation for field trips, mediate unrealistic parent requests, and support teacher proposals by attaining central office approval for teacher requested proposals that will positively impact the school (Nystrand, 2001).

Research suggests that staff members of a school require social acceptance and institutional affiliations that provide occupational gratification. Teachers also seek positive reinforcement from his or her endeavors as seen through their instruction and student outcomes. Teachers and staff members have a desire for rewards that validate their accomplishments in and outside of the classroom. Each staff member in a school must have a belief that as an individual they have the ability to fulfill goals that are set by the principal (Nystrand, 2001). The educational environment is extremely important to teachers and staff members and the pertinent variables that must be present are a hierarchy of authority, clear academic expectations, and designated curriculum related teacher focus groups (Nystrand, 2001). Nystrand (2001) reminds us that principals must become cognizant of his or her own personal and professional traits as well as behaviors as they relate to their leadership styles that will shape and mold the culture of the school in a positive and progressive manner.

Principals must also become mindful of what his or her teachers and staff members perceive of the direction that the school culture is moving in. Self-assessment is paramount to the success of any principal. This self-assessment must happen frequently and consistently to ensure

appropriate quality leadership strategies and good decisions are made to improve student learning (Nystrand, 2001). Research suggests that effective principal leadership enhances a progressive school culture which subsequently produces high performing schools (Kelley, Thorenton, & Daugherty, 2005).

Kelley et al. (2005) suggests that the leadership of a principal is the most important factor in student achievement. They further assert that principals have to process information, implement school procedures, and format this information to fit his or her school growth. It is suggested that high performing principals have the skill set to prepare for the future as well as have plans in place to empower teachers and staff to bring the school's vision to fruition (Kelley et al., 2005). Styron (2009) cited that universities must develop innovative strategies to train our current and aspiring principals in the art of academically and socially reaching all student scholars. He further asserts that many principals are not well rounded leaders who have the ability to improve student achievement for student scholars of all demographics.

Schools that are micromanaged begin to lose his or her sense of purpose as well as their progressive culture. On the contrary charismatic principals with inadequate managerial skill sets will raise academic standards momentarily but will eventually crash and burn (Bolman & Deal, 2008). It is suggested that principals cannot be one hit wonders nor have moments of brilliance. School improvement must be consistent and continual (Kelley et al., 2005). Kelley et al. (2005) suggest that the components which are essential to student achievement consist of; communication, educational hierarchy, a culture of high expectations, and effective principals. Employee frustration can be minimized by a high performing principal who can facilitate change appropriately (Blake & Mouton, 1985). It is suggested that to improve the effectiveness of teaching and learning the principal's leadership style can facilitate this improvement or hinder the performance of teachers and students (Hoy et al., 2006). Variables that compliment a principal's leadership are; maturity of followers, appropriate leadership style, staff expectations, and school goals (Hersey & Blanchard, 2007).

METHODOLOGY

Introduction

This study identified professional and personal strategies and attributes of principals who led National Blue Ribbon schools. It is intended that those personal and professional strategies identified in the study as being present among national blue ribbon principals would serve as a blueprint for new administrators to use as a tool for developing their own leadership strategies. The research methodology used in this study was non-experimental, quantitative research utilizing a survey design to identify the professional and personal strategies and attributes principals at National Blue Ribbon schools possess that lead to a progressive school culture.

Research Design

The sample for this study consisted of teachers and administrators from National Blue Ribbon Schools in a southern state. Approximately five hundred teachers/counselors and twenty

principals/assistant principals participated in the study. A non-random sampling of Mississippi Gulf Coast Blue Ribbon Schools participated in the study. These blue ribbon schools represented a broad socioeconomic demographic. The Leadership Practices Inventory (LPI) self/observer thirty item questionnaire was created by James M. Kouzes and Bary Z. Posner. The LPI was administered to teachers and administrators of the eleven blue ribbon schools. Additionally, he Purdue Teacher Opinionaire was administered to the teachers of these designated blue ribbon schools. Each of the questionnaires asked participants for demographic information as well as teachers' and principals' perceptions of the school culture as well as the personal and professional strategies of the principals.

ANALYSIS OF THE DATA

The researcher sought to determine whether a correlation existed between the independent variables teacher rapport with the principal, rapport among teachers, instructional issues and the dependent variables a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. The purpose of the study was to identify the specific professional and personal strategies exhibited by successful principals who lead schools that have been identified as National Blue Ribbon Schools. Using the Leadership Practices Inventor (LPI) and the Purdue Teacher Opinionaire (PTO) the study sought to examine whether a correlation exists between a principal's behavioral leadership and teacher morale.

A multiple regression was run to predict the identifying qualities of the selected variables. The alpha level was set at .05 for the purposes of this study.

Research Questions

1. Do principals at national blue ribbon schools employ specific personal and professional leadership strategies that lead to an improved school culture?
2. Are principals at national blue ribbon schools supportive of their teachers and staff?
3. Is teacher and staff morale high in national blue ribbon schools?
4. Is the academic culture at national blue ribbon schools progressive?

HYPOTHESES

H1 There is a correlation between teacher rapport with the principal and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart.

H2 There is a correlation between rapport among teachers and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart.

H3 There is a correlation between instructional issues and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart.

Description of Study Participants

Respondents were as follows; elementary, middle and high school teachers, counselors and staff members of select national blue ribbon schools in a southern state. Eight of the eleven principals presiding over the National Blue Ribbon certified schools were asked to participate in the study. The assistant principals who were present during the year of blue ribbon certification were also surveyed. Teachers, counselors, and staff members of the schools identified were also asked to participate in the study. Of the eight principals, seven , 87.50%, agreed to participate in the study by returning their questionnaires. Of the seven assistant principals, five, 71.40%, agreed to participate by returning their questionnaires. Two hundred and sixty-three teachers, counselors and staff members agreed to participate in the study by returning their questionnaires. For the purpose of this study, teachers, counselors, and staff members who were employed during the time that blue ribbon status was awarded were invited to participate in the study.

The blue ribbon principal respondents were comprised of 57.20% females and 42.80% males. The blue ribbon assistant principal respondents were comprised of 60.00% males and 40.00% females. Of those surveyed, 66.7% of the administrators had 15 years or more in the teaching profession. Thirty-three percent of the administrators who participated in the study had five to ten years of experience. The percentage of administrators who responded to the survey over the age of 50 were 58.3%, 33.3% were between 41-50 years of age, and 8.3% were between 31-40 years of age. The racial breakdown of the administrators who responded were 91.7% white and 8.3% black.

Tests of Hypotheses

To test the results of hypotheses one, two, and three a Pearson Correlation was used to determine whether a relationship existed between the variables. A multiple regression was also used to test hypothesis one, two, and three to determine whether predictive qualities existed for the selected variables. The results of the study met the p=.05 level of significance to qualify the statistical results.

Teacher Morale and Principal Leadership Traits

A correlation existed between teacher rapport with the principal and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. Hypothesis one was measured by a Pearson correlation illustrating a strong linear positive relationship between the subscale (teacher rapport with principal) of the Purdue Teacher Opinionaire and the five subscales of the Leadership Practices Inventory (Observer) principal traits (see Table 1). A Pearson correlation was also used to measure Hypothesis two which revealed a moderate positive association between the subscale (rapport among teachers) of the PTO and the five subscales of the LPI (Observer) (see Table 1).

Hypothesis three as tested by a Pearson correlation yielded a moderate positive association between the subscale (instructional issues) of the PTO and the five subscales of the LPI (Observer) (see Table 1). The two subscales of the LPI that were most significant as revealed by the multiple

regression were; enable others to act, and encouraging the heart. The multiple regression was significant at *F(5,257)=237.164, p<.001.* An analysis of the data led to a failure to reject the null hypothesis (see table 2). The respondent's strongly agree that the principal behaviors which were the best predictors are; enable others to act, and encouraging the heart.

Enabling others to act and encouraging the heart, as reported by the respondents, have a significant correlation with teacher rapport with the principal.

Table 1
Pearson Correlation

	Teacher Rapport with Principal	Rapport Among Teachers	Instructional Issues
Model the Way	.832	.389	.522
Inspire a Shared Vision	.795	.365	.472
Challenge the Process	.784	.368	.498
Enable Others to Act	.898	.375	.521
Encouraging the Heart	.864	.392	.485

All correlations are p<.001

It was also determined that a correlation existed between rapport among teachers and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart. A multiple regression was used to measure Hypothesis two; which determined that there was a significant statistical relationship between rapport among teachers as measured by the PTO and the five subscales of the LPI (Observer) that measured principal behaviors. The combination of the five subscales in conjunction of the LPI was significant as revealed by multiple regression. The multiple regression was significant at *F(5,257)=10.102, p<.001.* An analysis of the data led to a failure to reject the null hypothesis (see table 3). Based upon the responses of the participants a combination of the behaviors model the way, inspire a shared vision, challenge the process, enable others to act, and encouraging the heart revealed a significant correlation with rapport among teachers. Simply put, principals who displayed these behaviors were more likely to have a strong rapport among their teachers.

Table 2
Teacher Rapport with Principal (Multiple Regression)

	B	Beta	t	Sig
(Constant)	.688		6.250	.001
Model the Way	.044	.100	.979	.329
Inspire a Shared Vision	-.031	-.079	-.941	.347
Challenge the Process	-.011	-.029	-.356	.722
Enable Others to Act	.219	.633	8.271	.001
Encouraging the Heart	.095	.297	4.599	.001

Table 3
Rapport Among Teachers (Multiple Regression)

	B	Beta	t	Sig
(Constant)	2.563		16.158	.001
Model the Way	.077	.264	1.200	.281
Inspire a Shared Vision	-.022	-.085	-.467	.641
Challenge the Process	.006	.023	.129	.898
Enable Others to Act	-.008	-.036	-.216	.829
Encouraging the Heart	.053	.249	1.781	.076

A correlation also existed between instructional issues and a principal modeling the way, inspiring a shared vision, challenging the process, enabling others to act and encouraging the heart. A multiple regression was used to measure Hypothesis three; which determined that there was a significant statistical relationship between instructional issues as measured by the PTO and the five sub-scales of the LPI (Observer) that measured principal behaviors. The combination of the five sub-scales in conjunction of the LPI was significant as revealed by the multiple regression. The multiple regression was significant at $F(5,257)=21.169$, $p<.001$. An analysis of the data led to a failure to reject the null hypothesis (see Table 4). Participants agreed that a combination of the principal behaviors; model the way, inspire a shared vision, challenge the process, enable others to act, and encouraging the heart were present in schools where there was an emphasis placed on instructional issues.

Table 4
Instructional Issues

	B	Beta	t	Sig
(Constant)	1.887		9.838	.000
Model the Way	.136	.356	1.754	.081
Inspire a Shared Vision	-.090	-.262	-1.556	.121
Challenge the Process	.049	.144	.887	.376
Enable Others to Act	.080	.267	1.746	.082
Encouraging the Heart	.011	.039	.303	.762

CONCLUSIONS

Data were collected from respondents after administering the questionnaires. These data were analyzed and the results reflected how teachers perceive their principal's leadership traits and behaviors as well as how these behaviors impact teacher morale. The results of the study were consistent with the current literature in terms of principal leadership, teacher morale, and school culture. The morale of teachers impacts the level of instruction delivered to students.

However, the absence of a high level of instruction results in adverse student outcomes. In this study, it became evident that the academic and social connection between principal and teacher played a huge role in the success of these national blue ribbon schools. In addition to the principal holding high expectations for teachers, these national blue ribbon principals tended to possess characteristics such as; tact, approachability, caring, sensitive to the needs of others, personal and professional knowledge of teachers and staff members, respect for subordinates, the ability to listen, the ability to learn from others and a willingness to seek out new and innovative teaching and learning techniques. Although the list of behaviors and traits can be very extensive, principals must find ways to motivate teachers in a positive manner thereby positively impacting student achievement. Research supports the notion that the classroom teacher is the most important factor in the success of students. This is followed very closely by the impact of the school leader.

DISCUSSION

A successful principal understands that teachers who are responsible for the end result as well as the tasks associated with it are more likely to experience success. Conversely, if teachers are not enthusiastic about his or her teaching assignment and their morale is low they are less likely to yield positive results (Martin & Jenkins, 2008). According to Fiedler (2006) the leadership style of a principal is dictated by three circumstances; the relationship shared between the principal and his or her teachers, academic goals of the school, and the autonomy of the principal to praise or replace staff members. The principal must be the catalyst for cultural change through his or her actions, directly or indirectly (Leech, 2008). It is imperative that a principal have a staff that believes in his or her vision thereby creating a culture of positive and progressive learning (Lezotte, 2011).

The study points to the development of a strong positive rapport between the principal and the his or her faculty and staff as being significant to improving student learning. The data also suggest that principals should seek to build a better rapport with teachers and staff members by developing and implementing the behaviors and traits that have been identified as being present among successful principals. These behaviors and traits include, but are not limited to; developing cooperative relationships among teachers, actively listening to teachers, treating teachers and staff members with respect and dignity, supporting progressive decisions made by teachers, and growing staff members through professional development. Additionally, current or aspiring administrators who are seeking an enhanced teacher / principal rapport may consider developing the following administrative behaviors and traits as indicated by the study; praising teachers and staff members for a job well done, showing confidence in the ability of teachers and staff, rewarding teachers for creative contributions, publicly recognizing teachers who personify commitment, celebrating school accomplishments, and showing support and appreciation for teachers and staff.

The results of the study also suggests that principals should invest time facilitating the growth of rapport among teachers. It is imperative that teachers work in a school culture that embraces collaborative teamwork as indicated by the respondents of the study. A principal who seeks to strengthen rapport among teachers as indicated by the respondents of the study should; reinforce common academic and social goals within teacher teams, have experienced teachers

mentor new and younger teachers, promote workplace cooperation, and initiate the sharing of teacher "best practices" among colleagues. This is critical to the development of a culture of academic growth and continuous student improvement.

Participants of the study also indicate that the principal behaviors are also correlated with instructional issues. The curriculum represents the foundation for the delivery of instruction. It has a significant impact on the academic success of a school. The results of the study suggest that how curriculum is determined and implemented in national blue ribbon schools had a significant impact on on teacher morale and student outcomes. The results also indicate that principals who seek to raise their standards and expectations of their schools curriculum implementation should; ensure a well-balanced curriculum, ensure differentiated instruction, ensure alignment between school goals and curriculum, and demand that the school's curriculum is preparing students to become enlightened global citizens.

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STUDENTS' PERCEPTION OF THE ACCOUNTING INTERNSHIP PROGRAM

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ABSTRACT

This study examines students' perception of the accounting internship course activities and experience, offered at the University of Guam. The accounting internship course is a three-credit course offered to students who are majoring in Bachelor of Business Administration in Accounting (BBAA). Based on the results of this study, the majority of students indicated that the employer evaluations were found to be "very effective". The reflection journals, the discussion forum, and the progress and final reports were "effective" activities that prepared the interns for their careers. The internship experience helped the students enhance their knowledge of auditing, accounting and reporting, management accounting, government accounting, preparing financial statements, and interpreting and evaluating financial statements. However, it is noted that the students' perception of the internship enhancing their knowledge in tax accounting is that they "neither agree nor disagree".

BACKGROUND

Students enrolled in the accounting internship course must complete 150 hours of work for their employers. This is in addition to the course activities, consisting of employers' evaluations, reflection journals, discussion forums, and progress and final reports. Students were surveyed after the completion of this course.

The accounting internship course is a three-credit course that gives students 150 hours of work experience. The course prepares students who are entering the accounting profession by providing the students with practical experience at an accounting firm, company, or organization; at the same time, the course provides the interns with an opportunity to secure future employment. This course is typically offered to students who are majoring in accounting during their last semester of the accounting major program. In addition, employers will pay the interns between $500 and $600 for a contract with 150 hours. In a few instances, the intern will work more than 150 hours, upon which the employer and the intern will negotiate the continuing agreement. It is also noted that there were a few instances in which the intern agreed to work for free.

Course Objectives

The following are the objectives for this course:

- To learn to work with professional accountants in a professional environment

- To apply previous accounting coursework to the day-to-day business needs and problems of the firm
- To expand students' contacts within the local accounting community
- To acquire valuable exposure and experience in an area that will enhance the students' future career potential
- To complete assignments that encourage in-depth reflection of the internship experience
- To communicate effectively in writing to a variety of audiences during the internship experience

LITERATURE REVIEW

Discussion Forums. The discussion forum is a place in which interns will share their internship experience with their peers online. Interns are required to provide information about their assigned duties and responsibilities, training, and supervision, as well as discuss the experiences they gained for each week. The purpose of this activity is for the interns to gain knowledge from their peers, especially if the interns are working at a different organization from those of their peers. An online discussion forum is a tool that students can use to interact with each other (Mason, 1998; Thomas, 2001; Riley, 2006; Ting, 2013). In addition, a forum promotes critical thinking (Gokhale, 1995) and social skills (Johnson, Johnson, & Holubec, 1993).

Reflection Journals. Students write two reflection journals; the first is completed at their midpoint (75 hours), and the second is completed after the student works for 150 hours. The reflection journals are tools for interns to reflect on their experiences and for them to provide suggestions to improve their performances in the workplace, as well as make suggestions for improvements in the accounting program. Reflection journals assess students' achievements of learning (Jarvis, 2001; Wong, Kember, Chung, & Yan, 1995).

Employer Evaluations. The employer evaluation form is given to the intern's supervisor, after the intern works for 75 hours (midpoint) and 150 hours. The form will evaluate the intern's comprehension and communication, attitude/work habits, and overall performance. The evaluation form also includes questions for the supervisor to identify the intern's strengths and to offer a recommendation for improvements that the intern can make in the future.

Written Reports. Each intern prepares a progress report after completing 75 hours and a final report after completing 150 hours. A rubric is provided with a set of criteria, used to evaluate the report. The contents of these reports include the background of the company, agency, or organization, as well as the leadership activities, growth in employability, and a summary of the students' internship experience. The final report includes all of the activities that the student performed during the course, which is also used as his or her final internship portfolio.

Prior to the implementation of the course activities that were previously mentioned, the students were required to perform 150 hours of service at their place of employment; after

completing these hours, they submitted an employer evaluation form and final report. The instructor for this course found it difficult to monitor their progress during the program. The interns were unable to learn how they were performing, until after they completed the internship hours. In addition, the instructor was not aware of the tasks the interns were performing, even though it is assumed that they were performing the duties of an accountant position. Therefore, the instructor implemented these activities to ensure that the students were performing duties applicable to the program. Doing so enabled the interns to receive feedback from their employers and instructor at the midpoint and after completing the program. By implementing these course activities, there were improvements in the communication between the interns and instructor; the interns and the employers; and the instructor and the employers.

RESEARCH METHODOLOGY

This study examines the interns' perception of the course activities and internship experience. The students' opinions of their internship experiences, as illustrated in Table 2, originated from a study conducted by Muhamad (2009). In preparation for this study, the author submitted a request to the corresponding author for permission to reuse the instrument and was granted approval. The University of Guam's Committee on Human Research Subjects approved this study (Nabobo-Baba, 2013).

The survey instrument was posted by using online survey software to gather the data. The link to the survey instrument was emailed to the interns and remained available for 10 days. The population for this study is 53. The total response received was 38. However, 2 responses were eliminated, due to partial responses. Therefore, the number of responses used in this study was 36 (68%) of the population. According to the Instructional Assessment Resources (2011), seven to ten days is a sufficient amount of time to allow a survey to remain available, and the acceptable response rate is an average of 30% for online surveys.

RESULTS AND DISCUSSION

The participants from this study were students who took the internship course between the fall intersession 2012 and fall 2013 semesters, which includes a summer semester, for a total of seven (7) semesters. It is noted that students who took this course prior to the fall intersession 2012, did not participate in the discussion forums, reflection journals, and progress report activities. The instructor for this course began these activities in the fall 2012 intersession semester.

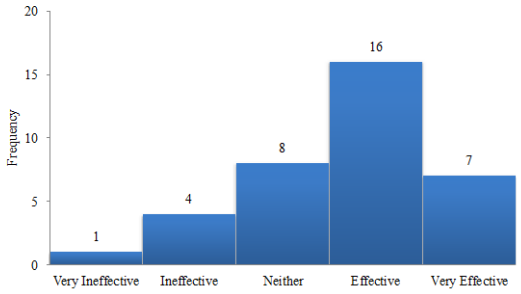
Students' Perception on the Course Activities

The mode statistics were used to analyze the data (See Figures 1 through 5). Based on the results, the students found the employer evaluations to be "very effective" because they felt that the evaluations helped prepare them for their careers. The other activities, discussion forums, reflection journals, and progress and final reports were found to be "effective".

Table 1
Students' Perception on the Course Activities

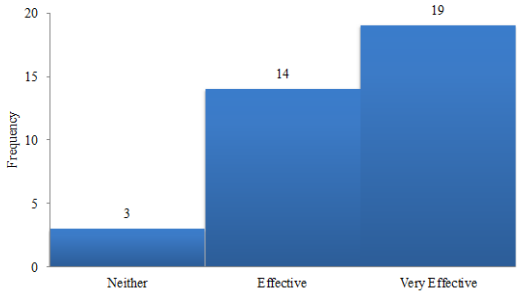
No.	Question	Min Value	Max Value	Mean	Median	Mode	Variance	Standard Deviation	Total Responses
1	Discussion forums	1	5	3.67	4	4	1.03	1.01	36
2	Employer evaluations	3	5	4.44	5	5	0.43	0.65	36
3	Reflection journals	1	5	3.78	4	4	1.15	1.07	36
4	Progress report	2	5	4.14	4	4	0.58	0.76	36
5	Final report	1	5	4.06	4	4	0.85	0.92	36

Figure 1
Discussion Forums



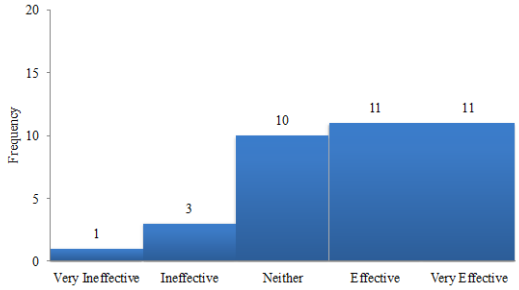
The frequency from this activity showed that discussion forums were "effective" in the internship course.

Figure 2
Employer Evaluations



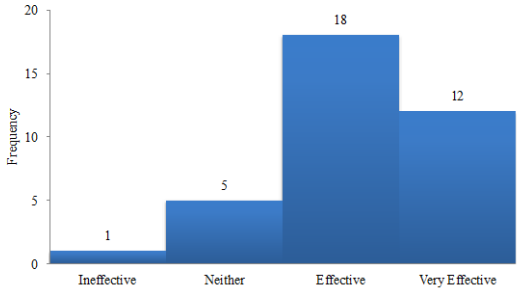
The frequency from this activity showed that employer evaluations were "very effective" in the internship course.

Figure 3
Reflection Journals



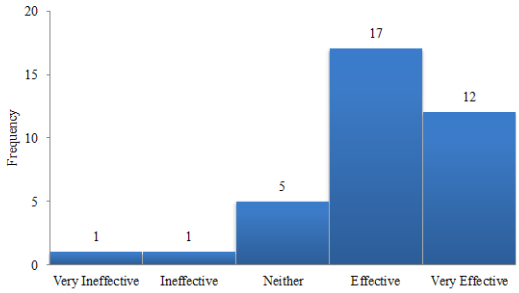
The frequency from this activity showed that reflection journals were “effective” in the internship course.

Figure 4
Progress Report



The frequency from this activity showed that the progress report was “effective” in the internship course.

Figure 5
Final Report



The frequency from this activity showed that the final report was “effective” in the internship course.

Students' Perception on their Internship Experience

The mode statistics were used to analyze the data. Based on the mode (frequency) from Table 2, the internship experience helped the students by preparing them to be better employees in the future; the internship provided them with relevant knowledge and practical experience that helped them to relate the theories about the work environment that the students learned in the classroom.

Students enhanced their knowledge of auditing, accounting and reporting, management accounting, government accounting, preparing financial statements, and interpreting and evaluating financial statements. However, it is noted in terms of the survey question about whether or not the internship experience enhanced the students' knowledge of tax accounting, the students neither "agreed nor disagreed".

In addition, the internship experience helped the students develop their soft skills, specifically problem-solving skills, communication skills, and interpersonal skills. The internship experience helped improve the students' personal confidence and self-esteem; gave the students exposure to the latest technology; created the opportunity for the students to network with people in the industry and business arena; improved the students' chances of getting jobs after graduation; and provided the students with the necessary information and experience to choose the right career paths after graduation.

The total responses may not equal the total population because some of the criteria listed in the survey instrument were not applicable to the intern.

Table 2
Students' Perception on their Internship Experience

No.	The internship…	Min Value	Max Value	Mean	Median	Mode	Variance	Standard Deviation	Total Responses
1	prepared me to be a better employee in the future.	3	5	4.03	4	4	0.37	0.61	36
2	provided me with the relevant knowledge and practical experience to assist me in adapting myself to my working environment.	3	5	4.08	4	4	0.31	0.55	36
3	helped me to relate the theories learned in the classroom to the work environment.	3	5	4.03	4	4	0.26	0.51	36
4	helped me to enhance knowledge in auditing.	2	5	3.91	4	4	0.71	0.84	33
5	helped me to enhance knowledge in financial accounting and reporting.	2	5	3.91	4	4	0.37	0.61	35
6	helped me to enhance knowledge in management accounting.	2	5	3.64	4	4	0.55	0.74	33
7	helped me to enhance knowledge in public sector (government) accounting.	2	5	3.79	4	4	0.77	0.88	34
8	helped me to enhance knowledge in tax accounting.	1	5	3.41	3	3	0.96	0.98	32
9	helped me to enhance my ability to prepare financial statements.	2	5	3.63	4	4	0.56	0.75	32
10	helped me to have better understanding in interpreting and evaluating financial statements.	3	5	3.76	4	4	0.38	0.61	33
11	helped me to develop my problem solving skill.	3	5	4.11	4	4	0.27	0.52	36

Table 2
Students' Perception on their Internship Experience

No.	The internship…	Min Value	Max Value	Mean	Median	Mode	Variance	Standard Deviation	Total Responses
12	helped me to develop my communication skill.	3	5	4.25	4	4	0.31	0.55	36
13	helped me to develop my interpersonal skill.	3	5	4.11	4	4	0.39	0.62	36
14	helped me to improve my personal confidence and self-esteem.	3	5	4	4	4	0.4	0.63	36
15	had given me the exposure to the latest technology adopted in the work place.	1	5	4.03	4	4	0.66	0.81	36
16	had given me the opportunity to build up rapport and networking with people in the industry and business arena.	2	5	4.11	4	4	0.44	0.67	36
17	had provided me with the necessary job experience that can improve my chances to get a good job upon graduation.	2	5	4	4	4	0.63	0.79	36
18	had provided me with the necessary information and experiences to choose the right career path upon graduation.	3	5	4.14	4	4	0.41	0.64	36

CONCLUSION

This study examined students' perception of the course activities and internship experiences at the University of Guam. The results of this study showed that the students perceived an employer's evaluation to be very effective, while the students believed the reflection journals, discussion forums, and written reports were effective.

Reflection journals assess the students' achievements of learning. Jarvis (2001) argued that reflective journals could be time-consuming. However, this can lead to personal and professional enrichment and employment, in which she recommended the use of reflective journals in higher and continuing education.

A discussion forum is a place in which students interact with each other, and a forum promotes critical thinking and social skills. In a study conducted by Akhras (2012), the discussion forum improved participation between students and faculty, and it improved student performance. Furthermore, written reports help improve writing skills and critical thinking.

The internship experience helped the students enhance their knowledge in the subject areas of financial and managerial accounting, auditing, government accounting, and interpreting and evaluating financial statements. The students neither "agreed nor disagreed" that the internship helped them increase their knowledge in tax accounting. The internship experience helped to develop the students' soft skills in the areas of their problem-solving skills, communication skills and interpersonal skills. Soft skills are important in one's career and will set an individual apart from those who lacked these skills (Karan, 2012; Dixon, Belnap and Lee, 2010).

The internship experience helped improve the students' personal confidence and self-esteem; provided the students with exposure to the latest technology; gave the students the opportunity to network with people in the industry and business arena; improved the students'

chances of getting a good job after graduation; and give the students the necessary information and experience to choose the right career path after graduation.

FUTURE RESEARCH

This research focused on the students' perception of the internship program, based on the course activities and the internship experience. Additional research for consideration is the investigation of the employers' perception—focusing on soft skills or nontechnical skills that the employers seek from accounting majors. Is there a relationship between technical and nontechnical skills? Another topic for further research is related to determining the successes and challenges of accounting graduates, in terms of their current careers, and/or to ask, "Where are they now?"

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THE EFFECT OF MACHIAVELLIANISM ON BUSINESS STUDENTS' PERCEPTION OF CHEATING

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ABSTRACT

College cheating has been increasing in the last decades and has received considerable attention in education research. The current study investigates if a negative personality characteristic such as Machiavellianism was related to business students' perception of cheating. A Total of 474 business students in two universities were surveyed to examine this relationship. Results showed that high Machiavellian business students viewed various questionable cheating actions as less unethical compared to other students. These results point to the disturbing result that more negative personality characteristics can have an impact on cheating perception, and possibly cheating behavior. Instructors can benefit from these results when supervising exams and grading other assignments.

INTRODUCTION

Academic dishonesty has received considerable attention in the education literature. Research investigated frequency of cheating, as well as situational, demographic and psychological determinants of cheating. Research in cheating has become multidisciplinary because there are some several psychological aspects to cheating. Business students have received additional attention since research showed that classroom cheating was strongly related to workplace cheating (Sims, 1993).

The current study examines demographic and psychological determinants of business students' cheating perception. Specifically, Machiavellianism, a personality disorder characterized by manipulation of others for personal gain, is examined. Demographic factors such as age, gender, class grade and major are also investigated.

The paper is organized as follows: A review of the literature regarding business students and cheating as well as determinants of cheating is presented. This is followed by the study's hypotheses and methodology. Finally, results and conclusions are presented followed by suggestions for future research.

LITERATURE REVIEW

College Students and Cheating

College cheating has received attention in the education and psychology literature. This attention is motivated by the prevalence of such behavior. Generally, research found that cheating in College is less common than cheating in high schools (Lau et al. 2011). However, these findings are not comforting considering that Whitley (1998) found that about 70% of college students in all disciplines admitted to cheating at least once during their college years. More recently, Yardley et al. (2009) surveyed alumni of several universities and found that 82% of respondents cheated at least once during their undergraduate years. Over the years, cheating has evolved from simply

copying someone's homework or buying a term paper to more sophisticated schemes involving texting and creative plagiarism (Liebler 2012).

College cheating has many negative consequences. McCabe et al. (2006) noted that not only the cheater suffers negative consequences such as punishment and loss of reputation but noncheaters can also suffer as a result of the cheater's behavior. For example, pervasive cheating in a university can result in stricter standards and less flexibility offered to all students as well as greater faculty distrust of all students. In addition, the overall reputation of the university can also suffer (McCabe et al. 2006). More serious consequences can occur if college cheating was a predictor of workplace or personal cheating. Although many undergraduate students disagree with this theory and argue that college cheating is only temporary (Reall et al. 1998), research shows some truth to this relationship. Students who cheated in college were more likely to shoplift (Beck and Ajzen, 1991), cheat on their income taxes (Fass, 1990) and engage in unethical workplace behavior (Nonis and Swift 2001).

Determinants of College Cheating

Three types of determinants of college cheating have been advocated: Situational, demographical and psychological. In general, increased class sizes, decreased surveillance, and close seating arrangements have been important factors in the frequency of student cheating (Whitley, 1998).

Demographic factors have also emerged as predictors of cheating. For example, younger students have been found to cheat more often compared to older students (Schuhmann et al. 2013). Hunt and Vitell (1986) attributed this relationship to older students' development of moral reasoning abilities. Several studies found that female students cheated less often than males (McCabe and Trevino 1997). Tibbetts (1999) reasoned that male students exhibited less self-control than female students regarding cheating, while female students tended to feel more shame if caught cheating. Several studies also found that students with lower GPA tended to cheat more often than higher performing students (Schuhmann et al. 2013). Research showed that business students tended to have the highest tolerance for cheating compared to English and Psychology students (Lau and Haug, 2011). These results were confirmed by Simha et al. (2012). These results should be a cause for concern to business instructors especially if college cheating was a predictor of workplace cheating (Nonis and Swift 2001). Little research has investigated whether students majoring in different disciplines within Colleges of Business had different perception of cheating. Based on previous research, the current study tests the following null hypothesis:

H1: Business students' cheating perception is not affected by gender, age, class grade and major.

Psychological factors have been advocated as determinants of college students' cheating. Students who reported a belief that cheating was never acceptable appeared less likely to cheat in any circumstance (Schumann et al. 2013). Davis and Ludvigson (1995) attributed cheating behavior to external stress, fear of failure, and peer or family pressure. Iyer and Eastman (2006) argued that students with lower self-esteem were more likely to commit dishonest acts. Rettinger and Jordan (2005) found that more religious students tended to cheat less often compared to other students. Bloodgood et al. (2010) found that taking a business ethics course reduced the likelihood of cheating, especially for nonreligious students. Tang et al. (2008) found that the love of money was an important determinant of college cheating whereas students with higher love of money tended to cheat more often. The current study introduces the pshychological variables of

Machiavellianism and Opportunism as potential determinants of college students' cheating perception.

Machiavellianism

Christie and Geis (1970) developed the Machiavellianism personality trait based on studying political and religious figures who manipulated their subordinates for their own self-interest. The authors identified the willingness to use manipulative techniques and an endorsement of a cynical view of human nature as characteristics of Machiavellians. Such persons are inclined to be disagreeable (Elfenbein et al. 2008), uncooperative (Paal and Bereczkei 2007), emotionally manipulative (Austin et al. 2007) and exploitive in relationships (Mullins and Kopelman 1988).

Research has consistently found that Machiavellians exhibited lower ethical values. Al-Khatib et al. (2005) found that consumers in the Persian Gulf countries who scored high on Machiavellianism were more likely to view unethical practices as ethical. Tang et al. (2008) found that business students exhibiting higher love of money scored highest on Machiavellianism and were more likely to perceive unethical scenarios as ethical. Murphy (2012) discovered that Machiavellian accountants were more likely to misreport the financial statements compared to lower Machiavellians. Recently, Dalton and Radtke (2013) found that high Machiavellians were less likely to blow the whistle on ethical practices in their organizations. However, the authors found that a high ethical environment increased high Machiavellians' intention to blow the whistle. In a college environment, some research attempted to examine the relationship between Machiavellianism and cheating. However, the results were generally weak (Cizek 1999 and Williams et al. 2010). Bloodgood et al. (2010) found that Machiavellianism was positively related to perceiving that only two forms of cheating were acceptable. Quah et al. (2012) examined business students in Malaysia and found that Machiavellians had a positive attitude toward plagiarism. Based on these weak findings, the current study examines the following hypothesis:

H2: Business students who score high on Machiavellianism were more likely to perceive questionable cheating actions as ethical compared to low Machiavellianism scorers.

RESEARCH METHODOLOGY

Sample Selection

The sample for this study consisted of undergraduate business students in two universities on the West Coast (one large public AACSB-accredited and one medium-sized private university). Graduate students were not surveyed due to their small sample size. A survey containing the study measures was developed and given to the students during class time. The students were enrolled in a variety of undergraduate business classes. The anonymous survey took about 10-15 minutes to complete. Students were asked to record their first impression of a question and were allowed to withdraw at any time. The final useable sample consisted of 333 students in the large university and 141 in the medium-sized university for a total sample size of 474 students. Both samples were compared on each study measure. No statistically significant differences were found between both student samples.

Study Measures

Students' cheating perceptions were measured using the cases developed by Rawwas et al. (2007). In that study, they classified academic dishonesty actions into clearly unethical actions and questionable actions. The current study uses only the questionable actions (7 items). Examples include "receiving extra credit because the instructor likes you" and "brown-nosing your professors". This allows for differences in student opinions and is a common technique used in ethics studies. If students clearly perceived an action as unethical, they might be subject to social desirability bias and they might be quick to reject it as unethical. However, questionable practices allow for a variety of perceptions and are better suited to measure the interested relationships. Each student recorded his/her perception of each statement on a 7-point scale ranging from 1 (strongly ethical) to 7 (strongly unethical). Rawwas et al. (2007) found the reliability of this section of the survey to be .65. In the current study, it was measured at .71.

In order to measure Machiavellianism, the scale developed by Dahling et al. (2009) was used. It had excellent reliability of .84 and consisted of 16 statements. In the current study, reliability was measured at .81. The respondent recorded his/her agreement with each statement on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicated higher Machiavellianism. The scale yielded four factors: Amorality (the lack of ethics vision in different situations), Desire for control (the desire to manipulate others for a person's self-interest), Desire for status (the desire to show wealth and power), and Distrust of others (the constant suspicion of others' intent).

STUDY RESULTS

Table 1 presents the demographic characteristics of the student sample. There were slightly more males than females, and more nontraditional (older) students compared to younger students. Most of the students were accounting majors, followed by general business majors and management majors.

TABLE 1
DEMOGRAPHICS AND SUMMARY INFORMATION (N=474)

Panel A: Demographic Information

Gender	N
Male	250
Female	224

Age	N
25 years or <	339
➢ 25 years old	135

Class Grade	N
Sophomore	108
Junior	217
Senior	149

Major	N
Accounting	138
Management	77
Marketing	42
Economics	18
CIS	36
Finance	35
General Business	97
Nonbusiness major	31

Panel B: Academic dishonesty+

	Mean (SD)
Academic dishonesty	5.37 (1.38)

Panel C: Machiavellianism*

Dimension	Mean(SD)	Factor Loading
Amorality	2.43 (1.36)	.75
Desire for Control	4.15 (1.53)	.68
Desire for Status	5.07 (1.41)	.82
Distrust of Others	3.93 (1.28)	.80
Total Machiavellianism	3.79 (1.02)	.78

+ 1 (strongly ethical) 7 (strongly unethical)
Higher scores indicate higher unethical perception of the action
***1 (strongly disagree) 7(strongly agree)**
Higher scores indicate higher Machiavellianism

Overall, students had a mean academic dishonesty score of 5.37/7.00 indicating they felt the questionable actions were slightly to moderately unethical.

In order to test H1, ANOVA was performed using each demographic factor as the independent variable and perception of cheating as the dependent variable. No significant differences emerged regarding major and age. The significant demographic results are reported in Table 2.

TABLE 2
DEMOGRAPHIC DETERMINANTS OF CHEATING PERCEPTION

Gender	MEAN (SD)
Male	5.19 (1.43)***
Female	5.57 (1.25)***
Class Grade	MEAN (SD)
Sophomore	5.23 (1.51)*
Junior	5.30 (1.42)*
Senior	5.60 (1.21)*

*** p<.01 * p<.10
1 (strongly ethical) 7 (strongly unethical)
Higher scores indicate higher unethical perception of the action

Generally, female students viewed the questionable actions as significantly more unethical (mean 5.57) compared to males (5.19)(p<.01). In addition, senior students viewed them as most unethical (mean 5.60) followed by juniors (mean 5.30) and sophomores (mean 5.23)(p<.09). H1 was therefore partially rejected. Regarding Machiavellianism, students were neutral on their Machiavellian attitudes. They generally scored higher on desire for status and slightly high on desire for control of others. However, their amorality scores were low and their scores were average regarding distrust of others.

In order to test the relationship between cheating and Machiavellianism, correlation analysis was used and the results are reported in Table 3.

TABLE 3
CORRELATION BETWEEN CHEATING AND MACHIAVELLIANISM

	Cheating	Amorality	Control	Status	Distrust	Machiav.
Cheating		-.24***	-.08**	-.07**	-.07**	-.14***
Amorality			.35***	.28***	.41***	.70***
Control				.44***	.26***	.66***
Status					.25***	.60***
Distrust						.71***

***p<.01
**p<.05

The results indicate that cheating perception is significantly related to Machiavellianism. Students scoring high on Machiavellianism were more likely to view questionable actions as ethical. This was true for every dimension of Machiavellianism. Therefore H2 was supported.

CONCLUSIONS AND IMPLICATIONS

The current study found that students perceived questionable academic actions as unethical. However, variations regarding gender and class grade remain and should be given closer attention by business instructors. Although it is comforting to find that senior students viewed questionable actions as unethical, especially after ethics education throughout the curriculum at both universities, the gap between senior students and freshmen regarding ethical perception should be closed sooner rather than later. The gap between male and female students is more alarming and should be urgently addressed.

The current study also found a significant relationship between Machiavellianism and perception of academic dishonesty. Machiavellians were much more likely to tolerate questionable academic dishonesty actions compared to other students. These results show the importance of focusing on students' opportunistic behavior when teaching business ethics. The last decade has witnessed many business ethics scandals and ethics education has been offered as a tool to prevent such scandals in the future. However, instructors should take students' personality factors into consideration when designing a business ethics course in order to sensitize Machiavellians to ethical issues. Dalton and Radtke (2013) found that an ethics course helped Machiavellians blow the whistle on unethical behavior. Future classroom research should investigate whether an ethics course can achieve similar results regarding cheating.

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APPENDIX

SURVEY INSTRUMENT

Please record your agreement or disagreement with each of the following statements according to the following scale. <u>There are no right or wrong answers.</u> Do not spend too much time on any question and record your first impression. (adapted from Dahling et al. (2009))

Strongly Disagree	*Moderately Disagree*	*Slightly Disagree*	*Neutral*	*Slightly Agree*	*Moderately Agree*	*Strongly Agree*
1	*2*	*3*	*4*	*5*	*6*	*7*

_____ I believe that lying is necessary to maintain a competitive advantage over others

_____ The only good reason to talk to others is to get information that I can use to my benefit

_____ I am willing to be unethical if I believe it will help me succeed

_____ I am willing to sabotage the efforts of other people if they threaten my own goals

_____ I would cheat if there was a low chance of getting caught

_____ I like to give orders in interpersonal situations

_____ I enjoy having control over other people

_____ I enjoy being able to control the situation

_____ Status is a good sign of success in life

_____ Accumulating wealth is an important goal for me

_____ I want to be rich and powerful someday

_____ People are only motivated by personal gain

_____ I dislike committing to groups because I don't trust others

_____ Team members backstab each other all the time to get ahead

_____ If I show any weakness at work, other people will take advantage of it

_____ Other people are always planning ways to take advantage of the situation at my expense

Regardless of the previous statements, please indicate your ethical perception of each of the following actions performed by a student in your class (adapted from Rawwas et al. (2007))

Strongly Ethical	*Moderately Ethical*	*Slightly Ethical*	*Neutral*	*Slightly Unethical*	*Moderately Unethical*	*Strongly Unethical*
1	*2*	*3*	*4*	*5*	*6*	*7*

_____ Receiving extra credit because the instructor likes you

_____ Receiving favoritism as a result of being a student athlete or member of a campus organization

_____ Receiving a higher grade through the influence of a family or personal connection

_____ Being allowed to perform extra work, which is not assigned to all class members, to improve your grade

_____ Brown-nosing your professors

_____ Contributing little to group work and projects, yet still receiving the same credit and grade as the other members

_____ Having access to old exams in a particular course to which other students do not have access

Finally, please answer the following important demographic questions. Your anonymity is guaranteed.

GENDER: _____ Male _____ Female
AGE: _____ 25 years old or less _____ Older than 25 years

CLASS GRADE: _____ Sophomore
_____ Junior
_____ Senior

MAJOR: _____ Accounting
_____ Management
_____ Marketing
_____ Economics
_____ Computer Information Systems
_____ Finance
_____ General Business
_____ Nonbusiness major

DEVELOPING CRITICAL THINKING WITHIN A MASTER OF SCIENCE IN LEADERSHIP PROGRAM

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ABSTRACT

Critical thinking involves an important set of competencies, skills, and behaviors that can be systematically developed and cultivated. Critical thinking is fostered within the Master of Science in Leadership Program to help students achieve higher levels of thinking through the program and also to help them improve their leadership acumen. The paper describes critical thinking, provides background on the Paulian view of critical thinking used within the program, and presents the approach used to infuse critical thinking into the curriculum. The Master of Science in Leadership Program introduces critical thinking in the first required course and weaves critical thinking concepts and exercises throughout the entire program. Program administrators and course developers incorporated desired learning points into the curriculum through conceptual frameworks, active learning activities, targeted instructional techniques, and intellectual moves. Each of those components is part of a schema that ensures students engage concepts at the highest analytical levels within their individual contexts as leaders.

Topic Area: Leadership Education

Keywords: Critical thinking, leadership, online learning, distance education, instructional strategies

INTRODUCTION

Leaders reason through emergent situations. In environments of rapid change, application of old solutions do not always work with new problems. Complex, adaptive environments require leaders who think. The Master of Science in Leadership (MSL) program incorporates critical thinking at its core. Critical thinking is considered a foundational set of competencies, skills, and behaviors that can be systematically developed and cultivated.

While critical thinking is widely recognized as important and institutions are developing instructional tools to enhance critical thinking development, academics are still puzzled on how to teach critical thinking. Many students are not aware of their thought processes and do not approach reasoning in a disciplined or systematic way (Scott, 2014). To address the gaps in our students' thought processes, the MSL provides explicit critical thinking instruction throughout the program and uses a critical thinking assessment to assess understanding of basic critical thinking skills. From a programmatic perspective, administrators are interested in ensuring that students improve their critical thinking skills and that improvements persist over the duration of the program.

The importance of having students thinking at the highest levels served as the impetus to infuse critical thinking in the Leadership program at Embry-Riddle Aeronautical University-Worldwide (ERAU-WW). The MSL is a comprehensive leadership development program.

Critical thinking is introduced in the first required course and systematically developed through each subsequent course. In the MSL program, the readings, learning activities, assignments, discussions and tests that permeate each week's activities throughout the courses and program have critical thinking components. The students begin by learning critical thinking concepts and carry those concepts through each activity outlined in the program. To expose how we have done this, we define and discuss critical thinking, provide relevant background on our MSL program, describe our approach to critical thinking in our program and explain the activities we use to teach both leadership and critical thinking concepts.

CRITICAL THINKING

Critical thinking, with origins dating back to ancient Greece, emerged as a focal point of modern education. The modern movement of critical thinking in education gained momentum with the implementation of California Executive Order 338 in 1980 and the release of the U.S. Government report, *A Nation at Risk* in 1983. California Executive Order 338 mandated critical thinking instruction in the California State University system and *A Nation at Risk* recommended critical thinking be at the forefront of all educational levels. *A Nation at Risk* reported that most 17 year old students failed at complex, logical tasks and yet those skills were needed in the workplace. The report recommended that students needed to develop advanced cognitive skills and should continue improving those skills throughout their careers (Notgarnie, 2011). The California Executive Order 338 and the *Nation at Risk* catalyzed the interdisciplinary focus of critical thinking in education. In 1990, the American Philosophical Association (APA) commissioned a Delphi study composed of a panel of educators, philosophers and scientists.

This study produced a definition of critical thinking and listed attributes of critical thinkers (Falcione and Falcione, 1996). The APA report stressed three key points, including: (a) critical thinking is a holistic phenomenon that is not domain specific, (b) critical thinking should not be conflated with other models of thinking, and that (c) developing and applying critical thinking involves interaction with the context provided by domain knowledge (Sadler, 2010). As such, the work of critical thinking in an educational context became vitally important and research of critical thinking increased significantly.

Research has served as the foundation for critical thinking, particularly since the 1980s, as writers sought to clarify the definition of critical thinking. Raternick (2005) expressed that several critical thinking meanings exist within the discipline. Paul, Elder and Bartell (1997) argued that it is unwise to rely on one definition of critical thinking because of the wide application and the 2500 years of tradition. Glasser (1941) suggested critical thinking involved considering problems from one's experience, knowledge of the methods of inquiry and the skill to apply those methods. Robert Ennis (1987) defined critical thinking as "reasonable, reflective thinking that is focused on deciding what to believe or do" (p. xviii). Lipman (1991) described critical thinking as "skillful, responsible thinking that is conductive to good judgment because it is sensitive to context, relies on criteria and is self-correcting" (p. 116). Hare (1998) referred to critical thinking as a deliberate assessment of claims through defined standards of proof. Finally, Paul (1993) called it "thinking about your thinking, while you're thinking, in order to make your thinking better" (p. 91).

The Paulian approach to critical thinking, named after Richard Paul, serves as a foundational element of the MSL program at Embry-Riddle Aeronautical University-Worldwide. Paul is known for his impact on critical thinking in education. The Paulian approach deconstructs thinking into eight constituent parts (elements; see Figure 1), which can be assessed using criteria (standards) and held up against universal ideals (virtues). The approach can be used to reason through any idea within any context.

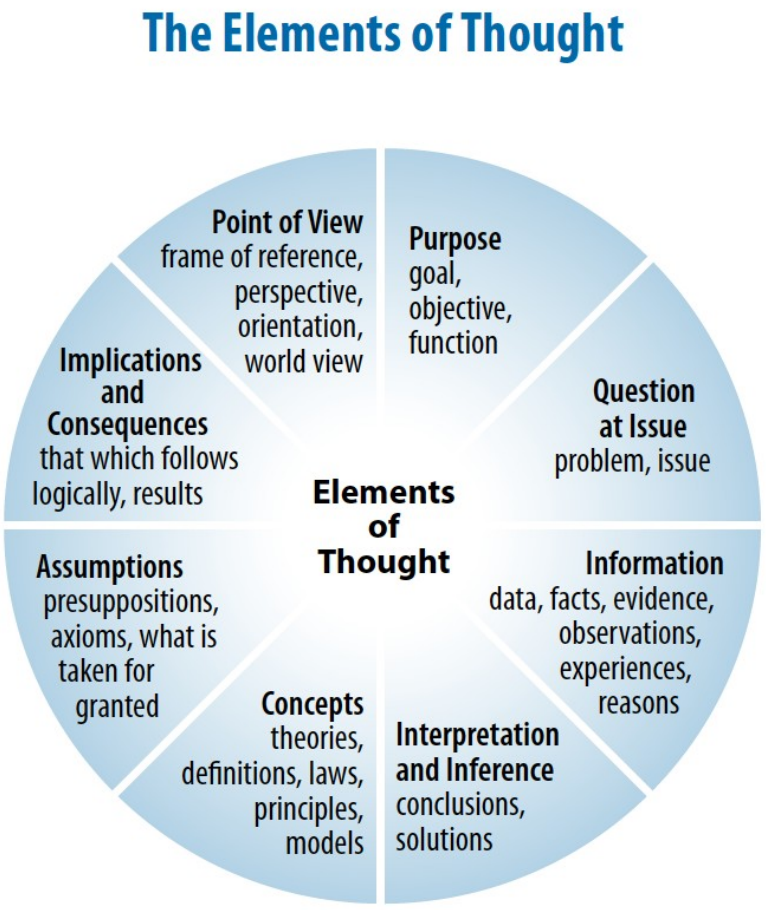

Figure 1. Elements of Thought. Reprinted with permission from The Thinker's Guide to Analytic Thinking: How to Take Thinking Apart and What to Look for When You Do (p. 5) by L. Elder and R. Paul, 2012, Tomales, CA: Critical Thinking Foundation Press. Copyright 2012

Paul's elements of thought are based on eight components that allow one to define thinking among a set of interrelated intellectual processes (Elder & Paul, 2012). It is not important to reason through each element in a certain order; however, because all thinking contains all of the elements, it is important to cover each element individually to serve as a framework to think about complex issues (Broadbear et al, 2000). A second concept of Paul's approach to critical thinking is

intellectual standards. These standards are used as a self-assessment tool to make thinking clear, accurate, broad, and fair (Elder & Paul, 2012). In other words, intellectual standards help keep thinking on track. These intellectual standards apply to academic thinking and have implications for everyday life. (Broadbear & Keyser, 2000; Elder & Paul, 2012).

Finally, the Paulian approach to critical thinking focuses on intellectual traits necessary for right action and thinking. According to the Foundation for Critical Thinking (1996) several valuable intellectual traits (virtues) are important to the critical thinker. As one practices critical thought, these traits become inherent in the critical thinker (Broadbear & Keyser, 2000). It is with the previous frame of reference that a discussion of the background of the MSL program is important.

MASTER OF SCIENCE IN LEADERSHIP - BACKGROUND

Embry-Riddle Aeronautical University's mission is to teach the science, practice and business of aviation and aerospace (University, 2013). Founded in 1925, just 22 years after the Wright brothers' first flight, the non-profit, private university has grown to offer academic programs in two traditional campuses located in Daytona Beach, Florida and Prescott, Arizona. The university also provides instruction around the world through over 150 satellite campuses and online. Though recognized as a leader in aviation and aerospace education, ERAU offers a wide array of academic programs in several disciplines. In Embry-Riddle's Worldwide campus, three colleges (Aeronautics, Arts & Sciences and Business) offer several courses of study.

Embry-Riddle launched the MSL degree program in 2012 with the vision of developing capable and confident leaders who will be prepared for organizational leadership in a hyper turbulent, global environment. The program was designed around six program outcomes that focus on developing a whole leader. The MSL program employed a backward design approach in curriculum development where the course learning activities were used to achieve course outcomes that are derived from the program outcomes. The intention was to create a coherent degree program focused on achieving the program objectives. The MSL is a 36 credit-hour degree program encompassing 10 core courses and two elective courses. MSL program developers believed that strong critical thinking is a foundational competency for exceptional leaders. Consequently, critical thinking was infused into the course development process.

APPROACH TO CRITICAL THINKING IN THE MSL PROGRAM

The MSL program uses a structured approach to incorporating desired learning points into the curriculum. Table 1 defines key terms used to describe the MSL program approach. The most important elements of the schema are *frameworks, techniques, activities and moves.*

Frameworks define and explain key concepts within the program. *Activities* are common assignments used to teach and assess the concepts. *Techniques* refine and develop the frameworks in a way that makes the concepts accessible to the students. Finally, *moves* to underscore key learning points and create shifts in mindset.

Table 1
Definition of critical thinking concepts with the MSL Program

Term	Definition
Activity	A unit of instruction designed to teach one or more concepts
CARS	An acronym for Credibility, Accuracy, Reliability, and Support used to evaluate a claim
Concept Map	A diagram used to develop and illustrate interrelated aspects of a concept
Elements of Thought	Eight essential components of thought (i.e., purpose, question-at-issue, information, interpretations and inferences, concepts, assumptions, implications and conclusions, point of view)
Frameworks	The concepts, theories, and models that form the basis for the content and modes of instruction
Going around the Circle	A technique to consider each of the eight elements of thought, so named because the elements are typically arranged in a circle
Intellectual Virtues	Universal principles guided by morality or justice (e.g., intellectual humility, intellectual courage, intellectual perseverance)
Intellectual Moves	Questions or practices intended to create an intellectual shift that causes students to understand concepts at a deeper level
Paulian Critical Thinking	A critical thinking framework based on the work of Richard Paul
SEE-I	An acronym for State, Elaborate, Exemplify, and Illustrate used to clarify a thought
Standards of thought	Criterion to assess reasoning (i.e., clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness)
Technique	A method of instruction that is designed to elicit certain learning behaviors while developing the concepts in a framework
QEDS	An acronym for Question, Elements, Discipline, and Standards used to remind students to consider the question-at-issue using the elements of thought, within the context of the discipline, against the intellectual standards

Frameworks

Frameworks are analytical models used to conceptualize program learning outcomes. These frameworks act as schema for students to approach and understand learning objectives. The program employs a variety of frameworks as part of the program curriculum. For instance, servant leadership is a leadership framework and transactional analysis is a communications framework taught in the program. This paper focuses on the critical thinking framework.

The MSL program primarily teaches the Paulian approach to critical thinking. Students study elements of thought, standards of reasoning, intellectual virtues, and barriers to critical thought. The Paulian approach is taught explicitly in the first three weeks of the first nine-week course. The first course is prerequisite to the eight other core courses and the capstone course. After the first three weeks of explicit instruction, the critical thinking framework is integrated into learning activities and instructional techniques so that critical thinking is infused throughout the entire curriculum. In this way, critical thinking concepts remain at a conscious level.

Activities

Learners are exposed to Paulian Methods through multiple activities that extend through the MSL program. The course designers developed common instructional activity types as the main tools for teaching and assessing students. The activity types are used for all instruction, not just critical thinking instruction. Readings are used to explore scholarly points of view on course concepts. Discussion questions provide an informal opportunity for students to interact with students and professors. Reflection blogs enable students to journal about how concepts relate to their lives. Case studies develop insight into how others have operated. Annotated bibliographies, literature reviews and papers are used to formally research and develop concepts. Presentations provide students opportunities to share their work in creative ways. Team activities offer students the opportunity to work more deeply with their peers. Concept mapping is used to explore the systems nature of concepts. The way these activities relate to critical thinking instruction is explained below.

In order to develop a baseline of critical thinking understanding, we provide direct instruction in basic critical thinking concepts and definitions for the first three weeks of the introductory course. During those first three weeks, students read Learning to Think Things Through: A Guide to Critical Thinking across the Curriculum (Nosich, 2012). The book is used as a textbook and helps establish the student's preliminary understanding of critical thinking.

Initially, students are asked to consider prominent definitions of critical thinking (Ennis, Lipman and Paul mentioned above) and to derive their own definitions based upon their own experiences, class discussions, and course readings. Students develop their thoughts about how these definitions differ, what might be missing or how the specific words are used in the various definitions. At this point in their study, the students have not been exposed to how to explicitly review a definition using critical thinking elements and standards. Consequently, most students develop a critical thinking definition derived from the presented definitions and that does not contain original concepts. Once learners have reviewed the definitions of critical thinking and started to read through the Nosich (2012) text, they are introduced to the instructional activities:

Discussion questions allow students an opportunity to examine aspects of course concepts. The students respond to a prompt that relates to one of the course activities and then engage with their classmates in an interactive discussion of the material. Other students can then provide supporting or counter-examples from their own experiences. Some discussion questions relate directly to critical thinking concepts and terminology, while other questions invoke critical thinking techniques in the discussion.

While discussion questions are public, reflection blogs are more private. Students are asked to journal about various concepts using reflection blogs. The blogs challenge the students to extend their thinking by applying concepts to their personal and professional experiences. The activity allows for reflection, deepening connections and applications for the leader's thinking.

Case studies are developed around short readings on leadership or organizational design challenges. The students use a systematic approach to analyze, evaluate, diagnose, and provide solutions to case challenges. Cases have ambiguous situations requiring learners to resolve

complexities and apply course learning material in novel ways. Students are challenged to think through cases thoroughly so that they do not dismiss potential solutions.

Students prepare annotated bibliographies using the elements of thought as the framework for the annotations. The elements of thought provide a suitable map for ensuring that the student annotates a source systematically and fully. Students describe a leadership article using the technique. They look at the author's point of view and purpose for writing the article. They consider the question at issue within the context of the leadership discipline. They review the facts and information available; evaluate the author's assumptions, and consider the implications and consequences of the author's reasoning. They look for overarching concepts within the literature review section. Finally, they evaluate the conclusions and interpretations. Instructors use the standards of reasoning to evaluate how well the student developed each element.

Literature reviews develop the student's ability to identify, review, evaluate, and synthesize scholarly sources. Learners choose leadership articles relevant to their particular interests and projects. Critical thinking is required to synthesize multiple sources effectively into a comprehensive review of the literature. Learners also must place their sources into a matrix form, which helps them learn to synthesize using a visual format.

The MSL Program requires papers formatted based on the style manual of the American Psychological Association. Assignment length is dependent upon the particular learning objectives for the activity; many papers fall within the range of 1000 to 1500 word count.

Students are encouraged to use the elements of thought as a general framework for their papers to ensure that they have adequately covered the material. Writing is one of the most effective ways for students to develop their thoughts into coherent, well-reasoned positions.

Learners develop and deliver presentations that present their findings, propose new strategies, or showcase specified information. Presentations encourage students to be creative, clearly articulate their ideas, and present concepts concisely and persuasively. Students learn to use new technologies and to avoid text-rich, bullet-heavy, presentations.

Some MSL Program activities are completed in teams. The activities are essentially the same as the individual activities except that the learners must develop a team charter in which they outline their roles, responsibilities, and commitments. The team activities are designed to create learning communities and cause the learners to navigate through the complexities introduced in a team environment. Learners are encouraged to confront biases, fallacies, and key intellectual standards as part of the team formation process and throughout the group activity. Learners develop important communication, leadership, and team building skills.

Concept maps are used throughout the program in a variety of activities. Maps are used to outline assignments; clarify and construct concepts; categorize, group and relate ideas as systems; connect and scaffold prior knowledge with course concepts; and explore possible connections. Additionally, concept maps are used to manage projects, tasks, and file structures.

The MSL Program activities are often ambiguous enough to allow students to develop and select the techniques they will use to accomplish the activity objectives. The ambiguity is intentional and, at times, causes dissonance with the students. Students often desire to be told exactly how to accomplish their objectives. The intention of the ambiguity is to persuade learners that life and leadership do not lend themselves to tidy answers or provide explicit instructions on

how exactly to achieve an A grade. Learners struggle with the concept and are often unable to grasp that meaningful learning may be more important than the grade they obtain in the course.

All of the activities are graded using customized rubrics that contain critical thinking components. For example, discussion questions and papers are graded to ensure that students adhered to standards of thought and that students gave appropriate coverage to each element of thought.

Learners take the Critical Thinking Basic Skills Assessment (Thinking, n.d.) four times during the MSL program. The assessment is not graded as part of the coursework and is used to provide an external benchmark for the learner's knowledge. We have not been able to collect reliable data to perform descriptive statistics on student performance. We intend to use the information to improve the integration of the critical thinking concepts into the curriculum.

To summarize, frameworks are concepts that we want to teach and activities are common instructional methods used across the program. We now turn our attention to techniques.

Techniques

Techniques are used to further explicate and develop the frameworks and to accomplish the work of the activities. Techniques are usually specific to an educational objective. As an example, a SWOT analysis is a common business technique for evaluating the strengths (S), weaknesses (W), opportunities (O), and threats (T) of a project. A SWOT analysis would be appropriate to evaluate the feasibility of a marketing campaign but would not be effective to conduct a breakeven analysis for a new product.

We develop the critical thinking framework using the specific techniques of going around the circle to capture each of the elements, assessing the thinking using the standards of reasoning, using the SEE-I technique to improve clarity, reading critically to ensure understanding, writing critically to aid expression and develop coherence of thought, mapping concepts to develop a systems approach, using QEDS to develop thinking within the discipline, and using CARS to evaluate Internet resources.

1. *Go around the circle to capture each of the elements: Going around the circle is a method used to ensure that each of the eight elements of thought are considered for the question at issue. It is not important to consider each element in a certain order; however, because all thinking contains all of the elements, it is important to cover each element individually.*
2. *Assess the thinking using the standards of reasoning: Critical thinking is assessed against nine key standards of reasoning: clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness. MSL Program thinkers assess their thinking by examining their thinking against each standard.*
3. *Use the SEE-I technique to improve clarity: SEE-I is used to clarify a thought by developing the thought beyond the initial statement. Elaboration provides additional context to the initial statement that might be started with the statement "In other words…." Generally, students are instructed to elaborate in four sentences or more. The example helps to increase understanding with a concrete exemplar that limits misinterpretation. The concept is illustrated with a simile, metaphor, model, or some illustration that is representative of the idea.*
4. *Read critically to ensure understanding: Critical reading entails carefully reading material using the critical thinking framework to analyze and assess the material. The reading is reviewed for*

coverage of the elements, assessed using the standards, and evaluated against intellectual virtues and barriers to thought.

5. *Write critically to aid expression: Critical thinking skills are developed through writing exercises. Students go around the circle and ensure that they have discussed each element of thought. They hold their writing up against the standards and consider whether their writing exhibits barriers to thought.*
6. *Concept mapping to develop a systems approach: The MSL Program uses a concept mapping software program that allows ideas to be connected to multiple other ideas using parent, child, and cross-link relationships. The concept map is used to show that leadership concepts are interrelated and exist within a system. The software program automatically recognizes when a word has been used and provides a prompt to the user to create a cross-link to the previous concepts. It is useful to map the elements of thought for a particular idea.*
7. *QEDS to develop thinking within the discipline: The QEDS approach is used to examine a question, thinking through each element of thought within the leadership discipline while applying the intellectual standards to their thought processes. This approach is used to emphasize the need to think through ideas within the leadership discipline or within a leadership context. This is useful to help the thinker consider context and point-of-view carefully as well as consider a slightly different question at issue if necessary.*
8. *CARS to evaluate Internet resources: CARS is a simple approach for evaluating Internet sources. The source is examined for evidence that the author has made a credible claim that appears to be trustworthy and to determine if the information presented appears to be accurate, relevant, and complete. The source is examined for reasonableness to determine if the claim was presented evenly, in a fair and unbiased manner. Finally, the source is examined to determine if the claim can be corroborated using other sources or the documentation supplied. The CARS approach is not rigorous, but can be used to quickly evaluate an Internet source.*

The techniques are effective in assisting students develop a better understanding of how concepts are constructed. A challenge for professors is to ensure that students connect the purpose of the techniques with the desired learning outcomes. That connection helps the student see the bigger picture and also prevents students from developing the perception that they are wasting their time on useless assignments. The program does have some built-in assurances that students will understand the connections through the use of intellectual moves.

Moves

An intellectual move is used to help students understand concepts. The idea behind the moves is that they challenge the learner to engage the material at a different level. Instead of intellectualizing a concept, the learner is asked to play with the concept in a way that makes it more real and more accessible. A move is typically a question that invites the learner to confront a potential bias or block. Moves are essentially a form of Socratic questioning that creates a rich possibility for deep interaction between students and professors. Table 2 provides a sample of intellectual moves and describes the purpose and intended result of the moves.

Table 2
Representative Intellectual Moves

Move	Purpose	Result
Would you be happy to learn your surgeon had the same study habits that you have?	Challenges the learner to think about whether study habits are suitable.	This can be a trigger that study habits need to be improved
Do you have the intellectual perseverance to complete this program at a high level?	Causes the learner to consider intellectual perseverance as prerequisite to success.	The learner is challenged to commit to the intellectual perseverance required to excel in the program.
Is the value of your degree program diminished if social loafers successfully complete the program?	This question causes the leaner to feel indignation towards people who do not provide sufficient effort.	Increases commitment, intellectual perseverance, and recognition of value of degree.
Describe what you will have learned in the program by the time you complete.	This question puts learners into a forward thinking mode.	Learners starts to design their own learning objectives; they start to challenge or adopt given learning outcomes.
How can you immediately put this knowledge that you have learned in this activity (course or program) to use in your work or your life?	Reinforces immediate, positive, and actionable result from the activity that can be applied to the learner's situation.	Learner incorporates active learning into environment.
What were the three most important things you learned in this activity (course or program)?	This question causes the learner to reflect on the value of the learning experience.	Reinforces positive learning outcomes and engages reflective behavior.
How did your previous knowledge or experience benefit your classmates?	Reminds students that their knowledge, experiences, and stories are a primary means by which their classmates are learning.	Puts pressure on learners to ensure they are engaging in mutually beneficial interaction with their peers.
What concepts were unclear to you? How will you improve your understanding in these areas?	These questions help the students think through whether there were portions of the material that they did not understand.	Puts onus on students to improve learning strategy or reinforces their mastery of the material.
How is what you are learning about leadership in this activity (course or program) that is different from what you have experienced in your career?	This question helps the students use contrasting to bring in experiences from their lives.	In many instances, they will find that the experiences are similar to their own. Otherwise, they have a rich source of material from which to engage their classmates.
Ultimately, who is responsible for your learning (you, your instructor, your university, others)?	This question reminds the student that he is responsible for ensuring that he is getting the most out of the program.	Engages an internal locus of control and helps prevent them from placing blame on the instructor or the institution.
Ultimately, who suffers if you do not focus on what is important to your learning, your life, and your experience?	The question helps the student keep their priorities at the forefront.	Engages an internal locus of control.
How do your personal characteristics compare with the leadership concepts being studied (both strengths and weaknesses)?	Engages self-discovery awareness .	Leads to heightened self-awareness of how the learner is operating as a leader.

CONCLUSION

In Embry-Riddle Aeronautical University-Worldwide's MSL program, critical thinking is considered a foundational set of competencies, skills, and behaviors for leaders. Critical thinking can be systematically developed and cultivated. The MSL, incorporating many ideas from the Paulian view of critical thinking, introduces critical thinking in the first required course and then instills the critical thinking concepts through the entire program. The MSL program provides direct critical thinking instruction throughout the program and uses a critical thinking assessment to assess understanding of basic critical thinking skills. In addition, the MSL takes a structured approach to incorporating desired learning points into the curriculum through frameworks, activities, techniques, and moves aimed to improve student thinking of leadership concepts by engaging them in all of the material.

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FACTORS INFLUENCING GRADUATES RECRUITMENT DECISIONS: THE CASE OF TANZANIA CORPORATE RECRUITERS

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ABSTRACT

Recruitment process is one of the core functions of organizations as the quality of recruited employees affects the performance and the survival of an organization. Following mass enrolment in Higher Education Institutions, the quality of graduates brings with it a debate on how corporate recruiters recruit graduates. The study examines recent recruitment processes and recruiters search behaviour using case study approach. Interviews were conducted with human resources managers in different sectors to find out how corporate recruiters recruit graduates. Study findings reveal that graduate recruiters use more formal recruitment channels than informal channels when searching for new graduates. Both formal and informal methods are used to select potential applicants. There is a growing trend towards using assessment tests than academic qualifications during screening process. The study established communication skills, attitude, curriculum vitae presentation and behavioural qualities as important aspects that influence recruitment decisions of graduates by corporate recruiters. Study recommendations and implications for graduates and Higher Education Institutions' stakeholders are provided.

INTRODUCTION

Recruitment is among the core functions of organizations and effective deployment of human capital has clearly been recognized as a key contributor to organizational effectiveness (Ahmed, 2009). According to Richardson (1989) recruitment impact most critically the performance of an organization and acquiring and retaining high-quality talent is critical to an organization success. Following changes in the labour market, factors such as mass enrolment in Higher Education Institutions (Tan & French-Arnold, 2012) and advancement in technology (Hager, Holland & Veckett, 2002; Datta, 2001) have changed the way organizations recruit graduates (Steiner & Gilliland, 1996; Anderson & Witvliet, 2008). Indeed, technological change and globalization continue to increase the demand for skilled workers that can operate successfully in the global environment (Karoly, 2010). In this context, organizations are becoming more flexible and responsive and accordingly are changing their preferred recruitment channels in response to changing labour market conditions (Russo & Gorter, 2000; Russo, Gorter & Schettkat, 2001).

Studies on recruitment have focused on applicant attraction to organizations (Larsen & Phillips, 2002; David, 2005; Celani & Singh, 2011), recruitment sources (Rynes, 1989) and employers' recruitment behaviour (Behrenz, 2001; Gorter & Rietveld, 1996; DeVaro, 2005) with the later studies; addressing little on how corporate recruiters recruit new graduates. Gorter & Rietveld (1996) argues that recruiters prefer advertisements as the first recruitment channel when applicants are required to have work experience. Additionally, employers search for personal qualities and characteristics such as professional knowledge, personal engagement and social competence (Behrenz, 2001) characteristics less reflected to new graduates. Few studies have

conceptualized and empirically address the processes and mechanisms explaining how personal characteristics and in particular skills attributes may influence corporate recruiters' decision during recruitment of new graduates (Stewart & Knowles, 2000; Mora & Ferrer-i-Carbonell, 2009). Recruitment of new graduates by corporate recruiters brings with it different decision making strategies making the subject of interest to explore.

This study addresses this gap by creating empirically grounded propositions on how corporate recruiters make recruitment decisions during recruitment of new graduates in the Tanzanian context. The study responds to the questions; what recruitment strategies do corporate recruiters use to obtain employable and qualified new graduates? What skills attributes do corporate recruiters consider important when making decisions within the recruitment and selection process? What tools and criteria do corporate recruiters use to assess the possession of the skills attributes among new graduates during recruitment process? Abel, Deitz & Su (2014) define a recent graduate as a graduate who is twenty-two to twenty-seven years old and has graduated within the first five years. In this study, a new or a recent graduate falls within the age range, but should have graduated a bachelor's degree within the first three years.

Literature review was conducted to establish the state of art on recruitment channels, potential screening tools and selection criteria used by corporate recruiters. Interviews were conducted with 22 corporate recruiters in Tanzania, firms that operate at local, national and multinational levels. Study findings show that recruiters use formal recruitment channels to attract new graduates. Recruitment from all disciplines is common in auditing and banking financial institutions. In relation to screening of the applicants, there is a growing trend towards using tests particularly aptitude tests to screen applicants views also shared by Branine, 2008. Besides assessing graduates soft skills; employers also demand basic technical and general knowledge from the applicants the attributes that are assessed during interview process. Study findings echo Branine (2008) study on graduate recruitment and selection in the UK, where employers regardless of organization size and activity type tend to use more sophisticated methods of recruitment and selection than before. Study findings can further be tested to a large sample of recruiters to allow for generalization of the study findings.

The study contributes in terms of knowledge first; to recruitment theory where indirectly observable qualities such as self expression are emphasized during recruitment process. Second, the study highlights search channels where new graduates need to focus on if they want to be recruited in corporate firms. Third, the study provides a range of selection tools and criteria besides academic qualifications that recruiters focus on during recruitment process. HEIs' can enhance graduates' understanding on the selection tools and criteria to enable for their smooth transition to the labour market.

The remainder of the paper is structured as follows. Section 2 discusses the Tanzanian context. Section 3 reviews literature on recruitment process, Section 4 describes study methodology. Section 5 discusses study findings and the last sections provide policy implication, study limitation and conclusion.

HIGHER EDUCATION GRADUATES AND THE TANZANIAN LABOUR MARKET

The growing trend towards unemployment among graduates has been experienced worldwide as many countries suffer the consequences of the global economic recession and worse projections have been made in many countries (ILO, 2013). In Tanzania similar trends have been experienced and the challenge is not only in addressing graduates unemployment

rather it is about absorbing the new entrants to the labour market following mass enrolment in HEI's (TCU, 2009; 2012). According to TCU (2012) facts and figures, enrolment in HEI's has increased by 87 percent from 2001 to 2011 and this came about in response to the government decision to liberalize the establishment, ownership and management of HEIs'. At the graduation rate of 25 percent, almost 75 thousand graduates were released in the labour market in 2011 and it is expected that there will be a 100 thousand plus graduates entering the labour market in 2014 compared to 28 thousand plus graduates that graduated in 2004.

Finding jobs was not a big problem for university and college graduates when the demand for employing university graduates was high, and when university education was elite education (Karadisi, 2012). The government was the main employer of graduates since independence (1961); the practice that changed in 1992 following a new regulation aimed at reducing government expenditure (URT, 2011). This era was characterized by retrenchment of workers and lack of employment among graduates, which was a tragedy for a poor country to have unemployed graduates (Nyerere, 2001). Though the contribution of private and the industry sector to job creation is remarkable (Olomi, 2012), limited information is available on the number of graduates absorbed by the private sectors and available job opportunities in corporate firms and in other sectors.

Karadisi (2012) in assessing the effectiveness of Tanzania universities and colleges in imparting skills demanded by the labour market indicates that; the skills imparted to graduates are not effective to meet labour market demands. While graduates with high level of employability skills are finding it easy to secure employment in any firm, graduates lacking those skills find it difficult to find graduate employment given the competitive nature of the labour market. This necessitated introduction of entrepreneurship courses in HEIs' to enhance such skills, initiatives that are not available for all students in the Tanzanian context (Sabokwigina, 2008; Kilasi, 2011).

FACTORS INFLUENCING GRADUATES RECRUITMENT PROCESS DECISIONS

Recruitment is described as a set of activities and processes used to legally obtain a sufficient number of qualified people at the right place and time so that people and the organization can select each other in their own best short and long term interests (Schuler, 1987). According to Rynes (1989), research on recruitment primarily focuses on three sets of variables namely recruiters (applicant impression and decisions to join recruiters of various characteristics), recruitment sources (recruiters' preferences for various recruitment sources) and administrative policies and procedures (recruitment follow-ups and application processes after job acceptance) with more research conducted on applicant attraction to the recruiter (Keenan & Scott, 1985; Larsen & Phillips, 2002; David, 2005; Gomes & Neves, 2011). Research on recruitment has also focused on personal characteristics and individual factors that affect recruiters' decision during screening and selection process. Such factors include education (Becker, 1964; Schultz, 1961), relevant experience and learning abilities (Spence, 1974), attitude (McClelland Koetzer & Weinberger, 1989) and indirectly perceivable qualities such as emotional stress and innate abilities (Albrecht, 1981). Research also provides confirming evidence for a link between employability skills (a synergic combination of personal qualities, skills of various kinds and subject understanding) (Knight & Yorke, 2003) and recruitment. The skills are also categorized into core or hard skills (technical knowledge) and soft skills (process skills and personal qualities) (Lorraine & Sewell, 2007; Knight & Yorke, 2004). A perfect blend of

employability skills contribute to enhancing recruitment decision process (Harvey, 2001) and in particular recruitment of new graduates in the current trend following labour market changes.

Recruitment process is categorized into different stages ranging from job advertisement, application process, screening of the job applicants and selection of the right applicants (Hogarth & Wilson, 2003; Devins & Hogarth, 2005). In relation to successful recruitment process are the strategies organizations employ in order to identify and select best candidates for its developing pool of human resources (Dessler, 2000; Richardson, 1989). The strategies are diverse and largely depend on employers' sector, nature of service, nature of applicants and involve exploration of search channels, screening tools and selection criteria. In other instances, an overlap exists between screening and selection processes making it complex to differentiate the tools and / or criteria used under each process.

To attract potential job applicants, recruiters use formal (newspapers, recruitment centres, career talks, graduate programs) and informal search methods (internal recruitment, word of mouth and informal networks). The key factors driving employers' choice of recruitment channel include; the channels' ability to bring qualified candidate (Gorter & Rietveld, 1996), labour market conditions (Russo & Gorter, 1996), nature of the job (Bunt, McAndrew & Kuechel, 2005) and related costs (Behrenz, 2001). Rees & Shultz (1970) argues that informal methods generate more intensive information and are more preferable for short recruitment duration.

Recruiters use different tools and criteria to screen potential job applicants. There exist formal (such as curriculum vitae (CV), tests, interviews, assessment centres, work experience, probation periods) and informal recruitment techniques (such as referrals). While work experience is likely to be assessed during application process, personal traits are most commonly assessed by subjective judgment in the interview process (Devins & Hogarth, 2005). Assessment centres are used to observe applicants' team-working and soft skills (Arthur & Edens, 2003). Nebraska (2011) suggests for multiple recruiting channels such as career talks and graduate recruitment programs to provide information about job when recruiting graduates.

The quality and nature of the position also affect whether an employer uses formal or more informal method to select and screen job applicants. While the use of recruitment agencies and national newspaper advertisements are most effective in recruiting to senior managerial and professional occupations (CIPD, 2005), local newspapers and recruitment agencies are most effective channels for graduates and the unemployed people (Hogarth & Wilson, 2003; CIPD, 2005). In relation to the screening and selection of the potential applicants, Jenkins & Wolf (2005) identify the extent to which employers use tests over qualifications in the recruitment process instead of relying on historical evidence presented in a CV or application forms. According to Newton & Akroyd (2005), psychological tests ranging from aptitude, personality and intelligence are commonly used to measure skills attributes and in particular they assess applicants' soft skills competencies. A CIPD (2005) survey of UK employers for example shows that the most common selection methods used to short list and screen job applicants include interviews, CV or application form (68 percent), tests for specific skills (50 percent), literacy & numeracy tests (39 percent) and telephone interviews (30 percent) commonly in call centres given their relevance to the job. While one-to-one interviews was common in private sector, academic references was commonly used by the public sector and structured interviews with a selection panel was frequently used for senior and managerial roles.

Other factors that affect recruitment process include; gender, social economic status and ethnicity (Blasko & Shah, 2002), study institution in terms of reputation and image (Deephouse

& Carter, 2005; Pampaloni, 2010) together with age of the applicant and experience (Behrenz, 2001). For example, an exploratory study of Swedish employers by Behrenz (2001) on who gets the job and why found out that, about 60 percent of employers regard lack of education and experience as the major reasons to eliminate applicants as not appropriate for the vacancy. Age of the applicants is also used to screen applicants where applicants above 45 years of age are eliminated.

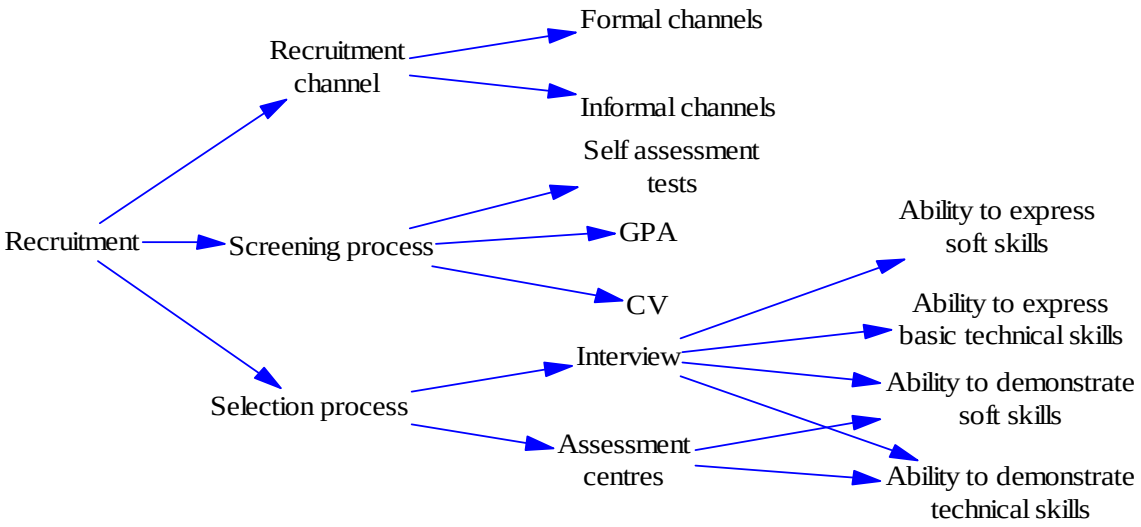
While recruitment decision factors cut cross different industries and job types, studies on recruitment of new graduates referred to as entry level jobs indicates that employers expects younger people to be less likely to have work experience. According Johnson & Burden (2003) new graduates recruiters tend to focus upon soft skills and behavioural attitudes during recruitment process, with a less prominent role played by qualifications which traditionally has been used as major selection criteria. While some employers screen job applications on the basis of degree classification, others often require applicants to undertake a series of skills activities and tests to produce a personality profile (Arthur & Edens, 2003). Such practices widen access to more diverse group of potential job applicants who may otherwise be missed because they have not attained good academic qualifications (Morley & Aynsley, 2007). In addition, the honours degree classification system may not be reliable (Yorke & Knight, 2007) and there have been concerns about grade inflation (Germaine & Scandura, 2005.) following different regulations and practices pertaining to degree outcomes in different universities (Yorke & Knight, 2007). In contexts where advanced general skills are scarce, recruiters acquire and develop such skills through accumulating mechanisms, which include effective selection and continually enhancing those skills internally through both training and work (Ghoshal, Moran & Bartlett, 2001).

Other employers hire graduates from a range of disciplines and select the ones that are flexible, adaptive and capable of learning on the job. Such firms are committed to lifelong learning and have identified values which are used to determine cultural fit of its employees (Hager et al. 2002). Studies by Ratcliff & Associates (1995) found out that other employers recruit from a limited range of institutions with a view that there will be as much diversity within universities as between them.

Based on the literature outlined, no studies have critically assessed how corporate firms recruit new graduates following mass enrolment in HEIs' and particularly in the Tanzanian context. Additionally, though the skills attributes are assessed by recruiters during recruitment process, few studies have assessed when such attributes are assessed during recruitment process. Recruitment being the function of application through the right channel(s), screening and selection processes, establishing what is assessed under each process will add value to the current literature and to different stakeholders of HEIs including graduates.

Figure 1 presents the study conceptual framework. To summarize the figure, applications are accompanied by academic credentials and CV or application forms (Jenkins & Wolf, 2005). Once screening is done, applicants are further subjected to interview process where they demonstrate the skills attribute (Newton & Akroyd, 2005). Applicants can further be assessed through assessment centres depending on the nature of organization (Arthur & Edens, 2003). Graduates who pass the selection process are more likely to be recruited by prospective employers and develop their career thereon.

Figure 1
Distribution of recruiters by size



METHOD

To understand the dynamics of graduates' recruitment process, qualitative methodology was considered well suited to achieve the study objectives (Eisenhardt, 1989; Yin, 2003; Maurer & Ebers, 2006). Qualitative data have strong advantage over quantitative data in drawing insights that could not be gained with hard data (Mintzberg, 1979; Smirchich, 1983; Orum, Feagin & Sjoberg, 1991). According to Jones (2001) focusing on more narrowly defined groups of recruiters, generates rich data and that qualitative data are rich and holistic, with strong potential for revealing complexity.

Interviews were conducted with 22 corporate recruiters in Tanzania to gain an understanding on; recruitment procedures; (search channels and application process), decision factors and policies influencing the process; (screening tools and/ techniques), what employers consider during selection process (selection criteria) and factors employers think influence new graduates' recruitment decisions. The sample is representative in the Tanzanian context and provides a good source of data for the study as it addresses the research questions. According to (Eisenhardt, 1989; Yin, 2003) research based on qualitative studies should include between 4 and 10 cases to reach theoretical saturation and through the sample, theoretical saturation was realized. Selection of case studies was purposive and reflected a range of employer types, sizes and sectors. The criteria for sample selection were whether the recruiter had recruited new graduates over the past three years and that they attract new graduates from different disciplines a growing trend among corporate recruiters (Kostoglcou, Vasilakopoulos & Zafeiropoulos 2007).

Study participants were first contacted via telephone to establish their willingness to participate in the study. This was followed by email conversation exploring issues pertinent to the research objectives. On average the interviews sessions lasted for forty to sixty minutes. Interviews were transcribed in a non-linear fashion; whereby participants responses not related to the question asked but relevant to another section were included in the respective section

accordingly. Information obtained was exhaustive since most of the interviewees rephrased the statements in different words. The transcripts were imported into MAXQDA 11, qualitative research software to facilitate the analysis. Both classical and free codings were used during the coding process and a total of 15 codes with related sub-codes were created. Free coding was used to ensure no information is missed in the coding process. To verify the coding, data was processed more than twice with two researchers going through the interviews. In terms of measures, the variables assessed were recruitment channels, screening tools, selection criteria and recruiters' expectations as reflected in figure 1.

The distribution of respondents based on the nature of business and sample size is reflected in Figure 2 and 3 respectively.

Figure 2
Distribution of respondents by nature of business

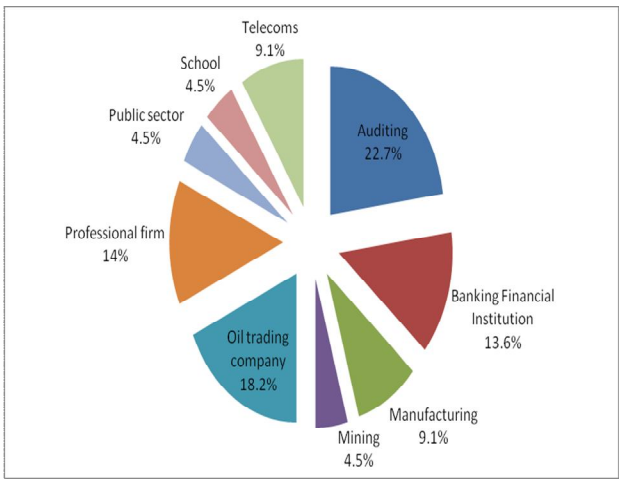
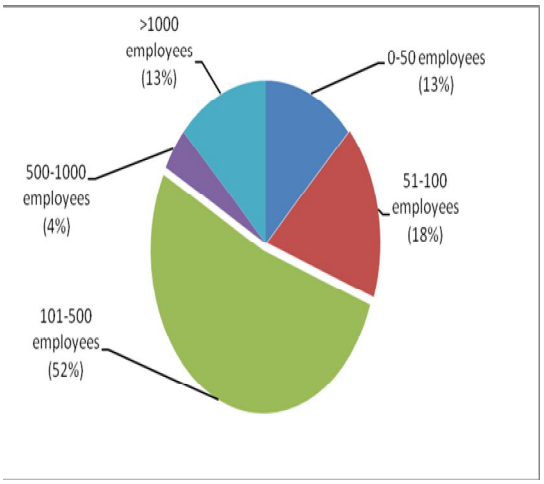


Figure 3
Distribution of recruiters by size



RESULTS

In terms of characteristics, 72.7 percent of the respondents are privately owned, 18.2 percent have public - private partnership and 9.1 percent are owned by the government. This indicates that a good number of corporate firms are privately owned. All firms had a personnel and recruitment department, characteristic common in large firms. 16 firms (72.7 percent) offer 0-20 open posts per year and 5 firms (22.7 percent) receive 1000 plus applicants per year common in the public sector, auditing firms, recruitment agencies and the mining sector. There exists diversity on the nature of graduates demanded by recruiters. While 22.5 percent of study respondents recruit from specific disciplines, 66.63 percent recruit from all disciplines and 10.67 percent recruit from specific institutions. On average auditing firms receive more graduate applications and over half of firms (59.1 percent) receive 0 - 200 applicants. Table 1 summarizes number of job applicants per nature of service and the recruiters open posts per year.

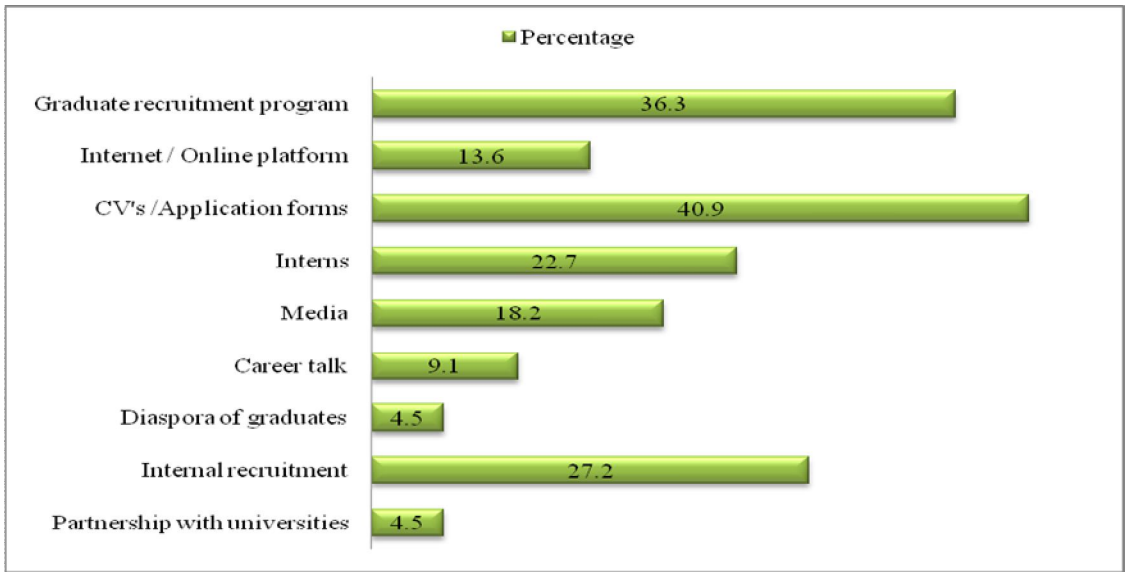
Table 1
Firms characteristics

Attribute	Categorization	Sector										
		Oil Trading Companies	Auditing	Education Institution	Banking FIs'	Recruitment agencies	Civil sector	Industry/ Manufacturing	Telecoms	Mining	Total	Percent
Job applicants per year	0-200	4	2	1	1	2	-	2	1	-	13	59.1
	201-400	-	1	-	1	-	-	-	-	-	2	9.1
	401-600	-	-	-	-	-	-	-	1	-	1	4.5
	601-800	-	-	-	1	-	-	-		-	1	4.5
	601-1000	-	-	-	-	-	-	-	-	-	-	-
	1001 and above	-	2	-	-	1	1	-	-	1	5	22.7
Open posts per year	0-20	4	4	1	2	1	-	2	2	-	16	72.7
	21-40	-	1	-	1	-	-	-	-	-	2	9.1
	41 and above	-	-	-	-	2	1	-	-	1	4	18.2
Total percentage (percent)		18.2	22.7	4.5	13.6	13.6	4.5	9.1	9.1	4.5	100	

Recruitment channels

As reflected in Figure 4; 40.9 percent of the recruiters receive drop-in CV's. This is a useful means of attracting a wider pool of applicants by recruiters' and is cost effective. Auditing firms are the ones leading in receiving drop in CV's (44.4 percent), followed by recruitment agencies (22.2 percent) and schools (education sector) and telecoms and banking each with (11.1 percent). The most used recruitment channels are graduate recruitment program (36.3 percent), internal recruitment through informal networks such as word of mouth (27.2 percent), database of interns (22.7 percent), advertisements through media such as newspapers (18.2 percent) and online platforms (13.6 percent). Other channels are career talks (9.1 percent) and diaspora of graduates and partnership with universities both with (4.5 percent). Graduate recruitment program is used by telecom companies (37.5 percent), Oil trading companies (25 percent), Mining (12.5 percent), Recruitment agencies (12.5 percent) and Auditing firms (12.5 percent). Internal recruitment is commonly used by recruitment agencies (60 percent), oil trading companies (20 percent), telecoms (10 percent) and schools (10 percent).

Figure 4
Recruitment channels



Nature of job applicants sought for by recruiters

The study analyzed the nature of job applicants demanded by corporate recruiters. Almost 60 percent of all recruiters recruit applicants depending on the nature of their business or service. Recruitment from all educational backgrounds which was represented by 40.9 percent is common in auditing firms, banking & financial institutions and telecom companies. Among the reasons for recruiting graduates from different fields include; solving business problem demanding expertise from other fields. Substantiating this with an illustrative quote, one staff partner commented that;

> *We need inquisitive minds from other disciplines to solve auditing problems. We recruit people from education, law and medicine and even other disciplines... they pass very well in our aptitude tests and even in our profession qualification exams. We don't have scientific explanations but it is through challenges we came to work on this aspect and it gives us a broad ability to work with people from different disciplines (7_Auditing firm).*

In the same line, study participants were also of the view that some graduates are not oriented to their right careers in the course of their study not only at the university but even from the lower levels. In due course when such graduates are oriented to the right career during job orientation and job rotation, they become best candidates in other fields different from their study disciplines. The new placement after orientation may definitely determine ones future career. As another staff partner said;

> *This is an accountant firm but we do not attract only accountants. We go to universities…; we attract good candidates from all disciplines to apply whether from Education, from Science... If they meet our requirements we take them and we make them become very good accountants. We have got very good examples... (5_ Auditing firm).*

Another interviewee commented that;

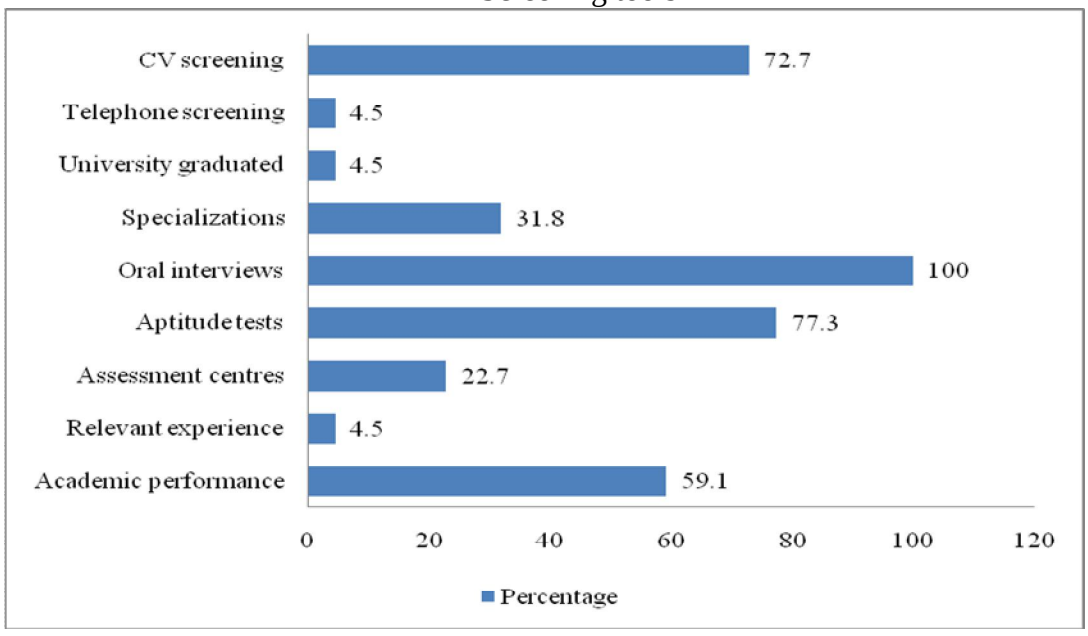
We use graduate program as recruitment channel and this involves recruiting graduates directly from school and put them under coaching and training. This takes 2-3 yrs before we expose them to managerial positions. We get accountants, engineers but later they become very good marketers. For example I had a friend of mine who is a medical doctor but he is among the best HR in the country... (9_Telecoms).

Screening tools and selection criteria

Study respondents were to respond on the tools used to screen best applicants. As reflected in Figure 5, all recruiters use interviews during selection process. Interviews are best suited as they assess oral communication, self expression, language command and how sociable are the applicants when faced with an interview panel (Devins & Hogarth, 2005). Other highly ranked screening tools are aptitude tests (77.3 percent), CV screening (72.7 percent) and academic performance (59.1 percent). Aptitude tests are best suited for recruiters who receive a large number of applicants and those needing more skilled employees. On the academic performance, other firms extend the pass marks to include subject performance from lower levels particularly in Mathematics and English commonly in auditing firms. As one of the staff partner narrated;

...We did a test and found that people who did well in Maths and Science have good analytical mindset and we decided to go to lower level to look for the graduates who did not study Math at the university (7_Auditing firm).

Figure 5
Screening tools



It was also noted that the tools / criteria are used at different stages of recruitment process. While some firms use interviews as first criteria others use interviews as last criteria before recruiting the applicant. Other recruiters in addition to the aptitude tests subject applicants to personality test to assess areas that demand clarifications during interviews. As reflected in

Table 2; academic performance and relevance of the technical specialization are the first screening tools each with 40.9 percent. These are the factors that are considered when employers go through a CV. It can as well be noted that 27.2 percent of the firms do not use CV as a screening tool rather they use assessments tests particularly aptitude test which ranked second high (36.4 percent). Though academic qualification and technical expertise ranked first as screening tools; 22.7 percent of the recruiters reported academic qualification in terms of grand average point (GPA) as not applicable as selection criteria. Additionally 27.3 percent of the recruiters commented applicant's technical expertise is not applicable as screening criteria. With an illustrative quotes;

> *We do not focus on GPAs. I have realized not only people with A's perform well; people with C's; (the average people) are the ones that perform wonderful. I do not look for GPA, I look for the output. (23_Manufacturing firm)*

> *Previously we considered GPAs but now we have got many problems as there are many universities and we do not know how they compute their universities qualifications. Graduates from some universities have lower GPAs but perform well. Applicants with equivalent qualifications might have very good GPAs but are not good (11_Civil sector).*

Table 2
Screening tools used by firms

Screening tools	1st	2nd	3rd	4th	5th	N/A
Trial / Probation period	9.1	9.1	9.1	18.2	27.3	27.3
Use university pass marks (GPA)	40.9	27.3	4.5	-	4.5	22.7
Aptitude and Personality Test	9.1	36.4	31.8	22.7	-	-
Relevance to the vacant post in terms of technical expertise	40.9	18.2	9.1	4.5	-	27.3
Assessment Centre	-	-	13.6	9.1	-	77.3
Oral interview	9.1	18.2	22.7	45.5	4.5	-
University where one has graduated	9.1	-	-	-	-	90.1
Telephone screening	-	4.5	-	-	-	95.5
CV screening	36.4	36.4	-	-	-	27.2

N/A – Not Applicable

Figure 6 further presents summary of the screening tools as per the recruiters' nature of business or service. The findings show that, aptitude test, oral interview and CV screening are almost used by all recruiters during recruitment process followed by academic qualifications. Second, work experience, study institutions and telephone screening to be the least methods used by the study participants during recruitment process.

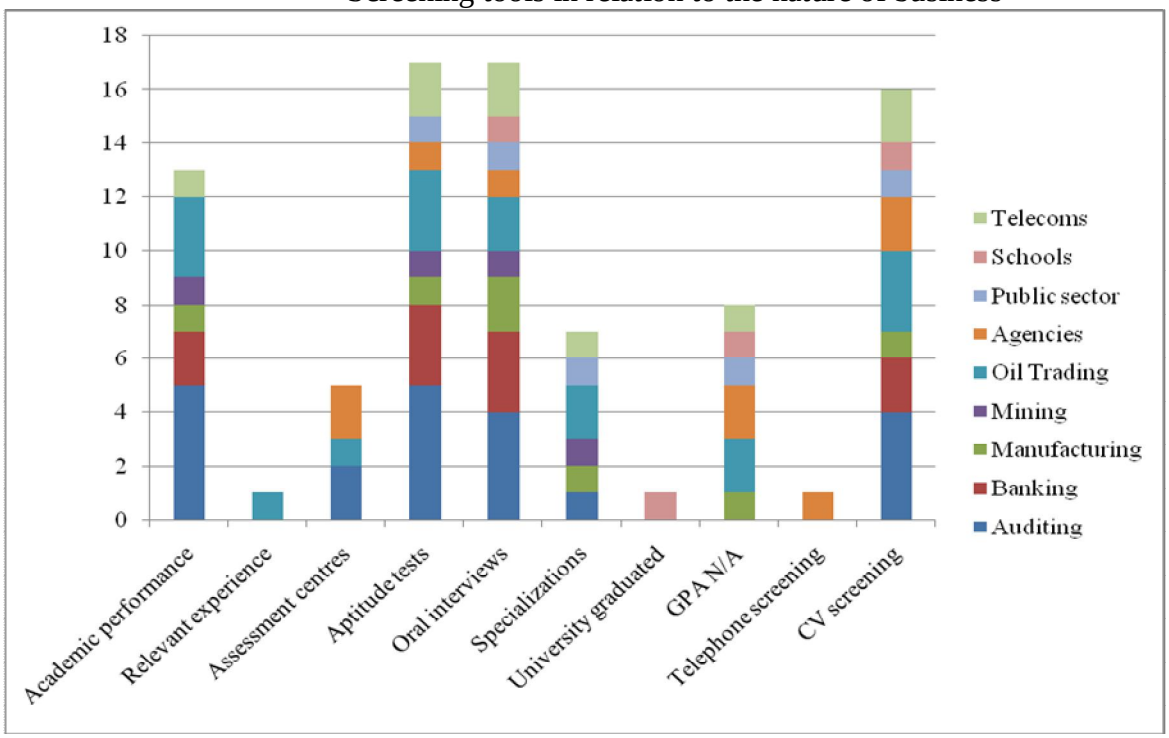
Interview process

Nature of interview questions

Prior to the interview process, an interview panel is selected. Study participants interview panel consist of; a team of Human Resources Manager, respective department member and a member from another department (81.8 percent); professionals in the field of recruitment (4.5 percent) and consultants from different specializations (4.5 percent). During interview, though interviewers expect graduates to have lack of formal relevant experience, experience obtained

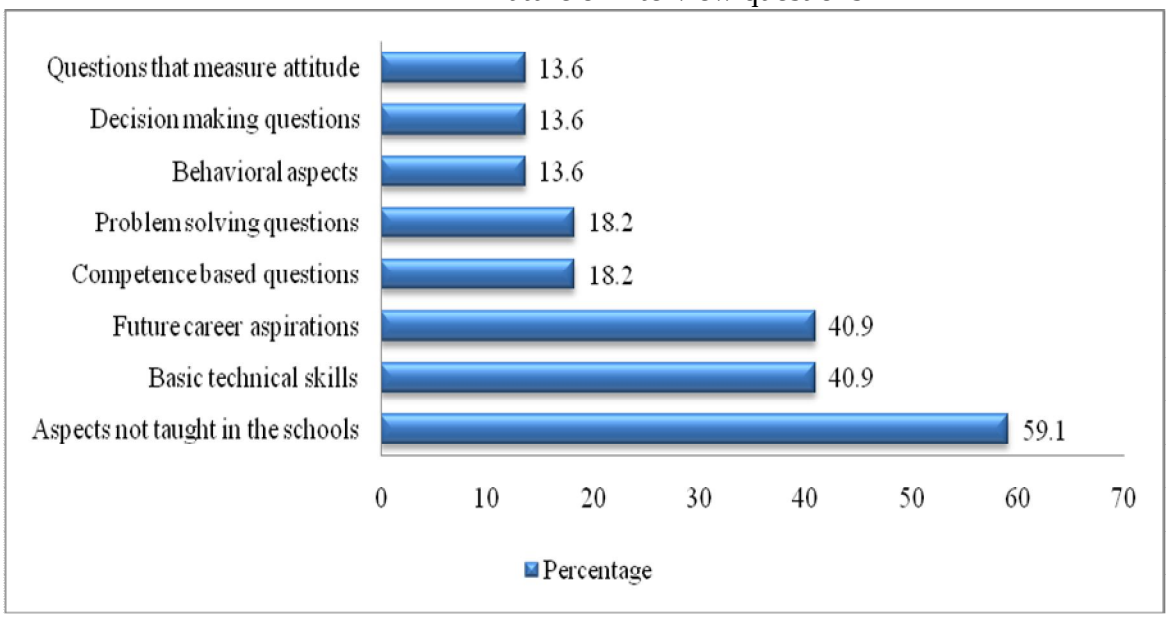
from their engagements in formal and informal activities is important. As reflected in Figure 7; 59.1 percent of the study participants ask questions that focus on aspects not taught in school. Of these respondents; (31 percent) are auditing firms, oil trading companies (15 percent), recruitment agencies (46 percent) and schools (8 percent). The objective is to measure individual soft skills and ability to apply and transfer the knowledge learnt in the world of work.

Figure 6
Screening tools in relation to the nature of business



The interviewers also ask questions demanding individual understanding of the basic technical skills (40.9 percent); such as meaning of accounting in the banking industry and types of maintenance for engineers. In terms of representation, almost all recruiters ask questions demanding graduates understanding on basic technical skills with auditing and recruitment agencies each (20 percent) and 10 percent each for banking financial institutions, manufacturing / industry, schools, public sector, telecoms, and oil trading companies.

Figure 7
Nature of interview questions



40.9 percent of employers are also interested to know future career and aspirations of job applicants and in particular where graduates see themselves 5 to 10 years ahead. The study found out that of this representation, 50 percent were the auditing firms, oil trading companies and manufacturing each 15 percent and 10 percent each for recruitment agencies and school services. As one partner narrated;

> *The nature of our business is more of professional and the roles are pyramid shaped. (14_Auditing Firm).*
>
> *We want people who demonstrate the ability to grow from one level to another. These apply more or less in all firms (21_Auditing Firm).*

The study also established that 18.2 percent of the firms ask competence based and problem solving questions. Competence based questions demand candidates to give specific real life examples as the basis of their response giving reasons for their decisions, whether their action brought a positive or negative outcome(s), and what they learned from that experience. Competence based questions are commonly asked by recruitment agencies (50 percent), oil trading companies and public sector each with 25 percent. For the problem solving nature of questions; 50 percent are asked by auditing firms and 25 percent by both mining and recruitment agencies.

The study further found out that recruiters asks questions that measure attitude (13.6 percent), behavioural aspects (13.6 percent) and decision making questions (13.6 percent). In terms of firms representation, 67 percent of the decision making questions are asked by auditing and oil trading companies (33 percent); 25 percent of the behavioural aspects are asked by both mining firms, oil trading companies, the public sector and schools; and for the attitudinal questions half are asked by oil trading firms, auditing firms (33 percent) and schools (17 percent).

Employers' expectations during interview process

The study further established what employers would like graduates to express and demonstrate during interview process. The top ranked attributes included communication skills (90.9 percent), flexibility and adaptability (40.9 percent), knowledge about the company (36.4 percent) and how they will add value to the company (36.4 percent). Graduates need also to demonstrate good mastery of interviewing skills, presentations skills and a good command of English language. With an illustrative quote one HR commented that;

> *…Some students have higher GPA's and therefore hardworking is recognized if you pass well and this guarantee a good job but graduates need to demonstrate this and convince the employer of such high pass marks. Individuals' competencies and the ability to convince employer that the academics belongs to him / her and has achieved them is important (66_Manufacturing).*

Indeed,

> *...one is not bound to job descriptions but rather seeing beyond what is expected… one need to advice on the areas that are critical. We need people who can challenge the status quo and contribute, add value to the institution. For personal expression, one needs to express self and represent the institution outside (9_School).*

Behavioural aspects during interview and in particular body language and dress code are also given consideration. Additionally, applicants need to make an impact in the course of their conversations as well as expressing their ability to learn. As one Human Resource Manager explained;

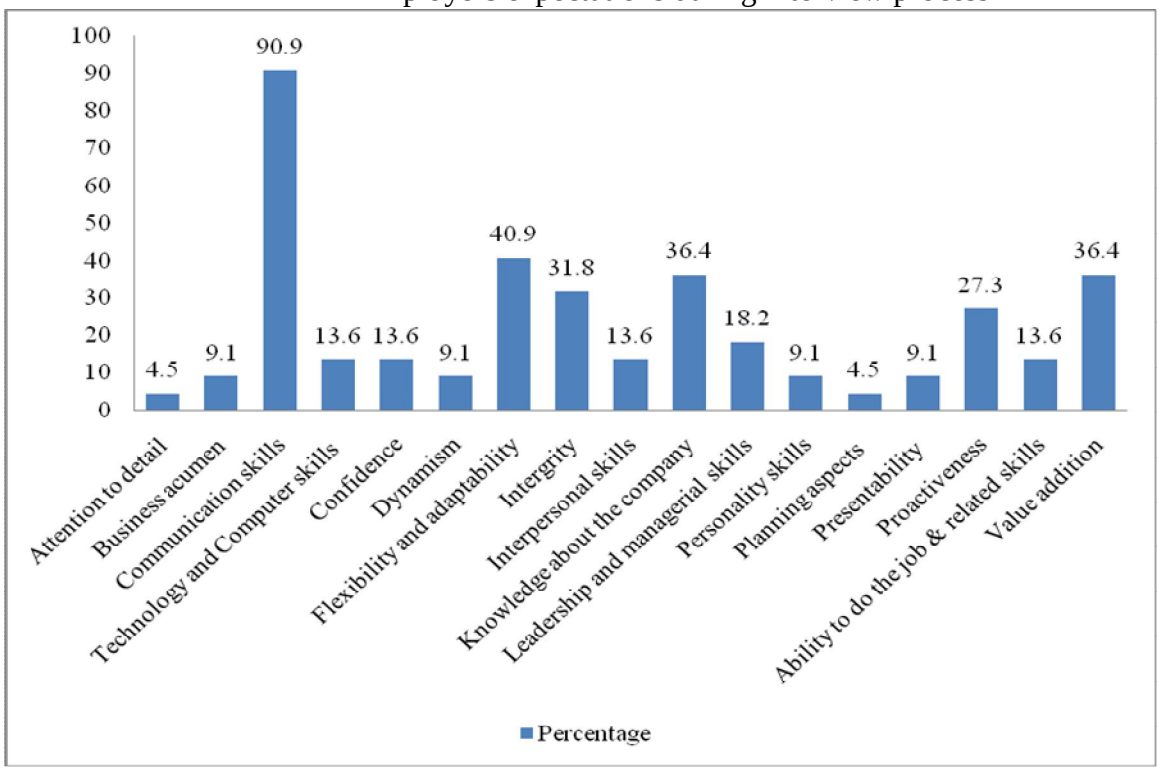
> *When you work as a human resource, you learn a lot of psychology. When an interviewee comes in, just by a look or by asking a question you understand the person. The problem with recent graduates, they do not know what an interview is, and how to conduct themselves before and during interview (13_Manufacturing firm).*

Business acumen (the ability to understand clients business in relation to the industry) need also to be demonstrated during interview process. As one staff partner narrated;

> *We need graduates with right attitude, with easiness to learn, eager to grow, with the right business acumen, better in terms of knowledge than our clients.... Auditors have to understand the business/ entity / industry in which the firm they are auditing operates.... but at times we do not get what we want. New graduates do not meet the required competencies. I am ready to get more, but there are few with the right attitude and acumen (16-17_Auditing firm).*

Other important aspects are as reflected in Figure 8 with most of them falling into broader aspects of employability skills as advocated by Yorke & Knight, 2004.

Figure 8
Employers expectations during interview process



Factors that influence recruitment process

The study explored employer's views on the factors that influence recruitment process as reflected in Figure 9. In order of preference the factors include communication skills (90.9 percent), attitude (77.3 percent), CV presentation (31.8 percent) and behavioural aspects (27.3 percent) with most of these factors assessed during interview process. Communication skills involve one's ability to market about self fluently and confidently. As one of the human resource manager narrated;

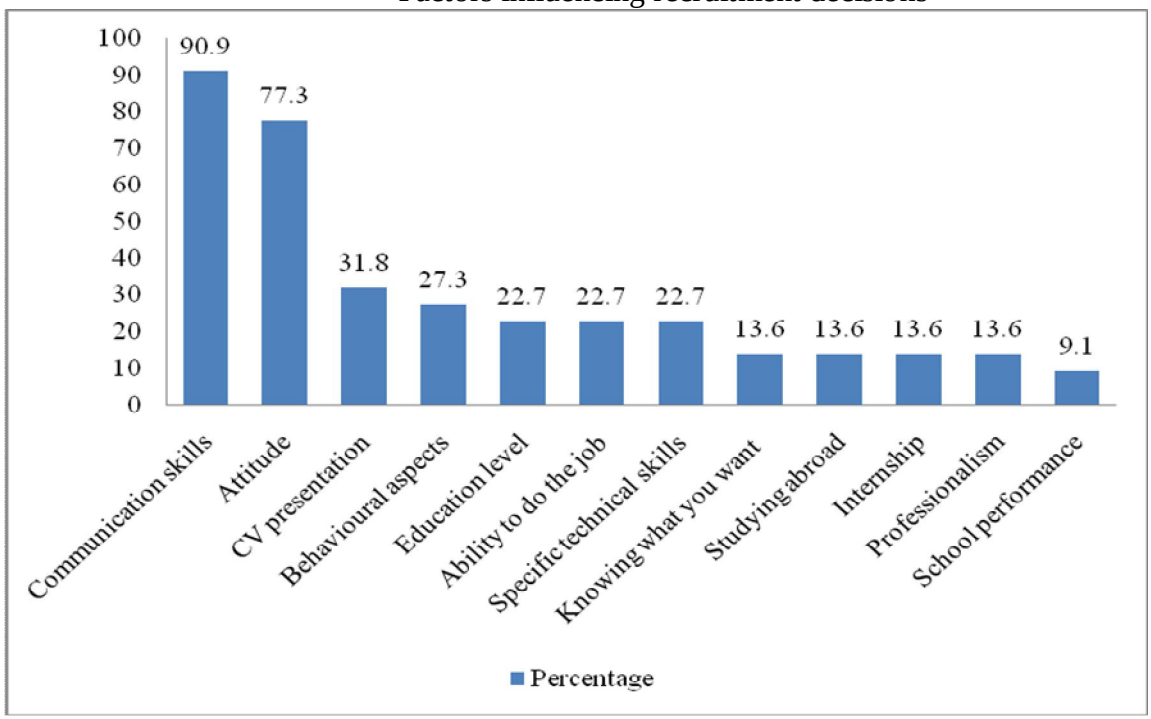
> *... People have got very good certificates. We do not employ the certificates. We look for the capability of a person to translate the learned or certificates to actionable. Certificates are there to back up…, beauty and books have to go together.... (25_Telecoms).*

> *…We need people with the ability to sell themselves. Interviews are a turning point. If you cannot sell yourself it is useless. (39_Recruitment agency).*

Attitude has to do with the ability to be ready to learn and as an entry job applicant the willingness to start at any level and / or any cadre. Other attributes that fall under attitude are the ability for someone to take things at one time and the belief that it takes time for one to develop a career and in the process one has to learn and adapt to the world of work. Other aspects include level of education (6.2 percent), whether one has attained a university degree or other equivalent qualifications and that they possess professional qualifications; ability to do the job (6.2 percent) and the basic technical knowledge (6.2 percent). School performance was found to be the least

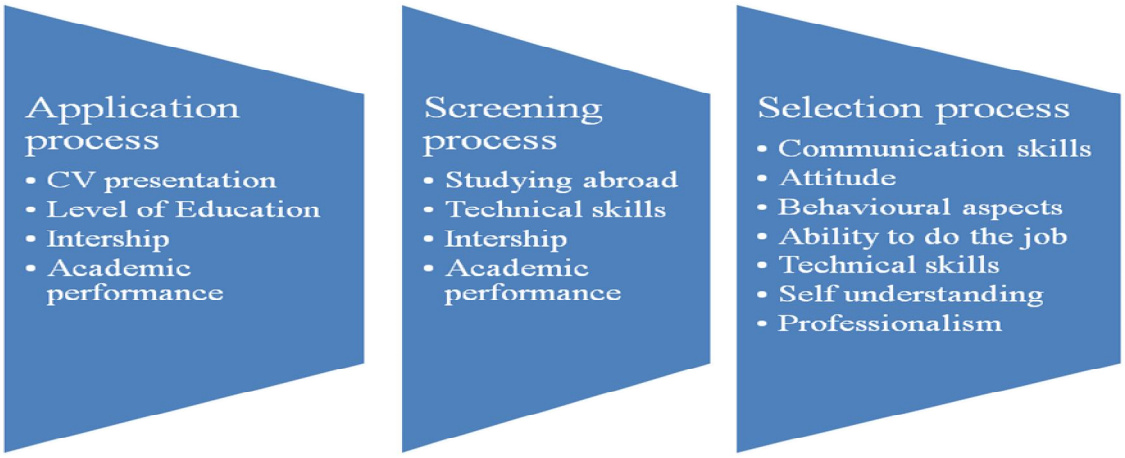
important factor during recruitment process (2.5 percent) and as Canny (2004) commented, employers overlook a lack of qualifications if young adults demonstrate positive attributes.

Figure 9
Factors influencing recruitment decisions



The factors were further categorized into the three recruitment processes as reflected in figure 10. Though an overlap exists on the factors within the recruitment process stages, both factor attributes play a role under each recruitment process.

Figure 10
Factors affecting stages of recruitment process decision



DISCUSSION

The study addressed a research question about how corporate recruiters make recruitment decisions when recruiting new graduates in this era. Specifically, the study addressed the following questions; what recruitment strategies recruiters use to obtain qualified and employable new graduates and the related selection tools and criteria. Study results shows that almost all recruiters receive drop-in CV's and that they use more than one recruitment channel. The most recruitment channels used are graduate recruitment programs, internal recruitment, database of interns and media particularly news papers. According to Keenan, (1995) and Ryan (1996) graduate recruitment program and university career talk were used traditionally to search for potential graduate employees. Indeed, Branine (2008) found out that less than 45 percent of UK graduate employers use graduate recruitment programs compared to 54 percent reported by Keenan (1995). Furthermore, the most popular recruitment channel is internet which in recent study is the third least recruitment channel. Studies to indicate the trend in graduates' recruitment channels in Tanzania are limited and the study suggest this as an area for further research.

Results also show that formal channels are used more than informal channels when recruiting new graduates and these are the recommended to be more appropriate recruitment channels for graduates (Hogarth & Wilson, 2003). Lindeboom, Van Ours & Renes (1994) found that informal contacts and advertisements are successful search channels to bring about matching between those who wanted to change their jobs and vacancies as well as recruitment at higher wages (Mortensen & Vishwanath, 1994). Devins & Hogarth (2005) however argues that when informal methods are used those without contacts in the workplace, unemployed and some inactive groups are unlikely to hear about job opportunities and therefore are disadvantaged. Furthermore, informal strategies limit the diversity of the workforce (Canny, 2004) the advantages that are overcome for when formal channels are used. Though formal recruitment channels leads to a pool of applicants, such channels lead to a perfect match between firms and job applicants (Russo & Gorter, 1996) and this diversify firms' workforce (Canny, 2004).

Study results also indicate that the nature of service determines recruitment channel. While internal recruitment particularly word of mouth is common in recruitment agencies, career talk is common in auditing firms and graduate recruitment program is common in telecoms companies, oil trading companies and mining sector. Advertisement in media is common in government posts and internship common in banks and manufacturing industries. Most banks also have partnerships with some universities. This confirms studies by CIPD (2005) about the nature of business service in relation to the selection of recruitment channel.

Most of the recruiters use more than one screening and selection tool with interview used by all. The commonly used tools in order of application preference are academic performance, subject speciality, interviews and assessment centres. Though limited literature is available on the order of preference of the screening and selection tools, studies by (Stewart & Knowles, 2000; Branine, 2008) show that a range of methods are used during the recruitment and selection process of first entry jobs with interviews predominating. Taylor (2005) recommends for the need of using a variety of selection methods to give the best result and allow individuals to shine in different areas where they may have personal preferences.

Employers during interview process pose questions that address aspects not taught in school both discipline related and unrelated. New graduates are assumed to have no prior work experience and their engagement in employability skills development activities assess their ability to demonstrate their experience. Employers value attributes such as flexibility,

adaptability to work, cultural fit, ability to demonstrate leadership skills and confidence. As Sackett & Lievens (2008) comment, employers look for applicants' qualifications and qualities that enable them to cope with the demands of competitive business environment.

The study therefore established first, communication skills, attitude, CV presentation and behavioural aspects as the top attributes that influence recruiters' recruitment decision during new graduates' recruitment process. Other attributes include technical skills and ability to do the job.

Second, the study grouped the factors into three stages of recruitment process; application, screening and selection processes. Once applicants submit their applications, CV is the major tool used to short list applicants where both soft and hard skills are assessed. Though both skills are further assessed during interview process, soft skills form the basis for selecting best candidates. Lastly, and based on the study findings the following propositions are proposed;

Proposition 1	There is a growing trend towards corporate recruiters attracting applicants from any field of study; new graduates fulfilling selection criteria irrespective of the study discipline are more likely to be recruited by any recruiter.
Proposition 2	Depending on the nature of service, different screening and selection tools are used at different stages of recruitment process. New graduates armed with multiple tools are more likely to be recruited by corporate recruiters compared to graduates armed with fewer tools.
Proposition 3	Interviews assess questions demanding basic technical knowledge, process skills (problem solving skills) and personal qualities (attitude and behavioral aspects). New graduates who can use their informal experience to demonstrate possession of such skills are more likely to be recruited by corporate recruiters.
Proposition 4	Recruitment is the function of application, screening and selection processes. Selection criteria and in particular skills attributes that employers assess during interview process are the major factors that influence recruitment process among recruiters.

Indeed, literature supports that soft skills are of greater importance than technical skills during recruitment process (Evans & Kersh, 2004; Fan, Xiangdong & Junsen, 2005; Heckman & Rubinstein, 2001; Sumner, Bock & Giamartino, 2006).

CONCLUSION

The study adds to the current understanding of recruitment methods, tools and selection criteria recruiters use to recruit new graduates in the Tanzanian context. The methods vary among different sectors and businesses. Most firms use formal recruitment channels to attract new graduates' applicants. Several screening tools and criteria are used before graduates become recruited by specific recruiter. Study findings provide information to graduates on what is expected of them during recruitment process and in particular; recruitment channels available for them, firms where they can secure employment; the nature of skills demanded by each firm; and at what stage of recruitment process a certain criteria and/selection tool need to be adapted. With higher number of graduates released in the labour market, the process of recruitment has become more sophisticated and there is a growing trend towards using aptitude tests to measure personal qualities which was less common a decade ago.

Though recruiters receive large number of job applicants getting the right candidates is challenging and this demands recruiters to use several criteria to get the right candidates. Recruiters' value attributes such as communication skills, attitude, and behavioural aspects the skills that are accumulated both within the core curriculum and in aspects and activities not taught in the core curriculum, which the study categorized as employability skills development program (ESDP) activities. This calls for a need to engage university students on a variety of ESDP activities. These not only develop their work experience, but also enhance the development of soft skills more demanded in the world of work.

The study addressed corporate recruiters in Tanzania most of which use formal recruitment strategies limiting generalization of its findings in other contexts. Additionally, since selection of the sample selection was purposive, some sectors due to the nature of their structure could not allow selection of more than one respondent. The same study can therefore further be conducted to a large sample of employers using quantitative research to allow for the generalization of the study findings. The study however provides the basis for further discussion and a link to further research work on recruitment of new graduates in this era.

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INCORPORATING BUSINESS INTELLIGENCE INTO MARKETING AND MANAGEMENT-RELATED COURSEWORK

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ABSTRACT

Marketing research and decision analysis courses often tend towards the statistical and predictive end of the business intelligence (BI) spectrum. On the other end of the BI spectrum, data querying and reporting – exemplified by online analytical processing (OLAP) tools – are more closely aligned with database management techniques that are not typically taught within marketing or management courses. However, OLAP-focused coursework can be a value-added component of business curricula, especially marketing curricula; and as defined and discussed here, it can be realized via readily available tools – specifically Microsoft Access "Group By" queries and Microsoft Excel "Pivot Tables." Although readily available, such tools generally receive limited attention in the business school classroom.

Experience teaching an OLAP-focused course to hundreds of marketing (as well as logistics and management) majors over several years can offer in-depth insight into its successful implementation, particularly in taking the concepts beyond mere technical tools and into content-relevant techniques and objectives. Perhaps the most telling indication of its importance and success has been the number of students who subsequently have commented on their use of OLAP analysis – primarily Excel Pivot Table analysis – in their jobs. Such comments help to build a case for the use and usefulness of utilizing Microsoft Access and Excel to incorporate OLAP-related techniques into marketing and management-related courses.

INTRODUCTION

Sales and marketing strategies are some of the more significant targets in the push to harness the massive amounts of data being generated and collected in the digital age. As McKinsey & Company put it, "Big Data is the biggest game-changing opportunity for marketing and sales since the Internet went mainstream almost 20 years ago" (McKinsey & Company, 2013, preface). Broadly defined, big data "represents a source for ongoing discovery and analysis" (Arthur, 2013); and a recent survey showed business decision makers favoring big data technologies such as analytical databases, business intelligence tools, and relational databases (McCafferty, 2014). At the intersection of these technologies, an opportunity exists to introduce students to the relevance and power of using relational databases and analytical techniques as they apply to business intelligence, especially with respect to marketing decision making.

Business intelligence (BI) is an umbrella term that encompasses various levels of analysis and decision support, ranging from predictive analytics tools to standard reporting tools (Davenport and Harris, 2007). On one end of the BI spectrum, analytics tools are used primarily to predict what will happen and thus are geared towards statistical modeling and forecasting. On

the other end of the spectrum, reporting tools are used to summarize what has happened and thus are geared towards querying and summarization best exemplified by online analytical processing (OLAP), a "slicing and dicing" technique of grouping and summarizing data.

While many marketing courses (as well as various other business courses) have emphasized the use of statistical tools and techniques, the same cannot be said about OLAP-style querying and summarization. However, not only are OLAP tools very relevant to marketing professionals and to business professionals in general, they also can be explored via readily available software such as Microsoft Access and Excel. This paper defines and discusses an OLAP-focused course and relevant projects that have been employed as a value-added part of a marketing curriculum, with potential extensions to other business majors.

MOVING BEYOND STATISTICS

Many BI-related courses have been and continue to be a part of marketing programs as well as broader business curricula. In particular, courses related to data mining, marketing research, and database marketing are not uncommon. However, these types of BI-related marketing courses often tend towards the statistical and predictive end of the BI spectrum of techniques, as is fitting with statistically-focused data mining coursework. However, the more broadly-defined area of marketing research is concerned with both data collection and data interpretation; yet marketing research courses also tend to emphasize the use of statistical tools and analyses (Stern and Tsang 2002).

Database marketing – a topic that deals with the segmentation and targeting of customers – is perhaps the most relevant to OLAP-style data analysis. But here again, even database marketing courses tend to ignore OLAP in favor of statistical analysis. To that point, one study (Teer, Teer, and Kruck 2007) of database marketing courses showed that nearly all of the surveyed courses included statistical topics (to varying degrees); and at least half of them required statistics and/or marketing research as a prerequisite. Moreover, while all of the surveyed courses covered database creation, only half of them employed a hands-on database project, and none of them included OLAP topics.

OLAP-STYLE DATA SUMMARIZATION

Although OLAP usually refers to specific types of software and/or database tools, it often is generally associated with a "slicing and dicing" style of analysis. OLAP tools address questions pertaining to "how much", "how often", etc. whereby data are grouped and summarized along different dimensions (i.e., variables) of interest. For example, OLAP tools could easily group (e.g., by country) thousands or even millions of individual sales records to quickly summarize (e.g., sum) the total dollar revenue generated per country. In this case, "country" is the selected dimension (variable) of interest, and "sum of revenue" is the selected summary operation and summary measure of interest. While summing the revenue per country may sound simplistic, it is the ease with which summarizations can be generated, as well as the power to do so even when dealing with large amounts of data. Such analyses also can be easily filtered by specific values (e.g., by date, by product, etc.).

In the general sense of slicing and dicing, data can be summarized via various methods and with various levels of complexity, ranging from system-generated standard reports in which the business analyst (or student) need not understand the underlying mechanics; to a user-controlled manual manipulation of the data whereby the analyst must understand the structures of the data as well as the workings of the tools used to retrieve it. This range of summarization methods is exemplified by dashboards on one end and relational databases on the other.

Simple: Dashboards and Pre-defined Reports

OLAP-style data summarization can be simplified when enabled by a dashboard. For example, customer relationship management systems (such as Salesforce.com) allow users to easily summarize sales and marketing-related activity (e.g., sum the revenue generated per sales lead source). Such systems utilize dashboards with predefined queries whereby data summaries and reports are generated simply by selecting variables and values of interest. In general, dashboards allow for the structure of the database and the mechanics of the queries to be treated as a "black box" that fully manages (and thus hides) the summarization process. In exchange for simplicity, dashboards may have some limitations in terms of the customizability and/or range of possible analyses and reports.

Complex: Databases and User-Defined, Multi-Table Queries

Conversely, using queries to generate OLAP-style summarizations can be a less limiting but more complex task, often requiring a greater level of knowledge and skills. Relational database queries, for example, often rely on some understanding of multi-table database concepts. While this knowledge and skill set may be somewhat difficult to achieve for a non-technical business analyst, database mastery can help to produce valuable summary information. With respect to Microsoft Access, for example, the complexity of "Group By" queries may discourage their use; but they are quite value-added as they allow for an OLAP-style summarization of the data. By aggregating and summarizing groups of records, such queries can readily and flexibly provide summaries (e.g., total revenue or number of orders) that reveal performance along some variable of interest (e.g., customers, products, brands, stores, time periods, etc.).

Powerfully Simple: Flat File Spreadsheets and OLAP-Style Pivoting

With a level of complexity between dashboards and relational databases, single-table "flat" files also can utilize OLAP tools. For example, similar to "Group By" queries but reflecting many of the graphical interface features of leading OLAP tools, Microsoft Excel's Pivot Tables allow for true-to-form OLAP-style summarization. However, unlike relational database queries, Pivot Table analyses usually are conducted on data in a single spreadsheet (rather than in multiple tables); and as such, Pivot Table analyses do not require an in-depth understanding of multi-table querying techniques. Despite the seemingly simplistic structure of the data, the latest versions of Excel can handle more than a million rows; and Pivot Table

analyses can easily and powerfully group thousands of records to produce summarizations (as well as charts and "drill-downs") along multiple dimensions of the data.

IMPLEMENTING AN OLAP-FOCUSED MARKETING COURSE AND/OR PROJECTS

An OLAP-focused course and/or OLAP projects can be positioned as a valuable addition to marketing curricula, even in those that already include data mining, marketing research, or database marketing courses. OLAP-focused coursework can employ specific tools such as Powerplay and MicroStrategy Web (Hart et al., 2007) and can even utilize web portals (such as the Teradata University Network) designed for data warehousing and analysis projects (Jukic and Gray, 2008). However, educators can take advantage of readily available data and more familiar tools in the forms of Microsoft Access (with a focus on "Group By" queries) and Microsoft Excel (with a focus on Pivot Tables) as a basis for exploring marketing questions and analyses at different levels of BI complexity. The use and usefulness of these tools are discussed alongside relevant projects and learning points.

Relational Databases and "Group By" Queries

Prior to proceeding into OLAP concepts, coursework should begin with a review of relational databases and querying. Sample databases such as Northwind (included with Microsoft Access) or Adventure Works (associated with Microsoft SQL Server) provide rich and relevant data sets that can be used as the foundation for an extensive review as well as for an in depth project. The Northwind database mimics customer order data and includes the types of tables shown in Figure 1 (note that a "Detail" record represents a single line item of an order).

Figure 1
Northwind Database – Selected Tables and Fields

Table	Partial Listing of Fields
Customer	Customer ID, Name, Address, City, State, Zip Code
Order	Order#, Date, Freight Charge
Detail	Order#, Product ID, Quantity Ordered, Price Paid
Product	Product ID, Name, Category, List Price, Quantity in Stock

The database introduction should proceed to coverage of "Group By" queries, which provide a mechanism for analyzing and summarizing sales data beyond simple query techniques. While "Group By" queries do not receive regular attention in the classroom, they are a powerful feature of Microsoft Access (and other relational databases). Figure 2 outlines an example of a "Group By" query based on common values in the Category field. Each product belongs to just one category; so for each line item (i.e., Detail record), the revenues (price x quantity) for the products are grouped and tallied into the related categories. For example, if the Product table shows that Product ID 1 (Chai Tea) belongs to the Beverage category, then when Product ID 1 appears on a line item, its price x quantity is added to the Beverage group. Using analyses similar to this, a project can include various OLAP-style groupings and summarizations (see Figure 3).

Figure 2
"Group By" Query: Sum of Revenue per Category

QUERY

Field:	[1]Category	[2]Revenue: [Price] * [Quantity]
Table:	[1]Product	[2]Detail
Total:	[1]Group By	[2]Sum
Sort:		[2]Descending

RESULT

Category	Revenue
Beverages	286,526
Dairy Products	251,330
Meat/Poultry	178,188
Confections	177,099
Produce	105,268

[1]Grouping By the Category field from the Product table,
[2]Sum the Price*Quantity fields from the Detail table, and sort Descending by the sum

As outlined in Figure 3, a project based on the Northwind database and an OLAP-style analysis of sales data can be broken into three areas: an analysis of the products (not product sales) using only the Product table; an analysis of the customers (not their sales) using only the Customer table; and an analysis of the sales using various tables. Sales analyses can be broken into overall sales (using only the Order table); product sales (using the Product and Detail tables); and customer sales (primarily using the Customer and Order tables).

Figure 3
Sample "Group By" Project of Northwind Products, Customers, and Sales

Describe the Products
Using the Product table, list the Count (i.e., number) of products carried per category. Other Summary measures can include: Average (as well as Max and Min) list prices; Average and Sum of Quantities in Stock.

Describe the Customers
Using the Customer table, list the Count of (i.e., number of) customers by their characteristics (e.g., number of customers by country, by region, etc.).

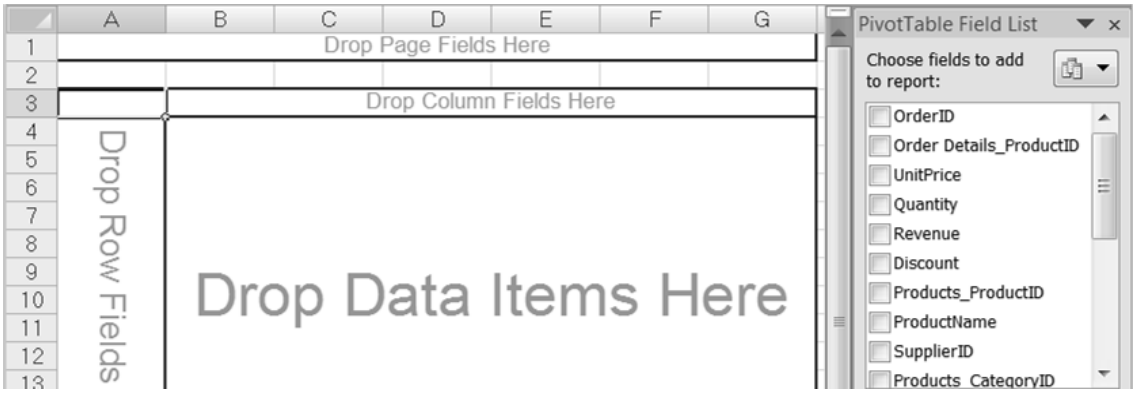
Describe the Sales
- Using the Order and Detail tables, list the total revenue (Price x Quantity) over time; and using just the Order table (and a Count of the records in the Order table), list the number of orders over time. The Year, Month, and Day of Week can be identified and used as grouping variables.
- Using the Product and Detail tables, list the total revenue and Quantity Sold by product, category, and other product characteristics (e.g., price). Sort the results (as appropriate) so as to show best-sellers and worst-sellers.
- Using Customer+Order+Detail and Customer+Order respectively, show the total revenue and number of orders by customer and customer characteristics (e.g., country, region, etc.). Sort for best and worst customers, countries, etc.

Drill Down into the Sales
- Using the Best Customers query (from above) within a query of the other Northwind tables, list the revenue and quantity of the products purchased by the best customers. Use criteria of the top 10% of customers. Sort the results to show the best and worst sellers; and compare this list to the overall best and worst sellers. Do the same for the products purchased by the worst customers.
- Using the Best Products query (from above) within a query of the Product and Detail tables, list the revenue and quantity of the products purchased along with the best selling products. Use criteria of the top 10% of products. Sort the results to show the best and worst.

Spreadsheet "Pivot Table" Analyses

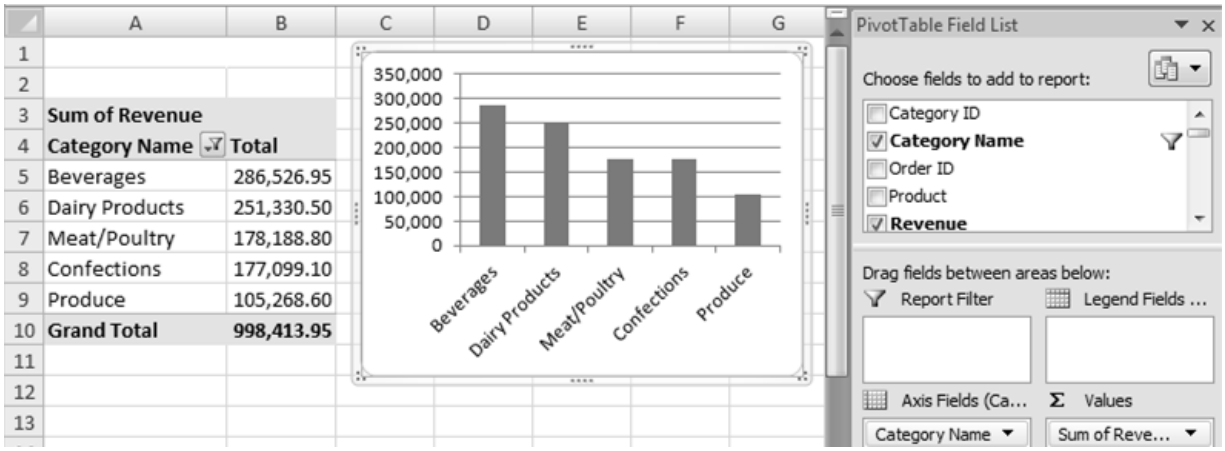
OLAP-style analyses also can be achieved via Excel Pivot Tables, the interface of which (see Figure 4) does not require the same level of detailed construction as "Group By" queries. After data are exported into Excel, it is a simple matter of inserting a Pivot Table upon the data, with the column headings becoming a drag and drop field list (as shown on the right of the figure). Note that a field for Revenue appears in the list, due to a new column (with the heading "Revenue") being inserted into the spreadsheet data sheet in order to calculate Price x Quantity.

Figure 4
Pivot Table Mechanics



Pivot Tables can produce the same results as "Group By" queries, and thus could be used to conduct the same analyses as outlined in the Northwind "Group By" project. For example, Figure 5 shows how the Revenue per Category query can be duplicated in a Pivot Table simply by clicking on the Category and Revenue fields in the field list, thus transferring them to the Row and Data areas respectively. In addition, a Pivot Chart can be generated with another click.

Figure 5
Pivot Table: Sum of Revenue per Category



While they share the same underlying technique, Pivot Tables do hold some advantages over "Group By" queries that go beyond simplicity of interface. In addition to being well equipped to create charts, Pivot tables also have an ready grouping feature for analyzing performance by price (or by any numeric variable). With this feature, prices can be easily grouped into ranges (e.g., 0-10, 11-20, etc.), making it more practical to analyze them as a variable of interest. Such ranges can be important when the variable could take on a multitude of values and/or inconsistent increments. In the case of a smaller number of values, the ranges may not be needed. For example, Figure 6 shows the total revenue by price range for all dairy products (which can have a multitude of different prices), as well as the total revenue per exact price for queso, a particular dairy product (that has just a few changes in price).

Figure 6
Price Analyses of All Dairy Products and of Queso

Dairy Revenue per Price Range

Sum of Revenue Unit Price	Total
0-10	1,714
10-20	27,097
20-30	53,275
30-40	92,950
40-50	23,936
Grand Total	**251,331**

Queso Revenue per Price

Sum of Revenue Unit Price	Total
14.00	168
16.80	3,360
21.00	10,374
Grand Total	**13,902**

The ability to analyze the effects of pricing makes for a value-added focus of a project. While a pricing analysis project could use the Northwind data after being exported into Excel, a data set of weekly sales results with fixed weekly pricing can provide an interesting basis for the project. As such, a grocery store data set was used in the example project outlined in Figure 7.

Figure 7
Sample "Pivot" Project of Weekly Pricing and Product Sales

Describe the Products
Describe the products carried along various dimensions (consider all fields as potential "group by's" to put in the Row area, including retail price). Note that you must first "remove duplicates" so that you have only 1 record per each product carried.

Describe the Sales
Describe the products sold along various "group by" dimensions (consider all fields as potential "group by's" to put in the row area, including selling price). Start with sales over time,

Price Analyze the Best Selling Product
Start with a general pricing analysis, showing units and profits generated per price range for products in the same categories as the best seller; and then describe the units and profits per the prices of the best seller. When analyzing each specific price, filter by the # weeks a price was used and only include prices that were used more than 3 times). Also consider the difference between average and sum based on the fact that some prices are used more than others.

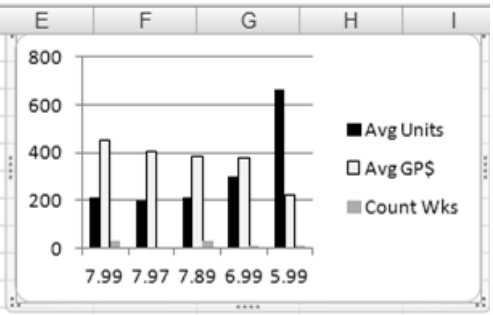
DISCUSSION

Price analysis has significant relevance to various business majors, ranging from management, marketing and logistics to accounting, economics, and finance; and the ability to explore the effects of price changes can help students to understand the implications of pricing. For example, management and logistics students have found pricing analysis and concepts to be of particular relevance to purchasing-related internships and tasks. There are various learning points related to pricing that can be reinforced via data analysis (see Figure 8):

1. Pricing can affect units sold as well as profits, sometimes in an opposing manner. Sometimes the goal is to move units and/or create a loss leader rather than maximize profits.
2. The effect of different prices on performance is influenced by how many times and when specific prices were used. As such, performance often needs to be measured with averages (as totals are obviously higher when certain prices are used more than others). In addition, prices used just once or twice are greatly influenced by when they are used (e.g., during holidays, etc.) and thus should be excluded and/or considered with less significance.
3. Price range charts should not always be sorted on performance as the price ranges can (and will likely) become "out of sequence," thus potentially hiding any pricing trends, particularly when a large number of ranges are considered. The same is true for sorting when dates are used so as not to resequence chronological data and thus potentially mask seasonal and/or long term trends.

Figure 8
Units Sold vs. Gross Profit per Specific Prices of a Specific Product
(Excluding Prices Used Less Than 4 Weeks)

	A	B	C	D
1	UPC	######		
2				
3		Values		
4	Price	Avg Units	Avg GP$	Count Wks
5	7.99	211	450	31
6	7.97	197	406	6
7	7.89	215	384	32
8	6.99	298	376	8
9	5.99	667	223	8
10	Grand T	262	394	85



Additional important learning points are outlined below.

1. "Sales" can refer to various measures, including: number of orders, dollar amount of orders, quantity sold, and product revenue (i.e., price paid x quantity sold). The difference between number of orders and dollar amount of orders provides a reference for teaching students about recency, frequency, and monetary value (RFM). Here, frequency is determined by counting the number of orders per customer (via a count of records in the Order table); whereas monetary value is determined by summing order totals per customer.
2. When dealing with product-specific revenue (i.e., sales per product or product-related dimensions), the Detail records (i.e., line items) are relevant (in order to look at quantity sold and/or price x quantity). The same is not always true when dealing with customer-specific revenue (i.e., sales per customer or customer-related dimensions). For example, if the Order records include total dollar amount figures, the Detail records are not needed (and in fact the inclusion of the Detail table in this instance could create incorrect results – see next point).

3. When dealing with product-specific revenue (i.e., sales per product or product-related dimensions), the Detail records (i.e., line items) are relevant (in order to look at quantity sold and/or price x quantity). The same is not always true when dealing with customer-specific revenue (i.e., sales per customer or customer-related dimensions). For example, if the Order records include total dollar amount figures, the Detail records are not needed (and in fact the inclusion of the Detail table in this instance could create incorrect results – see next point).
4. Aside from counting records, summary functions (e.g., average, sum, etc.) can be performed on any numeric variable. In addition, all summarizations can be categorized or grouped by any and all remaining fields, including numeric fields (especially with the use of ranges). In the case of numeric or date fields, additional grouping fields can be created via functions. For example, date functions such as Year, Month, or Day of Week can be used as grouping fields to look for short term and long term trends. Ultimately, the consideration and use of all summary functions and all grouping variables can be emphasized via the use of a rubric (see Figure 9).

Figure 9
Sample Project Rubric/Assessment Objectives

- How many variables/dimensions were used to describe the products; and was this done correctly?
- How many variables/dimensions were used to describe the customers; and did you do so correctly?
- How many variables/dimensions were used to describe the overall sales; and did you do so correctly?
- How many variables/dimensions were used to describe the product sales; and did you do so correctly?
- How many variables/dimensions were used to describe the customer sales; and did you do so correctly?
- How many measures were used to describe sales performance (e.g, # orders vs. $ revenue vs. # units, etc).?
- How many variables were analyzed with respect to the best customers (e.g., what are they purchasing, etc.)?
- How many variables were analyzed with respect to the best selling products (e.g., who is purchasing them, etc.)?

CONCLUSION

With accessible tools and data (in the form of Microsoft Access and Excel), an OLAP-focused course and/or projects can be readily available to any business educator. After several years of experience with such a course taken by hundreds of marketing (as well as management and logistics) students, perhaps the most telling indication of its importance and success has been the number of students who have commented on their subsequent use of OLAP analysis – particularly Pivot Table analysis – in their jobs. Moreover, students also have commented on how their managers were extremely impressed with their ability to analyze sales and marketing data with such insight, going so far as to bring one intern to see the president of the company to show him the analysis he had done. Such comments argue for the consideration of the use and usefulness of Microsoft Access and Excel as educational OLAP tools, and the fit and role of such tools in marketing curricula and even in the broader business curriculum.

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THE EFFECTS OF LEADERSHIP AND HIGH-STAKES TESTING ON TEACHER RETENTION

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ABSTRACT

The purpose of this study was to examine whether principal leadership behaviors and the demands of high-stakes testing had an impact on teachers' intent to remain in the teaching profession. Perceptions of teachers concerning the contributing factors that led to their intent to remain in the teaching profession were also examined. Factors included in this study were examined in an effort to gain insight into into factors that lead to teacher job satisfaction.

Both quantitative and qualitative methodologies were employed in an effort to gather data. The survey instrument was distributed to K-12 public school teachers in a southern state. Participants in the study taught at elementary, middle, and high school levels. The analysis of the data for the qualitative component was consistent with data collected through the quantitative portion of the study. Both the quantitative and qualitative data supported the relevance of principal leadership on a teachers' intent to remain in the profession. However, when teachers responded to open-ended questions relative to principal leadership some responses varied compared to those provided in the quantitative measure with respect to principal support. Additionally, qualitative data indicated three things that most influenced teachers' decision to remain in the profession: student success, subject matter taught, and the art of teaching. When asked which factors contributed most to teachers leaving the profession, teachers reported; lack of administrative support, teacher workload, and student discipline. Additional self- reported factors that were identified as being problematic for teachers were excessive paperwork and pressures of state-testing.

INTRODUCTION

The purpose of this study was to examine whether principal leadership behaviors and the demands of high-stakes testing had an impact on teachers' intent to remain in the teaching profession. Teacher perceptions of what contributed to their intent to remain in the teaching profession, were also examined. First, the researchers examined whether principal leadership styles and behaviors affected teachers' intent to remain in the teaching profession. Second, the researchers examined the levels of teacher job satisfaction between state-measured subject area teachers such as those who teach reading, math, and English and those teachers in non-state-measured subject areas such as science, history, technology, and elective classes (e.g., band, choir, art). Third, the researchers examined whether a relationship existed between teacher job satisfaction and teacher mentoring with regard to teachers' intent to remain in the teaching

profession. Also examined were the leading self-reported factors that contributed to teachers' intent to remain in or leave the teaching profession.

Research suggests that at a time when teachers must carefully examine and master the roles and responsibilities of their profession to meet the needs of students as well as the demands of administrators and policy makers, strains experienced by teachers are resulting in teacher turnover (Valli & Buese, 2007). For some educators, these strains may be a result of high-stakes testing and stressors that are associated with test preparation, procedures, and accountability (Hahs-Vaughn & Scherff, 2008). Such accountability has led to standardization and high-stakes assessment in schools, which is primarily due to the widespread movement of government-regulated mandates in the United States (Rubin, 2011). This movement, which resulted in the No Child Left Behind Act (NCLB) of 2001, requires teachers of English/Language Arts (ELA) to administer high-stakes assessments in both reading and writing. According to Rubin (2011) teachers of ELA have become victimized due to the increased expectations and regulations placed on them above those placed on teachers in other subject areas. As a result, "for teachers today, both in ELA and across the curriculum, NCLB is harming teachers, their practice and their long-term commitment to the teaching profession" (Rubin, 2011, p. 407)

While many teachers claim that responsibilities and workload have increased due to standardized testing (Valli & Buese, 2007), other educators state they merely cannot keep up with the demands of the profession, disrespect from students, an abundance of paperwork, and the lack of support received from administrators both at the school and district levels (Haberman, 2005). Leithwood and McAdie (2007) suggest that when teachers perceive their workload to be imbalanced compared to that of their peers, teacher stress is increased, teacher morale is weakened, and teacher commitment to schools becomes a concern.

REVIEW OF THE LITERATURE

Theoretical Foundation

With accountability of NCLB at an all-time high, critics believe that school leaders face tremendous barriers in their efforts to reduce achievement gaps and retain highly-qualified teachers (Smith & Kovacs, 2011). With the emergence of education reform, teachers are held to higher standards and accountability, and student achievement remains at the forefront of educational priorities (Spradlin & Prendergast, 2006).

Because of the focus on higher accountability, administrators are taking desperate measures to insure that their schools are meeting growth and expectations in the eyes of stakeholders and policy makers (Farber, 2010).

Farber (2010) believes that although a majority of schools are meeting or exceeding expectations of accountability, these expectations come at the expense of teachers' time, health, and commitment to the profession. With the continuous pressure to increase student achievement particularly for tested-subject area teachers along with the lack of administrative support, teachers may feel greater stress in carrying out their responsibilities. According to the MetLife Survey of the American Teacher (2013), as a result of this, teachers are citing lower levels of teacher satisfaction, thus contributing to attrition in schools. Findings from the MetLife Survey of the

American Teacher (2013) show a 15% decrease in teacher satisfaction since 2009 and a 12% increase in teachers who say they are likely to leave the profession.

Two-Factor Theory

In 1959, Frederick Herzberg developed a theory of motivation known as the Two- Factor Theory, also referred to as the Motivation-Hygiene Theory. This theory was derived from a study of events pertaining to the lives of engineers and accountants (Herzberg, 1987) where participants were asked to report their most satisfying and most dissatisfying work experiences in an effort to the determine what leads to job satisfaction (Johnston, 1990). Since the conception of this theory, claimed Herzberg (1987), many studies have been conducted based on the Two-Factor Theory. These studies focused on an extensive range of populations, thus making the Two-Factor Theory one of the most duplicated studies in the field of job attitudes (Herzberg, 1987). According to Dartey- Baah (2011), there are many theories associated with motivation that influence the way establishments manage employees in an effort to motivate them. Because motivating people can be complex, organizations find it difficult to motivate employees for effective performance (Dartey-Baah, 2011).

In examining theories pertaining to motivation of employees, Herzberg's research presented factors involved in producing job satisfaction or motivation for workers. The Two-Factor Theory of Motivation provides an explanation of job factors that are either satisfying or dissatisfying for employees (Dartey-Baah, 2011). Contrary to satisfaction factors were the factors that created dissatisfaction. Since there were two factors involved, Herzberg clarified his concept by stating that job satisfaction is not opposite of job dissatisfaction. According to Herzberg (1987), the opposite of job satisfaction is no job satisfaction, and the opposite of job dissatisfaction is no job satisfaction (Dartey- Baah, 2011). Herzberg believed that significant work leads to job satisfaction, and the factors that lead to job satisfaction are completely different from those factors that lead to job dissatisfaction.

The motivational-hygiene model states that when employees are provided with challenging yet enjoyable work that allows the employee to achieve great success, then employee motivation is accomplished (Dartey-Baah, 2011). Similar to Maslow's Hierarchy of Needs, Herzberg believed that humans were involved with two types of needs. In assessing the needs of people, one set of needs stems from basic biological drives. These needs come from "humankind's animal nature-the built-in drive to avoid pain from the environment" plus the drives that become accustomed to the basic biological needs (Herzberg, 1987, p. 113). Herzberg compared this to a basic need such as hunger. He believed that hunger motivates a person to earn money; therefore, money is a specific drive for that person. When a person fulfills these basic needs and considers work to be significant, according to Herzberg, this can lead to job satisfaction.

The second set of needs, according to Herzberg (1987), "relates to that unique human characteristic, the ability to achieve," (p. 113) and when people experience achievement, they experience psychological growth. Herzberg indicated that the stimuli for the growth needs are tasks that promote growth. For example, in the industrial setting motivation for growth was job contentment (Herzberg, 1987). According to Herzberg et al. (1959), there are several job-attitude factors that are considered motivator factors, and these factors are considered to be intrinsic to the

job. Such factors include recognition, achievement, possibility of growth, advancement, responsibility, and work itself. Dartey- Baah (2011) asserted that these factors include the physiological need for growth and recognition, and they contribute to motivation in workers that produces job performance (Herzberg, 1987). Because of the level of motivation that comes with these factors, they are referred to as satisfiers (Dartey-Baah, 2011).

According to Herzberg et al. (1959), of the aforementioned intrinsic factors, the contributing factor leading to job satisfaction is the achievement factor. Herzberg et al. (1959) found that when workers achieve success, their behavior or performance contributes to satisfaction in the workplace and positive attitudes among other workers. This theory is guided by concepts in the teaching profession which relate to teacher satisfaction. Leithwood and McAdie (2007) avowed that to increase teacher satisfaction and contribute to internal satisfaction, teachers should be provided time to work in teams, prepare for classroom instruction, collaborate with colleagues, participate in team decision making, and have access to ongoing professional development.

Teacher Mentoring

One solution to retaining teachers according to Ingersoll and Smith (2003) is to provide teachers with mentors, especially those teachers who are new to the profession. Upon entering the teaching profession, many teachers walk into a classroom with little or no support from colleagues and/or administration, and the key to novice teacher support begins with the building principal (Flynt & Morton, 2009). What most administrators may fail to realize is that many teachers are sinking. Kopkowski (2008) cited several reasons for teachers leaving the profession. These reasons include little support from administration and parents, testing and accountability as mandated by federal legislation such as NCLB (2001), lack of respect, inadequate pay, and high numbers of student discipline and infractions.

In their research on mentoring, Ingersoll and Strong (2011) identified mentoring programs in various schools that consisted of numerous ways to assist new teachers.

Methods included assigning veteran teachers to novice teachers at the beginning of the school year and organizing highly structured programs that include frequent meetings between mentors and mentees that span over two years' time. Additionally, it was noted that some schools required mentor programs to all newly hired teachers regardless of teaching experience as a strategy to acquaint teachers with the practices in that particular school. In their research, Ingersoll and Strong concluded that, for the most part, schools focused solely on novice teachers in the area of mentoring with little or no support provided to those teachers with experience in the field.

Having support and effective mentoring from veteran teachers is critical to novice teachers' success and their intent to remain in the teaching profession (Scherer, 2012). In their study on veteran teachers as mentors, Hanson and Moir (2008) identified four areas in which mentoring made a substantial impact on the continuing professional practice of veteran teachers as well as school districts in which mentoring was utilized effectively.

These areas include the practice of mentoring to broaden teachers' perspectives of the profession and themselves, mentoring to have a profound impact on pedagogy and student learning, mentoring to develop growth for veteran teachers and promote leadership among teachers, and the mentoring process to support good, quality teaching practices among mentors

and mentees; moreover, mentors feel recharged and learn new practices from their mentees that can be used in their own classrooms (Hanson & Moir, 2008).

Teacher Retention and Attrition

According to the National Commission on Teaching and America's Future (NCTAF, 2007), because teacher attrition is a primary cause of the U. S. teacher shortage, communities, stakeholders, and administrators should begin recognizing teachers for their talent and effort in the classroom (Kaback, 2006). Since educational reform became more influential in the world of education, teacher expectations have been on the rise (Farber, 2010). This comes at a time when schools in the U. S. are faced with teacher shortages because many teachers feel as though they cannot keep up with the demands of the job. With the growing needs of teachers and the ongoing drive for test results in the classroom, now is the time for school leaders to understand the causes of teacher attrition (Feng, 2005). Furthermore, it is imperative that school leaders address attrition in public schools if they want to meet the guidelines established by NCLB legislation (McKinney et al., 2007).

In their study of high-poverty schools, McKinney, Berry, Dickerson, & Campbell- Whately (2007) found that schools with greater needs usually have a higher turnover rate than other schools. This is partly due to the fact that teachers feel unprepared to accommodate the academic and behavioral needs of students in high-poverty areas (McKinney et al., 2007). In Ingersoll's (2004) report on teacher turnover in high-poverty schools and data from the Teacher Follow-up survey conducted by the National Center for Education Statistics, the following factors contributed to teacher turnover. Retirement accounted for 14% to 25%, family and personal reasons accounted for 36%-44%, school staffing issues such as lay-offs, terminations, involuntary reassignments, and school closings accounted for 40%, and nearly 40% of teachers left schools due to job dissatisfaction. Those teachers who left because of job dissatisfaction left for better opportunities according to Ingersoll.

In Ingersoll's analysis of teacher surveys, several factors were identified that schools could use in an effort to retain teachers. Among those factors, better compensation was the most often cited incentive with measures for better school discipline, smaller class sizes, parental involvement, and more authority distributed among teachers. Contrary to most research on induction and mentoring as a method for retaining teachers, Ingersoll (2004) found that only 16.1% of teachers who left rural areas of high poverty and only 8.8% of teachers who left urban areas of high poverty claimed that induction and mentoring was beneficial to teacher retention.

Teacher Job Satisfaction

If "education is the backbone of a nation" (Fatima, 2012, p. 260) and teachers are the chief contributors to the structure of the educational system, then job satisfaction is an important factor in the retention of teachers. Job satisfaction for teachers is important if policy makers and leaders want students to demonstrate progress in meeting the expectations of school reform (Knox & Anfara, 2013). According to a recent MetLife survey of teachers, only 39% of teachers are very satisfied with their jobs, down from 62% in 2008 (MetLife Survey of the American Teacher, 2013).

This statistic clearly indicates that teachers are experiencing increased difficulties in their profession such as the demands to improve student outcomes on state-mandated tests, therefore, contributing to more dissatisfaction in the teaching profession (Moore, 2012).

Fatima (2012) further declared that in order for teachers to become effective in the classroom, they must first be satisfied with their job. If teachers are satisfied with their jobs, stated Fatima, the school as a whole will benefit from their effectiveness.

Colleagues will gain from collaborative working experiences with satisfied teachers, and students will likely produce academic gains through the exposure of positive teachers explained Fatima in his research involving satisfaction of secondary school teachers.

According to research conducted through the MetLife Survey of the American Teacher (2013), effective teachers account for 33% of student achievement gains. Therefore, it is conceivable for leaders and policy makers to address key factors that may contribute to teacher satisfaction in an effort to retain teachers in U. S. schools.

In Knox and Anfara's (2013) research on understanding job satisfaction, they reported that job satisfaction is the most frequently studied variable in organizational behavior. The primary reason for it being examined and studied so closely is that behavior among employees is a contributing factor to whether a business or organization is successful or not. Without satisfied employees, businesses and organizations cannot produce necessary gains, and in the world of education, it is crucial that teachers and leaders produce those gains in order to satisfy requirements of NCLB (2001).

METHODOLOGY

Research Questions

The following research questions were used to to guide this research:

1. Is there a relationship between principal leadership styles and behaviors and teachers' intent to remain in the teaching profession?
2. Is there a difference in the levels of teacher job satisfaction between teachers of state-measured subject areas and teachers of non-state-measured subject areas?
3. Is there a relationship between teacher job satisfaction, teacher morale, and teacher mentoring programs and teachers' intent to remain in the teaching profession?
4. Is there a difference between self-reported factors that contribute to teachers' intent to remain or leave the teaching profession?

HYPOTHESES

H1: There is a statistically significant relationship between principal leadership styles and teacher morale, teacher satisfaction, and teachers' intent to remain or leave the teaching profession.

H2: There is a statistically significant difference between state-measured subject area teachers' and non-state-measured subject area teachers' intent to remain in the profession.

Research Design

Quantitative methodology with a qualitative component was utilized to gather data for this study. The qualitative component consisted of Five self-reported qualitative factors. Demographical information was also collected and analyzed in order to compare gender, age, years of teaching experience, type of school setting, teacher certifications, and teaching position.

Participants and Procedures

For the purpose of this study a convenience sample was taken. Eight superintendents of school districts located in the coastal region of a southern state were contacted for permission to conduct the study in their districts. Of the eight districts invited, five superintendents granted permission to conduct the study within their districts. Upon obtaining permission, principals from each individual school were contacted in order to seek permission to conduct the study within their respective schools. Principals were provided with a cover letter explaining the purpose and details of the study. Upon receiving permission from principals, survey instruments were delivered to the schools.

The survey was distributed to 501 teachers of state-measured subject areas and teachers of non-state-measured subject areas in K-12 public schools in five school districts located in the coastal region of a southern state. Of the 501 surveys distributed, 212 teachers completed and returned the survey, yielding a return rate of 42.3%. The sample included teachers from the elementary, middle, and high school levels.

Approximately 23% of the respondents in the study were male teachers, and 77% were female teachers. The largest group surveyed in the study were between the ages of 30-39, and the largest number of respondents were high school teachers at 58.3%. Fifty-seven percent of the teachers surveyed in the study reported having between 6-20 years of teaching experience. See Table 1.

Instrumentation

The Teacher Retention Survey Instrument was divided into seven sections. The first section was identified as Teacher Characteristics. This section consisted of demographic questions regarding age, gender, years in the teaching experience, school setting, level of education, certifications, teaching position, and a question addressing choice of profession. The second section of the survey, which encompassed five areas related to working environment factors included the following sections: principal leadership behaviors, teacher intention, teacher job satisfaction, teacher mentoring, and intrinsic motivators. These sections of the survey instrument used five-point Likert-type questions ranging from strongly disagree to strongly agree.

The principal leadership behaviors section was used to gather data on teachers' perceptions of the administration at their schools. The purpose of this section was to determined whether teachers felt supported by their administration and whether the level of administrative support impacted teacher attrition. Additionally, this section of the instrument aligned closely with the first

research question regarding the relationship between principal leadership styles and behaviors and a teachers' intent to remain in the teaching profession.

The third section focused on teachers' intention to remain in the profession or leave the profession. This section also examined teachers' decision to remain in the profession, but to pursue a career in school administration. Data were gathered to determine whether teachers may be transitioning into school administration for the purpose of earning a higher salary or to escape the frustration of being a classroom teacher. Data from this section were used to test the hypotheses identified in the study.

Section four of the survey instrument examined teacher job satisfaction. This area of the survey encompassed teacher perceptions and their feelings about parents, students, fellow colleagues, and administrators. Other survey items addressed included job recognition, salary, burnout, subject-area contentment, hours in a work-week, high-stakes testing, decision making, freedom of expression, and morale among teachers. These questions were used to examine teacher frustrations and what factors lead to dissatisfaction in the teaching profession.

The fifth section was entitled Teacher Mentoring. This section examined whether teachers felt supported in their daily efforts. Mentoring or the lack thereof could impact teachers' intent to remain in the teaching profession. This was especially important for those teachers who were new to the profession or new to a particular school. Research shows that novice teachers generally leave within the first five years due to lack of support by colleagues and administrators; therefore, schools must provide support to new teachers in order to encourage their growth and success as teachers (Ingersoll, 2012).

The final section of the Likert-type portion of the survey entitled Intrinsic Motivators explored potential motivators for teachers. Data gathered from this section provided insight into factors that could potentially lead to increased motivation among teachers. Motivators included salary, the rewards of teaching children, performance challenges, and rewards and accolades provided by administrators.

The final section of the instrument, entitled Self-Reported Factors, included five open-ended questions developed in an effort to gain critical information on teachers' intent to remain in the teaching profession. Questions included which factors contributed to teachers' decisions to remain or leave the teaching profession, whether teachers had ever left the teaching profession, reasons for becoming a teacher, and the three contributing factors that bothered teachers most about the teaching profession. From this qualitative section, data were compiled and reoccurring themes were examined. This section of the instrument was aligned to research question number four, and assisted in determining how teachers feel about the teaching profession.

RESULTS

The purpose of this study was to examine the relationship between principal leadership styles and teacher morale, teacher satisfaction, and teachers' intent to remain or leave the teaching profession as well as whether state-measured subject area teachers or non-state-measured subject area teachers were more likely to remain in the profession.. Perceptions of teachers concerning the contributing factors that led to their intent to remain in the teaching profession were also examined. A Pearson Correlation was used to examine Research Question 1 based on a .05 level of

significance. A t-test was used to examine Research Question 2 where means were compared and a *p*-value of .05 was used to indicate the significance level. A Simple Regression was used to examine Research Question 3 based on a *p*-value of .05.

Descriptive Statistics

Two hundred and twelve K-12 public school teachers in a southern state participated in this study. Demographic data are presented in Table 1. The gender distribution consisted of 22.6% male (n=48) and 77.4% female (n=164). The ages among the surveyed teachers were quite similar in three of the categories, with the highest number of respondents (34%) being between the ages of 30-39. The category with the lowest number of respondents was those ages 20-29 (15.6%). Of the 212 teachers surveyed, the largest percentage of teachers reported between 11-20 years of experience (36.3%). The smallest group consisted of those teachers with 30+ years in the teaching profession (4.7%).

Table 1

Teacher Demographics (N=212)

Variable	Frequency	Percentage
Gender		
Male	48	22.6
Female	164	77.4
Age		
20-29	33	15.6
30-39	72	34.0
40-49	56	26.4
50+	51	24.1
Teaching Experience		
1-5	57	26.9
6-10	45	21.2
11-20	77	36.3
21-30	23	10.8
30+	10	4.7

Table 2 illustrates the type of school setting teachers worked in (elementary school, middle school, or high school), education, and types of certification. Of the teachers surveyed 50.5% reported holding a bachelor's degree (n=107) compared 46.7% who reported holding a master's degree (n=99). Nine percent of the respondents reported holding a doctoral degree (n=2).

Upon examining whether teachers were highly qualified or not to teach the subject they were currently teaching, 93.4% (n=198) reported that they were highly qualified while 6.6% (n=14) reported that they were not highly qualified to teach the subject for which they were currently teaching. When asked if they were a National Board Certified teacher, the majority of the teachers reported that they were not National Board Certified 94.3% (n=200), while a small percentage of teachers reported being National Board Certified 5.7% (n=12). See Table 2.

Table 2

Teacher Demographics (N=212)

Variable	Frequency	Percent
School Setting		
Elementary School	59	27.8
Middle School	39	18.4
High School	114	53.8
Education Level		
Bachelor's Degree	107	50.5
Master's Degree	99	46.7
Specialist's Degree	3	1.4
Doctoral Degree	2	.9
Highly Qualified		
Yes	198	93.4
No	14	6.6
National Board Certified		
Yes	12	5.7
No	200	94.3

The last two demographic survey questions were based on whether teachers would choose to pursue a career in teaching or a different profession if they had the opportunity to return to college. The final question in the demographic section asked teachers to state their current teaching position. Of the teachers surveyed, 60.8% (n=129) said they would choose to become a teacher if given the opportunity again, while 36.8% (n=78) said they would choose a different profession. See Table 3.

Of the 212 teachers surveyed 37.3% (n=79) reported being a state-tested subject area teachers, while 10.4% (n=22) reported being special education teachers. It was noted that upon combining the remaining three categories of those not identified as state- tested subject area teachers, 62.3% (n=132) were identified to be non-state-tested subject area teachers. See table 3.

Table 3

Teacher Characteristics (N=212)

Variable	Frequency	Percent
Choice of Profession		
To become a teacher	129	60.8
A different profession	78	36.8
Teaching Position		
State-tested	79	37.3
Non-state-tested	75	35.4
Special education	22	10.4
Elective Teacher	35	16.5

The Likert-type questions in this section of the instrument was designed to address Research Question 1, thereby providing insight into teachers' perceptions of their principals' leadership behaviors. Participants were asked if administrators valued their decisions and if teachers felt supported, respected, and appreciated by their principals.

Additionally, this section explored whether principals took an active role in the learning process, provided teachers with time to collaborate during the school day, and whether principals placed more pressure on state-measured subject area teachers than non state- measured subject area teachers.

Table 4 illustrates the principal leadership behaviors. Although responses varied, results indicated that administrators take an active role in the learning process and assist teachers in ways to improve instruction. This question yielded the highest mean (M = 3.75). In response to whether teachers felt they had time to collaborate with department members during the school day, this question yielded the lowest results (M = 3.44), indicating that teachers feel that they need more time to plan during the school day.

When asked if administrators placed more pressure on state-tested subject area teachers the results yielded a mean of 3.65. See table 4.

Table 4

Principal Leadership Behaviors (N=212)

Leadership Behaviors	Mean	SD
Administrators take active role.	3.75	.94
Teachers feel supported.	3.68	1.08
Administrators value teacher input.	3.67	1.02
*More pressure on state-tested subject area teachers	3.65	1.16
Administrators treat teachers fairly.	3.55	1.12
Teachers collaborate.	3.44	1.26

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

* indicates reversed question.

The next section on the survey focused on teachers' intention to remain in the profession. This section did not work as a scale; therefore, only one question from this section was used to measure teacher intention in response to Research Questions 1 and 3. Specifically, Question 16 asked teachers whether they planned to remain in the teaching profession next year. Teachers reported overwhelmingly that their intent was to remain in the teaching profession the following

year (M = 4.32). When asked whether they planned on moving into administration within the next year or so, participants responses yielded a mean of 1.70 indicating that most either strongly disagreed or disagreed. See Table 5.

Table 5
Teacher Intention (N=212)

Teacher Intention	Mean	SD
Plan to remain in teaching	4.32	.89
Would stay if not state-tested	2.85	1.23
Plan to teach different grade	2.00	1.14
Will move to different school	1.87	1.07
Will move into administration	1.70	1.04

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

Teacher job satisfaction, Section 3 of the survey instrument, provided infighter regarding Research Questions 2 and 3. Teachers believed that the pressure of high-stakes testing lends itself to burnout in this profession (M = 4.27). In contrast, teachers did not agree with this reversed question in polarity, indicating teachers do not suffer from low morale (m=2.37). Upon examining whether teachers felt appreciated by students and parents a mean of 2.73 reported indicating that teachers do feel appreciated. Teachers also indicated that they were not pleased with their current salary (m=3.84). Responses were fairly neutral when examining satisfaction with work hours and whether they were experiencing burnout. See Table 6.

Table 6

Teacher Job Satisfaction (N=212)

Teacher Job Satisfaction	Mean	SD
High-stakes lends to burnout	4.27	.89
Satisfied with subject area	4.13	.81
Appreciated by colleagues	4.03	.85
*Not pleased with salary	3.84	1.14
Active role in decisions	3.56	.99
Recognized for job well done	3.29	1.08
Can express my concerns	3.23	1.12
*Unsatisfied with work hours	3.18	1.16
*Experiencing burnout	3.15	1.28
Teachers have high morale.	3.14	1.02
Rewarded throughout the year	3.13	1.05
*Unappreciated by students	2.73	1.16
*I have low morale.	2.37	1.12

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

*indicates reversed question.

Teacher mentoring and its effect on teachers' intent to remain in the teaching profession is illustrated in Table 7. Teachers were asked to rate mentoring and induction programs at their schools and whether principals were supportive of new teachers.

Teachers rated these questions in response to Research Question 3. The results of this section indicated that teachers felt that principals were generally supportive of new teachers (M = 3.93).

Table 7

Teacher Mentoring (N=212)

Teacher Mentoring	Mean	SD
Principals are not supportive of new teachers.	3.93	.86
District has induction program for new teachers.	3.45	1.10
New teachers are mentored.	3.15	1.10
*New teachers not provided with supplies.	2.77	1.20

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

* indicates reversed question.

Table 8 illustrates teachers' intrinsic motivators. These motivators include challenges, rewards, and monetary incentives that may or may not motivate a teacher. Descriptive statistics on this last section of quantitative data indicated that teachers felt rewarded from within for teaching their students (M = 4.23). The question that yielded the lowest mean was a reversed question in polarity (M = 3.05) indicating that teachers felt fairly neutral in terms of being rewarded monetarily for becoming a better teacher.

Table 8

Intrinsic Motivators (N=212)

Intrinsic Motivators	Mean	SD
Teaching children at this age level is rewarding.	4.23	.77
I enjoy challenges.	4.19	.63
Rewards make me work harder.	3.52	1.05
*Monetary incentives do not motivate me.	3.05	1.27

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

* indicates reversed question.

Through examining sections 2 through 6 of the survey results, including principal leadership behaviors, teacher intention, teacher job satisfaction, teacher mentoring, and intrinsic motivators, teacher responses indicated that principal leadership had the greatest impact on whether teachers would remain in the teaching profession (M= 3.62). Teacher mentoring, however, had the least effect on teachers' intent to remain in the teaching profession (M = 3.44). See Table 9.

Table 9
Descriptive Statistics of Mean Sub-scores (N=212)

Area	Mean	SD
Principal Leadership	3.62	.89
Teacher Job Satisfaction	3.28	.55
Teacher Mentoring	3.44	.75

Note: Likert-scale 1=Strongly Disagree to 5=Strongly Agree

Hypotheses Results

Research Question 1 stated: Is there a relationship between principal leadership styles and behaviors and teachers' intent to remain in the teaching profession? In order to determine whether there was a correlation between teachers' intent to remain in the teaching profession and principal leadership, a Pearson Correlation coefficient was calculated. The result of the test yielded a positive correlation r (210) = .183, p = .008, indicating a significant relationship between the two variables. Therefore, these results indicated that principal leadership styles and behaviors had an impact on teachers' intent to remain in the teaching profession. This resulted in a failure to reject Hypothesis 1 which stated: There is a statistically significant relationship between principal leadership styles and teacher morale, teacher satisfaction, and teachers' intent to remain or leave the teaching profession.

Research Question 2 stated: Is there a difference in the levels of teacher job satisfaction between teachers of state-measured subject areas and teachers of non-state- measured subject areas? An independent *t*-test was calculated comparing the mean scores of teacher job satisfaction for state-measured subject area teachers and non-state- measured subject area teachers. Based upon the results displayed in Table 10, there is not a significant difference between the two groups of teachers in terms of job satisfaction t

(210) = 1.433, p = .153. The mean of non-state-measured subject area teachers (M = 3.32, SD = .57) was not significantly higher than the mean for state-measured subject area teachers (M = 3.21, SD = .52). This resulted in the rejection of Hypothesis 2 which stated: There is a statistically significant difference between state-measured subject area teachers' and non-state-measured subject area teachers' intent to remain in the profession.

Table 10

State-measured and Non-state-measured Teacher Job Satisfaction

Factor	Teacher Group	N	Mean	SD
Teacher Job Satisfaction	Non-state-measured	133	3.32	.57
	State-measured	79	3.21	.52

Research Question 3 stated: Is there a relationship between teacher job satisfaction, teacher morale, and teacher mentoring programs and teachers' intent to remain in the teaching profession? Hypothesis 1 states: There is a statistically significant relationship between principal leadership styles and behaviors and teacher morale, teacher satisfaction, and teachers' intent to remain or leave the teaching profession. A simple linear regression was calculated predicting teachers' intent to remain in the teaching profession based on their perceptions of teacher mentoring and teacher job satisfaction. The model summary reported the variability explained by the model as 77%. A significant regression equation was found as indicated in the regression table,

$F(2, 209) = 8.697$, $p < .001$, R^2 of .077, indicating a relationship between teacher mentoring and teacher job satisfaction in relation to teachers' intent to remain in the teaching profession. The findings support the hypothesis. The results indicate that the intent to remain in the field is predicted by teacher mentoring and teacher job satisfaction. As reflected in Table 11, teacher job satisfaction had the strongest influence, and teacher mentoring had the least influence on teachers' intent to remain in the teaching profession. Teacher job satisfaction was a positive predictor, and teacher mentoring was a negative predictor.

Table 11

Regression Coefficients for Predicting Intent to Remain

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	2.88	.37		7.74	.001
Teacher Job Satisfaction	.461	.12	.29	3.72	.001
Teacher Mentoring	-.022	.09	-.02	-.24	.81

DISCUSSION

The purpose of this study was to examine whether principal leadership styles and behaviors and the demands of high-stakes tests had an impact on teachers' intent to remain in the teaching profession. Perceptions of teachers concerning the contributing factors that led to their intent to remain in the teaching profession were also examined.

The study also examined whether there was a difference in teacher job satisfaction levels for state-measured subject area teachers and non-state-measured subject area teachers and whether there was a relationship between teacher job satisfaction, teacher morale, and teacher mentoring programs and teachers' intent to remain in the teaching profession.

Self-reported factors were analyzed based upon results obtained from the qualitative portion of the survey instrument. Teachers who participated in this study were employed in public schools in a southern state serving students in grades K-12.

Major Findings

Based on the analysis of descriptive statistics, teacher perceptions indicated that administrators place more pressure on state-measured subject area teachers than non state-measured subject area teachers. Although the response to this question was not overwhelming, over half of teacher responses indicated that they felt administrators placed more pressure on teachers of state-measured subject areas. This finding was particularly interesting since the majority of teachers who participated in the study were non-state-measured subject area teachers. This indicated that all teachers who participated in the study were aware of the demands placed on those teachers who are responsible for teaching subjects where standardized tests are attached. Upon examining teacher intention, most teachers indicated that they plan to remain in the teaching profession for the coming school year. Again, this could be due to the fact that the majority of those surveyed were non-state-measured subject area teachers. Another interesting finding was that when looking at teacher job satisfaction, most teachers agreed that the pressure of high-stakes testing lends itself to burnout in this profession. Kohn (2000) noted that many teachers are leaving the teaching profession because of test pressures and accountability placed on teachers.

Upon analyzing teacher mentoring factors, it was determined that principals were generally supportive of new teachers. This was an interesting finding because previous research contended that novice teachers often cited lack of administrative support as their primary reason for leaving the teaching profession (Robertson, Hancock, & Allen, 2006). In determining which factors teachers felt strongly about when responding to intrinsic motivators, teachers specified that teaching at their current grade level was rewarding to them. Ryan and Deci (2000) indicated that in order for a person to be intrinsically motivated, that person must be motivated by challenges or the excitement of doing something, not simply based on external rewards. According to the data obtained in this study, teachers appeared to be more motivated by the desire to accomplish goals than they were to receive rewards.

Research Question 1 asked whether there was a relationship between principal leadership styles and behaviors and teachers' intent to remain in the teaching profession. The Pearson Correlation used to test Hypothesis 1 indicated that there was a significant difference in the

principal leadership styles and behaviors based on teachers' intent to remain in the teaching profession. This finding indicated that principal leadership plays a critical role in the retention of teachers, and it suggests that administrators should be aware of how their leadership style and behaviors impact the teachers that they lead.

T-test data were used to test Hypothesis 2 with regard to Research Question 2, which asked if there was a difference in the levels of teacher job satisfaction between teachers of state-measured subject areas and teachers of non-state-measured subject areas. Upon examining the Independent Samples Test, it was determined that there was no statistically significant difference between state-measured and non-state-measured teachers when examining teacher job satisfaction. This finding indicated that both non- state-measured teachers and state-measured subject area teachers expressed similar perceptions with regard to teacher job satisfaction and their intent to remain in the profession.

Research Question 3 asked whether there was a relationship between teacher job satisfaction, teacher morale, and teacher mentoring programs and teachers' intent to remain in the teaching profession. A simple linear regression was used to determine whether teacher job satisfaction and teacher mentoring had an impact on teachers' intent to remain in the profession. Results indicated that a significant relationship existed.

Consistent with previous literature on teacher retention, when the combination of factors such as mentoring and induction programs were employed in schools, teachers became more satisfied with the profession, and retention improved (Ingersoll, 2012).

The qualitative component of the survey instrument provided additional insight into teacher perceptions. This section of the survey was titled Self-reported Factors. The five open-ended questions asked teachers which factors contributed greatest to teacher retention and attrition, had they ever left the teaching profession, their primary reason for becoming a teacher, and which factors bothered them most during a typical school day.

With almost all participants responding to these questions, responses indicated that teachers were passionate about answering this section of the survey. These questions and answers were in response to Research Question 4: Is there a difference between self- reported factors that contribute to teachers' intent to remain or leave the teaching profession?

The first open-ended question asked: Which factor contributes greatest to a teacher's desire to remain in the teaching profession? Most teachers stated they remained in education because of student success, enjoyment of their subject area, and the art of teaching. This finding is confirmed in Ryan and Deci's (2000) study which suggested that "to be motivated means to be moved to do something" (p.54). Teachers in this study indicated that they remained in this profession because they were motivated to teach children.

When asked "Which factor contributes greatest to a teacher's decision to leave the teaching profession," teachers reported lack of administrative support, teacher workload, and student discipline as the three strongest reasons teachers leave the profession.

Teacher responses confirmed information found in previous studies such as Ingersoll's (2004) study, which found that job dissatisfaction accounted for nearly 40% of teachers departing high poverty schools, with lack of administrative support being a contributing factor to teacher job

dissatisfaction. This finding suggested that teachers rely heavily on administrative support in providing an environment where teachers experience high levels of job satisfaction.

When asked whether they had ever left the teaching profession, 21% of teachers surveyed reported that they had left and returned to the teaching profession. Most of the teachers reported leaving for personal reasons and lack of job satisfaction. Upon examining job satisfaction, they stated that teachers were required to perform many extra duties in addition to their primary role of teaching students. Responses revealed a strong indication that teachers felt overwhelmed in fulfilling their daily responsibilities to the extent that they were willing to leave the teaching profession altogether. As stated in previous research, the emphasis on better classroom practices may be a current focus in education, but this will only be beneficial to schools if they are able to recruit and retain strong teachers (Cochran-Smith, Cannady, McFachern, Piazza, Power, & Ryan, 2011).

When teachers were asked about the primary reason for becoming a teacher, most indicated that they were in this profession for the love of students and teaching, strongly confirming previous research in this area. Curtis (2012) found that 71% of teachers entered the profession for the enjoyment of teaching, 70% enjoyed the subject, and 66% enjoyed working with children. Several of the respondents commented on their love for teaching, enjoyment of their particular subject area, and working with students. When teachers feel connected to their teaching responsibilities and passionate about what they are doing, they may form a channel that improves retention rates among educators, especially those who teach math (Curtis, 2012).

When asked what bothered them most about the teaching profession, teachers reported: student discipline, paperwork, and pressures of state-testing as the three most significant factors. Teachers felt that student discipline limited the effectiveness of their teaching due to the many behavioral issues that they often encountered. Teachers also believed that if they could just focus on teaching and less on paperwork, they would be more effective. The pressure of state-testing was frequently noted as a factor that bothered teachers. Teachers felt that policy makers made decisions that affected educators, and it bothered teachers that so many mandates had been placed on them. Furthermore, teachers felt pressure to fulfill obligations that sometimes felt unattainable for many of them due to these mandates.

Through examining all statistical findings in this study with regard to significance, it was indicated that principal leadership styles and behaviors had an impact on teachers' intent to remain in the teaching profession, state-measured and non-state- measured subject area teachers' perceptions did not have a significant impact on teacher job satisfaction, and there was a significant relationship between teacher job satisfaction and teacher mentoring on teachers' intent to remain in the teaching profession.

Descriptive statistics suggested that principal leadership had the strongest bearing on whether teachers would remain in the teaching profession, whereas teacher mentoring and teacher job satisfaction had the least impact on teachers' intent to remain in the profession. Although teachers expressed their frustrations and dissatisfactions with regard to the teaching profession, only two state-measured and seven non-state-measured subject area teachers of the 212 teachers surveyed in this study reported that they would not return to the teaching profession the following

year. Of the 57 novice teachers in this study, 18 were state-measured subject area teachers. Only two of those teachers stated that they would not return to the teaching profession next year.

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BUSINESS COMMUNICATION COURSE REDESIGNED: ALL WRITTEN AND ORAL COMMUNICATION ASSIGNMENTS BASED ON BUILDING CAREER SKILLS

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ABSTRACT

The purpose of this article is to provide a method of teaching a business communication course that can bring superior value to the student by merging basic written/oral principles with career-building assignments into one seamless course of study.

The more than 30 years of teaching business communication or managerial communication courses has convinced the researchers of this article that business communication instructors can help students significantly by immersing them in a full course of career-building assignments. The outcome can be securing highly sought internships and fulfilling jobs upon graduation as well as satisfying, productive careers. The business writing and speaking skills applied to these assignments include clarity, conciseness, coherence, emphasis, and foundation skills. Written communication documents include letters, emails, and reports. An oral powerpoint presentation is required near the end of the semester. Over the many years of teaching, researching and measuring the course, along with the feedback from business leaders, career service advisors, faculty and students it became clear that a some components of the course were becoming dated and other components needed to be added and emphasized.

In this article, we will explain briefly each component of the improved course, including the requested document or communication activity:

- *Self-SWOT*
- *Networking*
- *Informational interview(s)*
- *Job Announcement*
- *Resume*
- *Cover Letter*
- *Career Portfolio*
- *Mock Interview*
- *Oral Presentation – Job Interview PP*
- *Comprehensive Report – Lessons Learned*

From start to finish, the improved course focuses on sharpening written and communication skills. On the first day of class, the concept is explained so that students understand that they will be totally immersed in building themselves into promising candidates

for significant positions sought throughout their lives. Likewise, traditional writing and speaking training will be reinforced throughout the course.

METHOD

To measure whether the proposed changes and additions to the business communications course added significant value, thirty -- former business communications students (all of them graduates and employed; many serving as directors, managers and executives of companies) were emailed a survey letter asking them to compare the original course to the new course. Tables with the original course content and the new course content were included along with a side-by-side comparison table for clarifying additions and changes. In summary, the letter asked the former students to: *Note the differences between Table 1 and Table 2. In Table 2, section B is significantly different. SWOT, informational interviews, and networking assignments have been added. Do you believe the additions, in Table 2, add value to the course? Why or why not? Please write your comments regarding the additions found in Table 2 (Part B) in an email reply.*

Three of the emails were returned as undeliverable. Twenty-three of the twenty-seven, emailed business students responded to the survey. Twenty-two of the twenty-three respondents indicated that the new course added significant value. In addition to the overall positive responses, SWOT., mock interviews and networking were specific components of the new course that received the greater part of the positive feedback. And, while the bulk of the comments, regarding the components of the new course were positive, a few respondents noted that, in their opinion, some of the new course components could be modified; and that some components may be less important than others. Some respondents offered constructive suggestions for improving the course. Collectively, there were twenty-two pages of comments. Some of the more consistent and more salient comments are included below. In a few cases, respondents had very different views (please see, for example, 2. and .8)

1. *I enjoy the changes that you are making in the program and think that they will benefit many students to come. Memos have become irrelevant, so I am glad that section is changing. I love the SWOT analysis. While many people talk about this analysis, few show how it can change a company. With the SWOT analysis, I think it would be vital to have students write a business plan using their own analysis.*

2. *I have to say that I would prefer the Table 1 version. As a student, I would have hated doing the interviews, searches for job announcements, mock interviews and community service. All those elements are important, but possibly for a class focused on career placement, not this class.*

3. After reviewing the letter, Table 1, Table 2 and the comparison document, I feel the updated course curriculum would better prepare a business student for a future career. The updated curriculum seems less hypothetical and more focused on helping the student understand who they are. Businesses are taking a more informal approach to writing. … When I ask professional copywriters their thoughts on rules regarding grammar, their answer is always, "Grammar rules are very vague and ever changing. As long as you maintain consistency and avoid spelling errors, you will be safe." …A good portion of these students may already have careers. To help the working student, have them write something for their company.

4. I like how you have replaced the "contrived" with real experiences, real reflections, real self-awareness, real aspirations and real steps to obtain the desired outcome. Too many students graduate and fall into jobs that they don't want, that don't fit their natural abilities and ultimately don't bring fulfillment. Also, I would encourage the instructor to consistently remind students that nearly all business leaders have an open door policy when it comes to helping students. Nothing is more American than helping a student. In contrast, once a student graduates almost no insiders will talk to them. Think about it. The door really closes after graduation. If students take your new assignments seriously, they will almost certainly get the guidance they need (free of charge), build the network they need and integrate themselves into the culture of their chosen career path well before graduation.

5. In my experience, communications skills are a great way to separate equivalently qualified job candidates. So, applying managerial communications skills directly to a job search will empower students to better position themselves for future job searches.

6. I really like the idea of networking, this is very important in our day and age. A student or recent graduate will not succeed without knowing multiple people in their field of study. I like the idea of offering service also, nothing but good can come from this. I would also add that your students create a profile on www.linkedin.com so potential employers, recruiters, and HR personnel can view their credentials. This website has been a source of great help to me in finding qualified individuals to fill positions in my company. E-networking is vital, but face-to-face networking will always be more valuable. I would also encourage them to apply to 3-5 jobs of interest throughout the year and let what you teach them improve their interviewing/job preparedness abilities.

7. Comment – Any activity that can bring student and practitioner together is well worth the effort. Students must learn that success in life and business is both about connecting and capability. If there is no connection there can be no application of capability. A few goals for students in this activity should be to answer some of the following questions?

- *Determine what sets the senior manager apart? Why are they in a senior management position instead of someone else in the company?*
- *What are a few key events that have shaped the senior managers career and allowed them to be successful?*
- *What sets the average employee apart from the top performer?*

8. Respondent A: Career portfolios are not something I have ever experienced in interviewing people for employment, nor have I ever used one in an interview. I know that some arts majors, and I assume others, have portfolios that show their work but I've never seen this in business.

Respondent B: Career Portfolio - I carry a hard copy of my portfolio where ever I go. After finishing Dr. Addams course, I converted my portfolio electronically. The letters of recommendation have definitely been some of my most valuable assets.

9. Teach your students to rewrite a bad letter. During my 11 years at the bank, I had to learn to take poorly written messages and rewrite it for the president or senior VP. I think the hard copy portfolio is dead. If a student had an online portfolio for me to check out in addition to the LinkedIn, it would give them a leg up in an interview. LinkedIn needs to be emphasized in the class. This has become as important, if not more important, than the resume.

10. The proposed changes to the course will make a notable difference in the ability of the students to be more competitively prepared for the job market. To reference a popular saying, "This kills two birds with one stone" melding together the current teaching of key managerial communications principles with the

added benefit of helping students think much more deeply about their careers and being markedly more prepared for securing positions.

11. This should be a mandatory course for any higher ed. student to help them achieve. One of the key reasons students obtain a degree is to get a great job! I see this as necessary curriculum. If taught effectively, it would soon gain popularity and become known as the "must" course for getting the right job during and after graduation. Isn't this the reason why universities exist?

The majority of the respondents indicate that students would be well-served by utilizing the writing and speaking assignments delineated below. Nearly all of the respondents believe that business written and oral skills can be taught concomitantly with job search/career-building assignments. Overall, they felt quite strongly that students can gain increased value through the proposed course redesign. To more fully understand the proposed changes, we have summarized the job search/career-building assignments below (Nos. 1-10).

SELF-SWOT

The purpose of this assignment is to enable students to continuously progress in their careers through the use of a personal assessment tool adapted from business use. We have titled this personal assessment tool "self-SWOT analysis." SWOT is a business acronym typically used to identify an organization's strengths (S), weaknesses (W), opportunities (O), and threats (T). This technique is used to evaluate a company's internal strengths and weaknesses and its external opportunities and threats. The underlying assumption of a SWOT analysis is that managers can better formulate a successful strategy after they have carefully reviewed the organization's strengths and weaknesses in light of current threats and opportunities the environment presents.

Starting the job search process with a self-SWOT assignment can guide students in personally assessing their strengths, weaknesses, and the work environment. After reviewing the literature regarding company internal assessments, Chermack and Kasshanna (2007) found that company executives have used SWOT frequently for several years. They noted the use of SWOT by organizational decision-makers who seek ways to manage uncertainty and direct their organizations through difficult, challenging times. Earlier, Panagiotou (2003) acknowledged the value of SWOT for decision-makers in assessing an organization's environment in a rapidly changing, highly diversified, competitive world.

To obtain internships and career opportunities, students need to construct an effective cover letter, resume, and career portfolio. Before embarking on these necessary career preparation activities, instructors should teach their students how to self-analyze their career paths by conducting a self-SWOT analysis to recognize their strengths, understand their weaknesses, uncover underlying marketplace threats, and identify appropriate opportunities.

Helping students to self-analyze and plan for the future career choices is not limited to business communication courses. Wagner (2010) offered advice to finance instructors on career planning. Through an honest self-assessment, students created a self-development plan. She wisely advised students to review documentation, such as their performance reviews, that highlighted skills or success in the workplace. McCorkle, et.al. (2003) advised marketing

instructors to teach students to apply what they have learned in their marketing courses, such as self-marketing tools.

Students are coached to use bullet phrases to self-assess personal strengths under the "S" section, followed by recognizing gaps ("W" section) in any of the items shown in the above section. Likewise, after researching and analyzing the job marketplace items under the "O" section, students must determine the gaps or problems in these areas and notes them under the "T" section. Finally, student opportunities and threats are noted as the external marketplace environment is objectively assessed.

Exhibit 1. Self-SWOT Assignment

Directions: Type your **Self-SWOT**. Objectively identify–using bullet phrases–your strengths and weaknesses for the **S** and **W**. Consider items below in parentheses. Conduct some research on real (not made up) opportunities (**O**) within the marketplace and your fields of interest that could accelerate your career. Now, contrast those opportunities by identifying realistic threats (**T**) associated within those marketplaces.

Strengths (skills, education, experience, networking, character traits, other)

_____?

Weaknesses (gaps in skills, education, experience, networking, character traits, other)

_____?

Opportunities (technology, legislation, social values, economy, demographics of population, geographical considerations, positively affected economic trends within sectors, other)

_____?

Threats (gaps in technology, legislation, social values, economy, demographics of population, geographical considerations**,** negatively affected economic trends within sectors, other)

_____?

Through an effective self-SWOT, a student can see the weakness of not having related work experience, for example, and move forward to secure a related internship as a junior and/or senior college student. By a thorough, honest self-inspection, a student can see the value of being an active member in a student club or college committee that will improve an identified weakness in leadership or communication skills.

Self-SWOT assignments can greatly impact student preparation for internships and career positions upon graduation. Students who objectively craft a self-SWOT will better understand their strengths and weaknesses and realize the importance of finding opportunities to improve.

Graduates will be able to utilize a self-SWOT as needed when future career changes or enhancements may be contemplated.

Assignment: email to professor with self-SWOT attachment.

NETWORKING

Perhaps there is no better course in academia than a business communication course to teach positive networking. Positive networking has practical application regarding the job search skills taught in communication courses. Beginning this course on the job search process, we teach the importance of networking to assist students in building their networking skills quickly. Through personal networks, students can find informational interview possibilities and job announcements. Throughout the course, students will be expanding their networks through course activities (see below).

We teach our students to look at networking in a positive, life-enhancing way. We promote the concept that networking means building friendships that endure. In business, in education, in communities, and in life situations, true friends help friends with no hidden agenda—no "what's in it for me" attitude. Networking needs to be a two-way street. Expecting a reward for helping someone is counter to the spirit of networking. Sincerely helping others will foster a life full of choice relationships.

Similarly, Hochberg, Ljundqvist, and Lu (2007) emphasize partnerships based on mutual benefit. Haggerty (1999) and Dulek (2006) believe networking should be more about <u>giving</u> than about expecting benefits in return.

Any lecture on networking should not only include the value of positive networking but also helpful tips on ways to successfully grow and maintain a network of trusted friends.

For example, assume your university is hosting a career fair on campus in the next few weeks. Role-play with students how to make contacts with potential employers. Role-play how to ask for a business card from a company representative. Teach students to keep in touch with company representatives by sending thank-you letters immediately and making appropriate phone calls that show thoughtfulness and sincerity.

Further, stress the importance of keeping in touch with a friend who has made a contact for you regarding a job opening with a company. A relationship will flounder by not communicating directly with the new "friend" regarding the outcome of the referral. Nourish the relationship by finding a way to show your appreciation. For example, contact this friend to help him or her as situations arise when your "job" situation is ***<u>not</u>*** the issue. For example, you could take this person to lunch, send flowers when learning of a happy or sad life event, or drop a note to show you are thinking about him or her, etc.

Students can build relationships by extending themselves to other students, to faculty members, to staff on campus, etc. Students can join fraternities or sororities, clubs, or student association committees on campus where they can enhance communication and leadership skills and often give service to others in the process. Many student organizations connect often with

employers by arranging tours of company plants and inviting company representatives to speak in classes.

Outside the university setting, students can further enhance their network through:

- *becoming involved in community groups, such as Big Brothers/Big Sisters, homeless shelters, Special Olympics, senior citizen rest homes, etc.*
- *participating in hobbies that involve others, such as antique auto shows, photo exhibits, running clubs, etc.*
- *coaching young people in a sport*
- *volunteering to help a scout group*
- *tutoring at a local school*
- *attending plays, concerts, or sports events with others*

Developing the positive mindset of helping others builds an individual's character and widens the sphere of friendships. Helping others who have needed assistance on projects, information on topics, advice, new ideas, etc. builds trust. Positive networking is built on trust and on honest communication.

Students will ask for specific methods to develop and nurture a network in their everyday lives. Here is a helpful "to do" list:

- *maintain a list of your friends and associates. Keep in touch periodically.*
- *exchange names, email addresses, and phone numbers with new contacts. Record anything you observe about the person--likes and dislikes, situation, circumstances, etc. Add them to your list.*
- *work every day to expand your network. Make no mistake; this does take work.*
- *help others when you see a need arise.*
- *get to know a new person in another department at your present job every month.*
- *acquire a mentor, both at work and in your academic major.*
- *be a mentor to someone.*

Ten networking assignments to give students are listed below. For each assignment, require the student to submit evidence of completion. Examples of evidence may include a memo with copies of business cards attached, a letter verifying participation, etc.

1. *Send a thank-you letter to someone who has helped you in some way during the past two months. An alternative to the thank-you letter is a congratulatory letter to someone who has achieved something significant over the past month. This assignment works best by restricting the letter to someone outside the family.*

2. *Prepare a list of individuals in your present network. The list should include name, position, organization, phone number, email address, areas of expertise or traits admired, and notes about the relationship. Next, identify 10 people you would like to add to your network this semester. Your list should include each individual's area of expertise or some specific traits admired. This would be an appropriate assignment at the start of the semester.*

3. *Work with your university's alumni association in contacting past graduates. For instance, Weber State University has a very successful "Meet Your Mentor" program. In this program, the university contacts past WSU graduates to take a student to lunch. The WSU supporter is typically a successful*

businessperson. The WSU Alumni Association matches the graduate's business area to the student's major. The purpose of the program is to give students opportunities to meet professionals and learn more about the area of interest. Other universities have similar programs.

4. Join a professional association or a student organization on campus. Be active in their events. Seek a leadership role.

5. Attend a career fair on campus. Identify specific companies of interest. Take tailored resumes to the company representatives. Require the student to prepare a database, including: the name and title of the company representative, the name of the company, the product or service, and the position available. Write a thank-you letter to each of the recruiters you met.

6. Attend a campus lecture or an off-campus professional conference. Introduce yourself to the speaker, ask the speaker to meet with you to further discuss the area of interest, and subsequently meet with the speaker.

7. Volunteer your time and/or skills to a community organization, such as a homeless shelter, Rotary Club, Kiwanis Club, Red Cross, city government office, etc.

8. Assist a candidate running for a legislative office.

9. Meet with the career counselor in your university's career center. Discuss at least two available internships and contact their company representatives.

10. Participate in a service-learning or service project. These projects are often available on campus or through campus contacts. Participating with others who are committed to strengthening the community can be a valuable experience.

Our job search lectures and assignments focus on students learning to grow and nurture their network throughout their lives. This concept puts networking in a life-long context—not simply in the context of completing an assignment for class.

Understanding the positive side of networking can assist students in making valuable changes in their lives. This positive mindset can lead students to widen their acquaintances and to nurture meaningful relationships.

Assignment: letter of appreciation or a congratulatory letter to someone in your network who has helped you recently or who has achieved a milestone in life.

INFORMATIONAL INTERVIEW(S)

Once a self-SWOT has been written, a student should objectively consider the type of professional position that builds on his/her strengths and offers opportunities for success. Accordingly, the student should ponder possible individuals in a senior position in the particular industry. The networking assignment above should produce valuable possibilities regarding potential people to interview or contacts who may be able to lead the student to a prime expert in the field.

Most students are initially nervous about interviewing a top manager. However, our students have appreciated being required to meet and converse—in person-- with a knowledgeable, successful businessperson in their field of interest.

Decarie (2010) emphasized that informational interviews with business professionals helped student improve their writing, editing, and interviewing skills. She noted that such interviews are a valuable means to allow students to converse with those who might have an impact on students' careers. Likewise, Mulvaney (2003) found that an information interview to be a great success with her students. She stresses the importance of preparation, including dressing appropriately for the interview and taking careful notes during the interview. Following the interview, she requires a copy of the students' thank you letters, an important part of the writing element in this activity.

Below, we have shown a list of required questions for students to ask during the informational interview. They focus on realities and challenges of the specific job.

Questions:

1. *What does your company do? What differentiates your company?*
2. *Who are your competitors? Who are your customers?*
3. *What attracted you to this industry?*
4. *What does it take to succeed in this industry? Why?*
5. *Who fails? Why?*
6. *What are your job responsibilities?*
7. *What do you like about your job –especially?*
8. *What do you dislike?*
9. *How are you motivated?*
10. *Could you give me some idea of the compensation as a professional in this industry?*
11. *What books should I be reading? Should I be joining an industry association?*
12. *What else should I be doing to prepare myself? Other classes?*
13. *Could you help me assess how likely I am to be an attractive candidate in the future?*
14. *How do you feel about involvement in college organizations, clubs, and committees?*
15. *Is there someone else I would benefit from talking with?*
16. *What question should I be asking that I have not asked?*
17. *Is there anything I can do for you?*

Once the interview is over, students are taught to immediately debrief. Notes should be clarified, impressions written down, and organized for the upcoming written report assignment (see below).

Assignment: written report to professor; incorporate answers to questions Nos. 1-17 above stressing new insights and direction for your career.

JOB ANNOUNCEMENT

Having completed some of the networking assignments above, the student should have some contacts to utilize in finding a job announcement that meets his/her interest. Informational interviews may also yield some possible opportunities to investigate. Various methods can be

used to give the students some direction in finding a real job position in an actual company that would be appropriate for the particular major. The students should be encouraged to find a position that they would desire upon graduation. One substitution could be made that is also very practical: finding an internship announcement—in the student's major. Many students actually carry the assignment all the way to accepting the position.

One method used to help the student find a real position available is to invite the career counselor at your institution to speak for part of a class period on the benefits of utilizing the career center services and on the job announcements currently available for internships and career positions upon graduation. Typically, the career counselor has access to a number of opportunities. The side benefit of bringing in the career counselor is providing the students with the chance of connecting with the career counselor for future assistance.

Another method used to assist in locating potential company career positions is to invite two-three human resource managers from local firms to take a few minutes of class time to promote the need for excellent communication skills in resumes, cover letters, career portfolios, and job interviews. This speaker could also share job announcements for current internships available and for career positions in accounting, finance, marketing, management, economics, information technology, etc. Most human resource managers have written job announcements to share. Accordingly, a proposed assignment follows:

> *Assignment: submit a typed copy of an actual announcement (internship or career position) which you will utilize for the resume, cover letter, career portfolio, mock interview, and reports.*

Student must choose a viable position. Some students mistakenly choose a position (like Vice President of Marketing in a large firm) that will take several years to acquire the needed experience for this more senior position. At times, an internship announcement will not specifically identify the type of business major needed ("internship at Boeing"). If this occurs, have the student contact the organization and document the type of major needed. The student should tailor the resume, cover letter, career portfolio, and interview content to the skills and knowledge required for the major. Consequently, the value of ascertaining a realistic situation cannot be overstated.

RESUME

When writing a resume, the student should tailor the resume to the position found in the job announcement (assignment above). With the position evident to the student, he/she should jot down the critical skills and knowledge needed for this particular internship or career position. At times, the job announcement may list the critical skills, related experience, and knowledge the company desires for this particular job. Having completed a self-SWOT, the student can utilize strengths and abilities in crafting an effective resume that captivates the recruiter.

Two ingredients are needed to write a resume that **sells**: (1) emphasis on accomplishments/skills developed and (2) positive appeal.

Under a student's job experience section, he/she needs to describe unique, specific contributions to a past or present organization. Numbers sell because they foster credibility and definable success. For example, perhaps the student increased sales by 10 percent over pre-set company goals for the last three months. Or, perhaps the student sharpened human resource management skills by developing a new performance appraisal instrument, resulting in both management and communicating more effectively with the new performance review process. Accordingly, the student should stress accomplishments and contributions in past jobs rather than a long list of job responsibilities.

Students must state accomplishments and attributes gained in specific jobs which focus on the skills needed in the job announcement (discussed in the earlier assignment). Thus, in the work experience section, the student should bullet two-three contributions or skills developed at a particular company. Credibility is built on facts, not general expressions such as "I am a great communicator." This bullet sells: "increased personal sales by 20 percent over a three-month period." Also, by indicating a skill developed on a particular job, the student shows he or she is teachable. Further, students must understand that they need to specifically indicate how they have added value to companies and that they have the skills required for this open position.

The second ingredient in crafting a resume that sells is positive appeal. By accentuating the positive, the student increases value when the interviewer or potential manager glances briefly over the resume. The most important items should be strategically positioned *first* in any bullet list and in the resume overall.

Another way to show positive appeal is to address the needed skill set for the open position by crafting an effective "Key Qualifications" section immediately following "Job Objective." Two or three one-line bullet phrases should capture (1) the status of the student's education and (2) a summary of work experience, preferably related work experience.

Assignment: submit a typed resume for an internship or career position which she/he will utilize for further assignments in the course, such as the career portfolio, mock interview, and oral presentation; a copy of
The job announcement should be attached.

COVER LETTER

The cover letter should be used to personally connect with the reader. The recruiter, human resource manager, or hiring manager who reads the student's cover letter should be able to grasp quickly that this job seeker meets the chief qualifications for the job. Hence, the cover letter must **sell** his or her strong points that align with the company's needs.

The first paragraph should immediately reaffirm the position desired. The middle paragraphs should **sell** qualifications by writing a sentence or two, followed by a bullet list of three or four of his/her key qualifications that meet the job announcement requirements. Finally, the closing paragraph should reaffirm enthusiasm for the possible position and request an interview.

Assignment: submit a typed cover letter—along with the resume--for an internship or career position which you will utilize for other job search activities; a copy of the job announcement should be attached.

CAREER PORTFOLIO

Next, the student prepares for the upcoming interview, given the cover letter and resume captured a recruiter's interest. An often overlooked strategy is creating a career portfolio.

Business educators can help students self-market by teaching them the value of a career portfolio for a successful job search and for future performance appraisals in their careers. Educators in all business majors can help students market themselves by teaching their students how to build a career portfolio—sometimes with documents produced in their classes. For example, a finance instructor could require portfolio inserts, such as a survivor portfolio, investment portfolio, and a ratio analysis.

In the business curricula, students are taught to communicate and to market goods and services. The job search research team of McCorkle, Alexander, Reardon & Kling (2003) stressed that marketing educators have the responsibility to teach students self-marketing/job search skill development; otherwise, good students accept bad jobs, which reflects not only on the students but also on colleges and universities providing business education. Campbell (2002 and 2006), McPherson (1998), and Powell & Jankovich (1998) also suggest that students need to be more engaged in marketing their own skills, knowledge, and abilities.

Powell and Jankovich pointed out that the portfolio enhances the student's ability to pass the initial interview screening process. Moody, Stewart, and Bolt-Lee (2002) found that the portfolio demonstrates students' written communication skills, technological ability, and creativity. In a survey to representative employers (provided by the National Association of Colleges and Employers), these researchers found that 71 percent of respondents agreed that portfolios were moderately-to-extremely helpful in showcasing students' abilities. Recruiters were interested in seeing portfolios that provided concrete examples of student achievements.

The career portfolio is a collection of documents that represent events in the student's life–evidence of potential through documented accomplishments. These documents build credibility. In an article on portfolio development, Heath (2005) describes the professional portfolio as an organized collection of self-selected artifacts, developed for a specific purpose and audience, which demonstrate the writer's professional knowledge, skills, dispositions, and growth over time.

Creating a career portfolio generates both a *process* and a *product*. Accomplishments and skills are documented–on paper. Focus can be placed on values, interests, goals, and strategies, which will help in constructing a marketing package.

Compiling a portfolio is an excellent way to prepare for an interview. Documents build credibility. During the job interview, the student can show, not just tell, about an accomplishment or skill developed.

Two uses for a career portfolio are (1) internship and career position interviews and (2) job performance appraisals.

Internships provide additional expertise, outside of the classroom, in a specific area.

Your career portfolio may make you more attractive as an applicant for an internship. Presenting your work to enhance your credibility makes good business sense. Your well-designed and documented career portfolio may be the edge you need to secure that prized internship.

Once a student has landed an internship and/or career position upon graduation, he/she should continue to update the career portfolio. Examples of effectiveness, success, congratulations, and awards contribute to a documented path of skill-building which can be utilized in performance reviews with management in a professional's career. This evidence may justify increased a promotion, additional compensation, or new responsibility.

The career portfolio should showcase acquired relevant skills and abilities for a particular internship or career position. Below, we have listed documents for business majors:

- *Title Page ("Career Portfolio" and "Your Name")*
- *Contents Page (items/documents listed in order of appearance)*
- *Cover Letter (tailored to the job opening)*
- *Resume (tailored to the job opening)*
- *Academic Plan of Study (relevant courses titles—not course numbers)*
- *Professional Goals (short term and long term)*
- *Personal mission statement*
- *Written and Visual Documents (e.g., a memo, case response, research report, PowerPoint presentation slides, brochure, client proposal, new product description, etc.)*
- *Evidence of Skills & Knowledge Acquired from Academic Preparation and Work Experience* ** ***[e.g. A marketing plan for a marketing major]***
- *Leadership Experiences*
- *Community Involvement*
- *Performance Appraisals*
- *Awards/Certificates/Honors/Letters of Commendation*
- *Other Evidence of Professionalism*
- *Solicited Letters of Recommendation*

Letters of recommendation are particularly valuable. These letters provide an objective assessment of skills, knowledge, and work ethic by an objective source—such as a past or present manager at work or a college professor.

Our students are required to purchase a professional, leather-look binder to use as their portfolio. All documents are places strategically in sheet protectors. Depending on the interview, documents can be temporarily removed and/or additional documents added. Carrying a portfolio into an interview adds to the student's confidence.

Electronic portfolios are becoming a popular tool in helping select candidates for interviews and for positions. According to Heath (2005), electronic portfolios are much easy to reproduce, distribute, and access. A secondary benefit of building an electronic portfolio is the evidence itself of your technology skills, which may be quite useful to the interviewer's organization. Most importantly, though, the electronic portfolio, like the physical portfolio, helps you to market yourself.

According to Montgomery and Wiley (2008), electronic documents can be linked to each other and across standards as the writer feels appropriate. The portfolio serves as proof of the accomplishments achieved during careers.

Some of the documents that were used in the physical version of your portfolio could be

included in the electronic version, including items associated with your education, work, volunteer history, awards, project samples, and reference letters. In addition, the electronic version may include screenshots, multi-media images, and audio and video clips. Once you have created your portfolio, you may wish to store them in a cd and/or produce a web site.

Heath (2005) stresses the importance of each page being logically organized and readable holding to the proper use of color, type size and fonts, and contrast. All multimedia, including photos, graphics, video, and audio are used as artifacts to show evidence of specific skills. Writing principles cannot be overemphasized. Missing graphics, broken hyperlinks, or errors in spelling, punctuation, or grammar communicate a poor candidate.

Throughout the interview, the interviewee should look for the appropriate time when the interviewer wants to see a document mentioned. The hard-copy version of the portfolio has no substitute in a one-on-one interview. A copy of the portfolio on disk can be left with the interviewer. Once the interviewer holds the portfolio, the likelihood is great that he /she will continue to study other pages in a well-designed and documented career portfolio.

Assignment: develop a career portfolio, focusing on the job announcement above. Include the cover letter and resume already written in response to the job announcement.

MOCK INTERVIEW

Learning to express yourself while emphasizing related skills in the context of the job being sought is critical to successfully being selected by organization recruiters. Students often lack confidence in this critical skill. By gaining practice in speaking to another person—even in a contrived mock situation, a student can learn quickly the strengths and weaknesses possessed.

Relevant literature supports the importance of teaching student how to interview (Maurer, et. al. 2001; Moynihan, et.al. 2003). Since mock interview with fellow classmates at least 20 minutes a person, the mock interview assignment can be an out-of-class assignment. Marks and O'Connor (2006) agree, stressing that it is almost prohibitive to provide the time necessary to conduct mock interviews in the classroom.

Having students review their performance is very useful to the learning experience. Students are quick to relate that they gained a better perspective on their strengths and weaknesses—both regarding content of answers and nonverbal nuances.

Students appreciate the opportunity to conduct the interview outside of class, citing the flexibility of being able to pick the time and place of the interview with an assigned classmate as the interviewer. Each student is not only interviewed (the primary goal of the assignment) but also acts in the interviewer role.

Assignment: use emails to communicate with your assigned mock interview partner. Conduct a 20-minute interview, acting as the interviewer. Then, be interviewed by your partner, using your career portfolio.

ORAL PRESENTATION – JOB INTERVIEW PP

Often open professional positions require an interview with several senior management officials. This critical interview is typically the deciding factor between finalists. With this scenario in mind, we have four to five fellow students act as the senior-manager audience. A powerpoint presentation is required, which should stress the student's major selling points in acquiring the specific job. Again, in this course methodology, the student utilizes the job announcement he/she used to write a resume, cover letter, and career portfolio.

Overall, the instructor would evaluate a student' ability to sell himself/herself. The oral presentation criteria would typically include content (opening, agenda, body, and closing), delivery (eye contact, gestures, no distractions), voice (speaking rate, projection, articulation, vocabulary, no slang), and powerpoint visuals (clarity, delivery, conciseness, appropriateness for audience.

Assignment: make a powerpoint presentation to an assigned panel (fellow students acting as senior management in organization that has selected you as one of three finalists for the position you previously selected.

COMPREHENSIVE REPORT –LESSONS LEARNED

Near the close of the semester, a comprehensive report will help solidify lessons learned in the two purposes of the class established at the first of the course: (1) written and oral communication skills gained and (2) job search skills for immediate use and for lifetime situations.

The written report to the instructor should naturally center on traditional text coverage on report writing, including conciseness, clarity, audience analysis, emphasis, coherence, parallelism, grammar, and writing mechanics.

The content of the report should center on insights gained by the student regarding the self-SWOT and informational interview(s) in particular, appreciation for positive networking activities, cover letter and resume writing, career portfolio development, mock interview practice, and oral presentation skills. The instructor could choose one or two of these assignments (e.g. self-SWOT and informational interview) or could require personal insights into all of the above activities.

Assignment: Write a report to your professor on the career-building activities above, centering your attention on written and oral communication skills you have gained. Also, articulate any insights you have found through your information interview.

In conclusion, this article has attempted to package an entire course focused on helping students communicate better in writing and speaking while utilizing job search assignments to add value to the students' life-long learning. An additional benefit to this approach is the high level of students' interest as they see quickly the investment in themselves.

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RATEMYPROFESSORS.COM EVALUATIONS AND EXTERNAL BENCHMARKS OF ACCOUNTING PROGRAM QUALITY

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ABSTRACT

With over 14 million ratings of instructors, RateMyProfessors.com (RMP) is the most widely used web-based tool for student evaluation of teaching. Because RMP is used to evaluate the teaching quality of individual instructors, it is not surprising that most prior research has focused on the validity of RMP scores and whether they correspond to more traditional methods of student evaluations.

This study is the first to aggregate the RMP scores of individual instructors within an accounting program to derive a measure of quality for the accounting program as a whole. This quality measure is then compared to numerous other external benchmarks of accounting program quality. Results show significant and positive correlations across a variety of quality metrics. AACSB accounting accredited programs have higher RMP scores than do programs lacking such accreditation. Programs ranked in Public Accounting Report's Annual Professors Survey have higher RMP scores than do unranked programs. The results extend to areas not obviously related to classroom performance, as accounting programs considered among the top research institutions have higher RMP scores than do less research oriented programs. Finally, higher RMP scores are associated with higher CPA Exam pass rates.

INTRODUCTION

RateMyProfessors.com has become a widely used tool for college and university students to provide feedback about their instructors. As their website (http://www.ratemyprofessors.com/About.jsp) notes, "RateMyProfessors.com is the largest online destination for professor ratings. Users have added more than 14 million ratings, 1.3 million professors and 7,000 schools to RateMyProfessors.com." Use of the site has become so widespread and accepted that Forbes Magazine assigns a 15% weight to RateMyProfessors.com scores in its annual ranking of America's top colleges (Howard, 2013).

Since RateMyProfessors.com (hereafter RMP) is a tool for evaluating the teaching quality of individual instructors, it is not surprising that most prior research has focused on the validity of RMP scores and their correlation with more traditional measures of instructor quality, such as student evaluations of teaching. This study is one of the first to aggregate the RMP scores of individual instructors within a program to derive a program-wide measure of quality.

Specifically, this study aggregates the RMP scores of individual accounting instructors to construct a measure of overall accounting program quality. To determine the usefulness of the resulting metric, it is then compared to various other external benchmarks of program quality, such as accreditation status, program ranking, and CPA Exam pass rate.

The remainder of this paper is divided into four sections. The first section discusses the RMP rating system and reviews selected research into the validity of RMP scores. The data collection and aggregation methods are discussed in the second section. The third section discusses the external benchmarks of accounting program quality and analyzes their correlation with RMP scores. The paper closes with a summary and discussion of the findings.

RMP BACKGROUND

The RMP website (www.ratemyprofessors.com/categories.jsp) provides a description of the factors on which an instructor is evaluated. For each instructor, students are asked to assess his or her "Helpfulness" and "Clarity." These assessments are then averaged to produce an "Overall Quality" measure. A 5 point scale is used, with an average score of 3.5 - 5.0 being considered "Good Quality." Instructors scoring between 2.5 and 3.4 are classified as "Average Quality," while scores below 2.5 are viewed as "Poor Quality."

Students may also evaluate instructors on their perceived "Easiness." As the RMP website explains:

> *Some students want to know how easy or difficult a class is before they register. Is this class an easy A? How much work needs to be done in order to get a good grade? This category is not included in the Overall Quality rating.*
>
> - *5 = Easy*
> - *1 = Hard*

Another factor assessed by students is their instructor's "Hotness." Although not part of the overall quality average, instructors considered "Hot" have a red chili pepper displayed in their ratings.

The usefulness of RMP ratings has been the subject of much debate. Felton, Koper, Mitchell, and Stinson (2008) question whether the RMP Quality measure actually captures teaching effectiveness, noting the strong positive correlations between the Quality, Easiness, and Hotness scores. Davison and Price (2009) forcefully present the argument against the validity of RMP averages. They point out the lack of control over student postings, noting that:

> *A huge problem with the site is the lack of external validity. There is no way to control who posts a message (whether they actually took an entire course with the instructor) or when a message is posted (we found students posting on the first day of course or as a 10-year alumnus) (p.61).*

Davison and Price (2009) also take issue with RMP's methodology in computing instructor quality:

> *Moreover, the overall score that RMP computes for each instructor is a combination of two highly correlated variables (helpfulness and clarity), and is void of any measure concerning the learning process or knowledge attained. Nevertheless, RMP prominently displays a smiling or frowning face symbol, accordingly, next to each instructor name. The lack of comprehensive measures of teaching effectiveness calls into question the internal validity of the information provided by the website (p. 61).*

Other studies have found that, for all their methodological issues, RMP ratings are positively correlated with traditional student evaluation of teaching (SET) measures. Brown, Baillie, and Fraser (2009) observed these correlations and also noted that in a regression analysis, RMP ratings are significant predictors of traditional student evaluations. Similar correlations between RMP Quality and traditional SET scores are noted by Coladarci and Kornfield (2007), Timmerman (2008), and Felton et al. (2008). The latter conclude that, given the validity concerns of RMP scores, their correlation with traditional SETs "casts considerable doubt on the usefulness of in-class student opinion surveys for purposes of examining quality and effectiveness of teaching" (p. 58).

Previous research has focused on the usefulness and validity of RMP ratings of individual instructors. This study seeks to determine whether, by aggregating individual instructor ratings, a useful measure of overall program quality might be constructed. The method used to collect and aggregate RMP data is discussed in the following section.

DATA SELECTION AND AGGREGATION

There are student ratings for over 23,500 accounting instructors on RMP. Because RMP includes ratings for both current faculty and faculty who have retired or moved to another school, a method was needed to identify an accounting program's current roster of instructors. Accordingly, the online version of the Hasselback Accounting Faculty Directory was used to obtain a more current listing of each school's accounting faculty. This had the effect of limiting the analysis to accounting programs at four year colleges and universities. To reduce data collection to a manageable level, only programs with eight or more faculty members listed as of January 2014 were included in the study. A total of 278 accounting programs met this criterion.

The RMP website was then accessed throughout the Spring of 2014 to collect summary quality and easiness ratings for each faculty member of the sample programs. To prevent the analysis being skewed by instructors with very few ratings, data were collected only for individuals with at least five student ratings. Data were available for 2,420 individual accounting instructors. It should be noted that new ratings on RMP are added frequently and that instructor scores may have changed since the data were first collected.

Individual instructor data were then aggregated to provide average measures of quality for accounting programs. For several programs, sufficient data were available for only one or two individual instructors. To avoid assessments of institutional quality being skewed by such programs, only accounting programs with sufficient data available for five or more instructors were included in the analyses. A total of 223 accounting programs met this criterion. The 223 programs include RMP data for 2,297 individual accounting instructors. Following Felton et al.

(2008), the RMP Quality scores were also adjusted for the perceived easiness of the instructor. Hereafter "Adjusted Quality" is defined as Quality – Easiness. Summary information about the quality and adjusted quality of accounting programs in the sample is presented in Table 1.

Table 1
ACCOUNTING PROGRAM SUMMARY INFORMATION
(n=223)

	Number of Faculty Rated	Total Number of Ratings	Quality	Adjusted Quality
Mean	10.30	297.12	3.54	0.90
Maximum	35.00	2,169.00	4.40	2.29
Minimum	5.00	48.00	2.59	-0.10

The average accounting program had 10.30 instructors with enough RMP ratings to be included in the analyses. On average, nearly 300 separate student ratings combined to create the program wide measure. RMP defines "Good Quality" as an average quality rating of 3.50-5.00. As Table 1 indicates, accounting programs are just above the lower threshold with an average quality score of 3.54. When Easiness scores were deducted, the average accounting program had an adjusted quality rating of 0.90.

Table 2
ACCOUNTING PROGRAM RANKINGS

Panel A: Top 5 Programs - Average Quality Rating

Rank	School Name	Average Quality
1	LaSalle University	4.400
2	University of New Mexico	4.300
3	Southern Methodist University	4.285
4	Northeastern University	4.213
5	University of Washington – Seattle	4.185

Panel B: Top 5 Programs - Adjusted Average Quality Rating (Q-E)

Rank	School Name	Avg. Quality	Avg. Easiness	Adj. Quality
1	University of Georgia	4.062	1.775	2.287
2	University of New Mexico	4.300	2.500	1.800
3	University of Missouri - Kansas City	3.960	2.180	1.780
4	University of Washington – Seattle	4.185	2.471	1.714
5	Brigham Young University	4.069	2.507	1.562

Table 2 presents the top ranked accounting programs in the country using the metrics of average quality and adjusted quality. The top programs in terms of average quality all have ratings above 4.10. Two programs ranked among the top 5 in both unadjusted and adjusted quality – the University of New Mexico and the University of Washington – Seattle.

EXTERNAL BENCHMARKS OF ACCOUNTING PROGRAM QUALITY

This study seeks to determine whether the RMP quality and adjusted quality program scores discussed above are correlated with other external markers of accounting program quality. Although RMP is intended to serve as a measure of classroom performance, many external measures capture differing and/or more comprehensive aspects of quality. Each selected benchmark is briefly discussed below, along with an analysis of its correlation with the RMP scores.

AACSB Accreditation

Among the many ways external observers can judge the quality of an accounting program is whether or not the program is accredited. For business and accounting programs, the premier accreditation is generally considered to be that offered by AACSB International. Trapnell and Williams (2012) note that "(t)he value of AACSB accreditation is that it is an internationally recognized designation of quality supported by continuous improvement" (pp. 1072-1073).

As the AACSB's website (http://accredited.aacsb.edu/) states:

> *95% of surveyed schools reported that AACSB Accreditation is an indicator that their quality is higher than that of non-AACSB-Accredited schools.*
>
> *AACSB-accredited schools have the highest quality faculty, relevant and challenging curriculum, and provide educational and career opportunities that are not found at other business schools.*
>
> *AACSB Accreditation represents the highest standard of achievement for business schools worldwide. Less than 5% of the world's 13,000 business programs have earned AACSB Accreditation.*
>
> *AACSB-accredited schools produce graduates that are highly skilled and more desirable to employers than other non-accredited schools.*

Separate AACSB accreditation of accounting programs is even rarer than business school accreditation. A review of the AACSB website reveals that fewer than 200 programs have both business and accounting accreditation. In their assessment of the benefits and costs of separate accounting accreditation, Gaharan, Chiasson, Foust, and Mauldin (2007) conclude: "Accounting accreditation signals excellence to program stakeholders" (p. 19).

Table 3 examines the correlation between student-based RMP measures of program quality and the external validation of AASB accreditation. Of the 223 schools in the sample, 210 had received accreditation of their business programs from the AACSB. The sample was more

balanced between programs with separate AACSB accounting accreditation (121) and programs without such accreditation (102).

Table 3
AACSB ACCREDITATION AND ACCOUNTING PROGRAM QUALITY

	Unadjusted Average Quality Rating	Adjusted Average Quality Rating (Quality – Easiness)
AACSB – Business Accreditation		
Accredited (n=210)	3.533	0.908
Not Accredited (n=13)	3.644	0.810
Difference	-0.111	0.098
t statistic (*p-value (2 tailed)*)	-1.233 (*0.219*)	1.027 (*0.306*)
AACSB – Accounting Accreditation		
Accredited (n=121)	3.542	0.951
Not Accredited (n=102)	3.536	0.845
Difference	0.006	0.106
t statistic (*p-value (2 tailed)*)	0.140 (*0.889*)	2.397 (***0.017***)

As Table 3 indicates, RMP quality differences between schools with and without AACSB business accreditation were not statistically significant, a result perhaps driven by the small number of schools lacking accreditation. When AACSB accounting accreditation was used as an external indicator of program quality, the unadjusted RMP quality averages were virtually identical for both accredited and unaccredited programs. However, programs with separate AACSB accounting accreditation had significantly higher RMP adjusted quality scores than did unaccredited programs.

Program Rankings

Another external measure of accounting program quality is the evaluation and ranking of a program by knowledgeable observers or by some objective criteria. One example of the former approach is the annual ranking of undergraduate accounting programs conducted by the industry publication *Public Accounting Report*. Their 32nd Annual Professors Survey (*Public Accounting Report*, 2013) surveyed accounting professors nationwide to develop a list of the top accounting programs in the country.

The 2013 report provides a ranking of the top 50 undergraduate accounting programs. Of the programs listed, 34 met the criteria for inclusion in the sample for this study. Table 4 presents a comparison between ranked and unranked sample programs. As the Table indicates, ranked schools had a higher unadjusted quality rating than did schools not included in the rankings. The difference was not statistically significant, however. Results were much stronger using the

adjusted quality metric. Accounting programs included in the *Public Accounting Report* rankings had, on average, significantly higher adjusted quality ratings than did unranked programs.

The *Public Accounting Report* survey uses accounting faculty perceptions to identify high quality accounting programs. Other program rankings follow different approaches. For example, Glover, Prawitt, Summers, and Wood (2012) analyze accounting faculty promotion patterns using a list, originally developed by Trieschmann, Dennis, Northcraft, and Niemi (2000), of the top 75 accounting research institutions. Thirty six of the programs on that list also met the criteria for inclusion in the sample for this study.

Table 4
PROGRAM RANKINGS AND ACCOUNTING PROGRAM QUALITY

	Unadjusted Average Quality Rating	Adjusted Average Quality Rating (Quality – Easiness)
Public Accounting Report Rankings		
Ranked (n=34)	3.624	1.098
Not Ranked (n=189)	3.524	0.867
Difference	0.100	0.231
t statistic (*p-value (2 tailed)*)	1.705 (*0.090*)	3.804 (***0.000***)
"Top 75" Ranked Program		
Ranked (n=36)	3.619	0.865
Not Ranked (n=187)	3.524	0.743
Difference	0.095	0.122
t statistic (*p-value (2 tailed)*)	1.650 (*0.200*)	2.675 (***0.008***)

To determine whether RMP assessments of program teaching effectiveness are correlated with research productivity, sample programs included in the "Top 75" were compared to those not on the list. The results are presented in Table 4.

The results mirror those observed for the *Public Accounting Report* rankings. Although the average unadjusted RMP quality rating for Top 75 programs was higher than for unranked programs, the difference was not statistically significant. When the adjusted RMP quality metric was used, however, Top 75 research programs were found to be of significantly (p=.000) higher quality than their unranked counterparts. Although the link between teaching effectiveness and research productivity is a matter of debate, the results of this study provide evidence that high research accounting programs are also perceived by their students as being of higher quality in the classroom.

CPA Exam Pass Rates

Another commonly used benchmark of accounting program quality is the ability of a program's graduates to successfully sit for the CPA Exam. Programs whose graduates do well

will go to great lengths to promote that fact (e.g., "Canisius College Accounting Graduates Rank 1st Overall in New York State on CPA Exam"). Poor CPA Exam performance can lead to program changes. In one well-known case, in 2004 UCLA abruptly increased the requirements for admission to and completion of its accounting minor. In justifying the change, an accounting spokesman was quoted as saying "We haven't been fulfilling our mission, which is to produce CPAs." (Kersten, 2014).

Table 5
CPA EXAM PASS RATES AND ACCOUNTING PROGRAM QUALITY

Panel A: Correlations

		Unadjusted Average Quality Rating	Adjusted Average Quality Rating (Quality – Easiness)
CPA Exam Pass Rate*	Pearson Correlation	.152	.348
	Sig. (2-tailed)	***.023***	***.000***

Panel B: Quintile Analysis – ANOVA

Unadjusted Average Quality Rating:

	Mean CPA Exam Pass Rate*	Minimum	Maximum
Quintile 1	47.86%	30%	69%
Quintile 2	51.96%	31%	71%
Quintile 3	51.35%	29%	66%
Quintile 4	50.60%	32%	72%
Quintile 5	53.74%	7%	81%
Total	51.11%	7%	81%
F statistic	2.046		
p-value	*.089*		

Adjusted Average Quality Rating (Quality – Easiness):

	Mean CPA Exam Pass Rate*	Minimum	Maximum
Quintile 1	46.39%	30%	65%
Quintile 2	49.93%	31%	67%
Quintile 3	51.09%	32%	71%
Quintile 4	50.40%	7%	70%
Quintile 5	57.74%	44%	81%
Total	51.11%	7%	81%
F statistic	8.378		
p-value	***.000***		

*Summary Performance by Institution Attended – All Testing Events

Data regarding CPA exam pass rates were obtained from the *2013 Uniform CPA Examination Candidate Performance* book published by the National Association of State Boards of Accountancy (NASBA, 2013). The percentage of CPA Exam sections passed by a

program's graduates was used as the measure of success (Appendix A: Summary Performance by Institution Attended – All Testing Events). NASBA (2013) reports an average pass rate for all jurisdictions of 49.4%. The average pass rate for the sample was slightly higher at 51.1%.

Table 5 presents the correlations between both RMP average quality measures and CPA Exam pass rates. As Panel A of the Table makes clear, the correlation between the variables is positive and statistically significant. The correlation between CPA Exam pass rates and the unadjusted RMP average quality measure is significant at the p=.023 level. Consistent with the other variables examined, results for the adjusted RMP average quality measure were more pronounced, with a correlation significant at the p=.000 level.

Although Panel A of Table 5 provides evidence of a positive correlation between RMP quality measures and CPA Exam pass rates, it provides little insight into the nature of the relation. To further investigate this issue, the sample was divided into quintiles based on RMP quality scores and a one-way analysis of variance was conducted, using CPA Exam pass rates as the factor. Quintile 1 contains the sample's lowest RMP average quality scores while Quintile 5 contains the highest. Sample quintiles were computed separately for both unadjusted and adjusted RMP average quality measures. The results of this analysis are presented in Panel B of Table 5.

As Panel B of Table 5 indicates, the average CPA Exam pass rate of the lowest sample quintile based on unadjusted RMP quality scores was 47.86%. The average for the highest quintile was somewhat higher at 53.74%. However differences among the middle three quintiles were slight, leading to an overall F statistic that did not meet traditional levels of statistical significance ($F = 2.046$, $p = .089$).

Panel B also reports the results when the quintiles were recalculated using adjusted RMP quality scores. Following the pattern of earlier analyses, results were much stronger. Although the middle three quintiles were again closely grouped, the difference in CPA Exam pass rates between the lowest quintile (46.39%) and the highest (57.74%) was striking. The results of the ANOVA were statistically significant ($F = 8.378$, $p = .000$). At a minimum, Table 5 provides evidence that graduates from accounting programs with the highest RMP adjusted quality scores have higher CPA Exam pass rates than those graduating from the lowest RMP ranked programs.

SUMMARY AND CONCLUSIONS

This study provides evidence that student evaluations of accounting instructor quality on RateMyProfessors.com are, when aggregated, correlated with several external benchmarks of accounting program quality. Although the components of RMP scores for individual instructors have been analyzed by prior research, this is the first study to combine those scores to create a program-wide measure of quality.

Two measures of quality were employed. The first was the unadjusted RMP "Overall Quality" average. The second, following Felton et al. (2008), was an adjusted quality metric, subtracting the perceived easiness of the instructor from his or her assessed quality. This adjusted quality measure was consistently more strongly associated with external measures of program quality.

The external benchmarks addressed accounting program quality from several perspectives. Accounting programs with AACSB accounting accreditation had higher average adjusted quality scores than did programs lacking such accreditation. Programs ranked in *Public Accounting Report's* Annual Professors Survey had higher average adjusted quality scores than did unranked programs. The positive correlation extended to quality metrics not obviously related to classroom performance, as accounting programs considered among the top 75 research institutions had higher average adjusted quality scores than did less research oriented programs. And finally, RMP adjusted quality scores were associated with higher CPA Exam pass rates. It may be that a program's overall commitment to quality manifests itself in several ways.

Several limitations to this study may potentially confound the results observed. Limiting the sample to institutions with eight or more faculty listed in the Hasselback Accounting Faculty Directory and to faculty with five or more RMP ratings may have biased the results. RMP averages can reflect many years of student ratings, while some of the external quality measures, such as CPA Exam pass rates, were taken from a single year.

Despite these potential limitations, the breadth of external benchmarks associated with adjusted RMP quality averages is striking. Prior research (e.g., Coladarci and Kornfield 2007) has linked individual instructor RMP scores to other individual measures such as in-class student evaluations of instruction. The results of this study demonstrate that aggregating individual accounting instructor RMP scores can provide a useful measure of the overall quality of an accounting program.

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