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**Susan Shurden
Co-Editor
Lander University**

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LETTER FROM THE EDITORS

Welcome to the *Academy of Educational Leadership Journal*, the official journal of the Academy of Educational Leadership. The AEL is an affiliate of the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The mission of the *AELJ* is to publish theoretical, empirical, practical or pedagogic manuscripts in education. Its objective is to expand the boundaries of the literature by supporting the exchange of ideas and insights which further the understanding of education.

The articles contained in this volume have been double blind refereed. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

We intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

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Michael Shurden
and
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STUDENT RESPONSE TO RISK IN CLASSROOM LEARNING GAMES

Sherry Robinson,
Penn State University/Buskerud University College

ABSTRACT

Today's university students often view traditional classroom activities as boring or routine. Incorporating games and game-like elements into class activities can generate excitement, anticipation and engagement with other students and the course content. This is especially important in an era when students expect to be entertained or at least engaged. Recent studies in neuroscience show that adding an element of chance and risk to classroom learning games can have a positive influence on learning. This study presents a background on the use of learning games and the results of research involving learning games involving risk-taking and uncertainty.

INTRODUCTION

Ideal learning situations provide opportunities for immediate feedback and student involvement (Garris, Ahlers & Diskell, 2002; Hequet, 1995; Foreman, 2003). Ramaley and Zia (2005) stress that most learners have a strong need for a social, active, learner-centered environment, but this is especially true for the Millennial generation. Because they have grown up with TV games shows, interactive video games and the internet as forms of entertainment and education, they expect that education should be entertaining. They simply tune out if it does not meet their expectations. In contrast, they are willing to devote a great deal of time and effort to master new games and electronic devices (Prensky, 2001).

Games have become an established method for teachers to engage their students (Bergin, 1999; Ritzko & Robinson, 2006; Robinson, 2007; Rotter, 2004; Sugar & Takacs, 1999). The type of mild stress associated with playing games could also aid learning (Howard-Jones, 2009). Such fun and engaging learning activities are likely to be very effective in connecting with Millennials. The following section presents a brief review of the literature on the effects of risk-taking and uncertainty on learning games. The results of a study examining students' reactions to learning games incorporating uncertainty and chance are then presented.

RISK-TAKING IN LEARNING GAMES

Prensky (2001) highlights a variety of positive characteristics of digital games that are beneficial in educational activities. In addition to being fun, they provide an opportunity for interactivity and social interaction. The rules and objectives of the games provide a structure for competition, while leading to a chance to obtain feedback and to win. Although Prensky was describing video games, simple non-electronic games can also provide these positive experiences. Over 25 years ago, Cruickshank and Telfer (1980) pointed out that games promote a responsive environment in which learners immediately know how they are doing.

Question and answer games resembling the TV show Jeopardy! Are probably the most commonly used classroom learning games (e.g. Azriel, Erthal, & Starr, 2005; Benek-Rivera & Mathews, 2004; Gast & Leatham, 2005; Grabowski & Price, 2003; Massey, Brown & Johnston, 2005; Revere, 2004, Ritzko & Robinson, 2006). One study examining the effectiveness of Jeopardy-type games found that 80% of student participants gave it the highest ratings for usefulness in learning and reviewing material (Ritzko & Robinson, 2006, p. 46). Such learning games can reinforce important information while at the same time avoiding rote repetition (Rotter, 2004). As material is reviewed and recall becomes more automatic, mental resources are freed up to learn new material (Howard-Jones, 2009).

Fairness is a key element in effective learning games (Robinson, 2012). Instructors often try to reduce chance as much as possible to make a game seem fair, but the danger is that the "game" becomes more like a public quiz or test. Introducing uncertainty into games can also make them more pleasurable because they feel more like games (Hong, Hwang, Lu, Cheng, Lee & Linn, 2009; Howard-Jones, Bogacz, Yoo, Leonards & Demetriou, 2010, 2011; Robinson, 2007; Schell, 2008). Robinson (2007) determined that university students prefer learning games that are not based strictly on skill, but involve some element of chance. Dealing with the younger set (age 11-12), Howard-Jones and associates (2009) found that students preferred to ask questions from "Mr. Uncertain" (meaning a correct answer would be rewarded with either 2 or 0 points based on the toss of an animated coin) rather than from "Mr. Certain" (meaning a correct answer would receive 1 point). Mr. Uncertain was chosen approximately 60% of the time, and 30 of 50 participants chose Mr. Uncertain more than half the time. Although the content consisted of math questions, Mr. Uncertain and Mr. Certain were part of a game. Research has shown that more certainty is desired when the task is viewed as school work rather than a game (Clifford, 1988; Clifford & Chou, 1991; Harter, 1978).

Research on risk-taking (e.g. Atkinson, 1957; Fiorillo, Tobler & Schultz, 2003; Howard-Jones, 2010, 2011; Howard-Jones et al., 2010, 2011; Howard-Jones & Demetriou, 2009) has shown that uncertainty in a learning game can enhance players' experience in several ways, including changes in brain chemistry and activity. Fiorillo and associates (2003) performed experiments using reinforcement in which subjects received a reward after a stimulus was presented, so that the subjects associated the reward with that stimulus. When presented with the

stimulus (but before the reward was received), participants' brains released dopamine. When the reward was actually received, little additional dopamine was generated, assumedly because the reward was expected and predictable. A separate stimulus was followed by a reward only 50% of the time. This stimulus generated an equal amount of dopamine compared to the other stimulus. However, a second shot of dopamine was released when the reward appeared (or not), creating more overall dopamine than when the reward was predictably received or completely unexpected. The highest level of sustained activation of dopamine neurons was shown at a 50% level of uncertainty, followed by 25%/75%. These results are consistent with Atkinson (1957), who found that 50% chance increases motivation. These results suggest that uncertainty in receiving awards can lead to motivation and may help explain why people enjoy the uncertainty, risk and reward involved in gambling (Berridge & Robinson, 1998; Howard-Jones et al. 2011; Shizgal & Arvanitogiannis, 2003).

The release of dopamine may also lead to improved learning, especially when immersive gaming is used to teach information (Adcock, 2006; Callan & Schweighofer, 2008; Fiorillo et al., 2003; Lisman & Grace, 2005, Howard-Jones, 2010; Howard-Jones & Demetriou, 2009). Howard-Jones and Demetriou (2009) found from studies using adults that gaming can make learning more engaging and emotional. Enjoyable learning activities can produce positive emotions and also contribute to skill development (Baker, Herman & Yeh, 1981; Bergin, 1999). While winning a reward creates positive emotions, additional research on reactions to competitors who give incorrect answers shows that competitors' losses are perceived as unexpected rewards as the player learns to avoid those mistakes (Howard-Jones et al., 2010).

Based on the research about the effects of risk-taking and chance on learning and learning games, a series of games were designed and used in university classrooms. The following section describes the games and reports the results of student surveys regarding their behaviors regarding risk and their opinions about chance in learning games.

METHODOLOGY AND RESULTS

This study explores university students' reactions to learning games that involve uncertainty. Inspired by the Mr. Certain/Mr. Uncertain game designed by Howard-Jones and Demetriou (2009), the instructor developed a Double or Nothing (DoN) option that was integrated into a variety of classroom learning games, all of which involved team play. This format presented players with the choice of "staying," which would result in winning one point for a correct answer, or "going DoN," which would result in either two points or no points based on the flip of an actual coin. In some games, players made the decision to stay or go DoN for a series of questions before the answers were given and the coin was flipped. For example, in one game, student groups received a list of questions, indicated their answers and whether they were going to stay or go DoN for each question (groups could choose any mix of staying or going DoN, rather than just choosing one alternative). They then traded papers with another group (to

both ensure fairness and increase social interaction). The answer to each question was discussed before the coin was flipped and points were awarded to the winners. In a slightly different game, the question was asked, groups made their decisions regarding the answer and whether they would stay or go DoN, traded papers, and then the answer was given and the coin was flipped before going on to the next question. The instructor preferred the latter format, which was more similar to the game featuring Mr. Certain/Mr. Uncertain, because it appeared to create more engagement with each question, but this was not always logistically feasible.

The DoN format was used in several games in three university courses. At the end of each course, students voluntarily completed surveys regarding their preferences and experiences with the learning games. A total of 61 participants completed survey (32 women, 28 men). Participants were asked an open-ended question regarding the percentage of the time (0-100%) that they “went DoN” during the games. A total of 15 different answers were given by the 61 participants, but 4 answers accounted for 66.7% of total responses (see Table 1). The most common answer was 50% (23.3% of respondents), followed by 100% and 0% (16.7% each) and 25% (10%). The results of a t-test (3.840, $p < .001$) show that the mean for women was 32.3% while the mean for men was significantly higher at 63.0%. It is clear from the side-by-side comparison of the answers that men were more likely to go DoN as 32.1% of men answered 90-100% while only 9.7% of women went DoN that often. In fact, the remaining women (90.3%) all went DoN 50% of the time or less. Only 42.9% of men went DoN 50% of the time or less. For men, 100% risk was the single most popular answer, with 25.0% reporting they always went DoN. In contrast, 25.8% of women never went DoN, and 50% risk was the most popular response (29.0%).

Table 1: Percentage of Players “Going DoN”

Percentage of the time player went DoN	Percent of players – Total	Percent of players - Women	Percent of players - Men
100%	16.7%	6.5%	25.0%
90	5.0	3.2	7.1
85	1.7	0	3.6
80	3.3	0	7.1
75	1.7	0	3.6
70	1.7	0	3.6
60	3.3	0	7.1
50	23.3	29.0	17.9
40	3.3	3.2	3.6
30	3.3	6.5	0
25	10.0	12.9	7.1
20	3.3	3.2	3.6
15	5.0	6.5	3.6
10	1.7	3.2	0
0	16.7	25.8	7.1

Students were also asked to rate on a scale of 1 (not at all) to 10 (very much) the degree to which they preferred games with the DoN option, as some of the games that were played did not involve the DoN option. Almost 60% of students rated their preference as 6 or above, with 41.7% rating their preference as either 7 or 8 (see Table 2). Men were again more likely to give higher ratings. Their mean rating was 6.75 compared to women's 5.06 ($t=2.505$, $p<.015$). This difference between men's and women's attitudes is more clearly seen in the distribution of the ratings. A full 75% of men, but only 43.8% of women, rated their preference as 6 or higher. At the top of the scale, 14.3% of men but only 3.1% of women rated their preference as 10 out of 10. In contrast, half as many men (7.1%) and four times as many women (12.5%) rated their preference as 1 out of 10. A closer look at the data shows that the same 7.1% of men who never went DoN also rated their game format preference as 1. Among women, 25.8% never went DoN, yet only 12.5% rated their game format preference as 1. In fact, the preference ratings among women who never went DoN went as high as 8, and averaged 4.5. Taken together, these findings suggest that men are generally more likely than women to go DoN rather than "staying" and are also more likely to prefer learning games that provide this element of risk. However, women who never go DoN do not necessarily dislike the DoN game format, and some of them are actually in the high DoN preference group. It is possible that these women used "staying" as a strategy as they would always receive points for correct answers whereas other teams that answered correctly would earn 0 points if the coin flip went against them. Informal comments between players revealed that some students considered the relative scores when choosing whether to go DoN, while other comments indicated that students chose to go DoN when they did not know the answer and therefore had less to lose.

Table 2: Percentage of Student Players Who Preferred the DoN Format

DoN Preference Rating	Percent of players – Total	Percent of players – Women	Percent of players - Men
10	8.3%	3.1%	14.3%
9	3.3	6.3	0
8	21.7	15.6	28.6
7	20.0	9.4	32.1
6	5.0	9.4	0
5	13.3	15.6	10.7
4	3.3	6.3	0
3	8.3	12.5	3.6
2	6.7	9.4	3.6
1	10.0	12.5	7.1

A survey question regarding preferred level of chance in a learning game provided five options: 0% (complete skill without any element of chance such as in a quiz), 25%, 50%, 75% and 100% (complete random chance such as in a lottery drawing). None of the students wanted games that were solely based on chance, and only 9.4% of the women and none of the men preferred 75% chance (see Table 3). The most popular answers were 50% and 75% chance,

which is generally consistent with previous research (Atkinson, 1957; Howard-Jones & Demetriou, 2009). Although it first appears that women are more likely to prefer higher levels of chance than men, a Chi-square test showed no statistically significant association (Chi-square = 4.420, $p < .220$).

Table 3: Chance Preferences			
Preferred Degree of Chance	Percent of players – Total	Percent of players – Women	Percent of players - Men
100%	0%	0%	0%
75	5.0	9.4	0
50	45.0	46.9	42.9
25	40.0	31.3	50.0
0	10.0	12.5	7.1

To further explore and analyze the data, high and low DoN preference groups were created with those who rated their preferences as 7 or higher being categorized as high DoN preference. The rest were classified as low DoN preference. This resulted in 34.4% of women and 75% of men being placed in the high DoN preference group. The results of a Chi-square test (Chi-square=6.000, $p < .014$) showed an association between sex and high/low DoN preference.

There was a statistically significant association between chance preference (0-100%) and high/low DoN preference. The overall results showed a statistically significant association between these two variables (Chi-square=10.501, $p < .015$). This is logical given that people who prefer higher levels of chance are also likely to prefer the option to go DoN. Among men, who had already been shown to be more likely to prefer the option to go DoN, there was also an association between high/low DoN preference and preferred level of chance (Chi-square=10.857, $p < .004$). Men in the high DoN preference category were more likely to prefer 50% chance (57.1% vs. 28.6%) while 71.4% of men in the low DoN preference category preferred 25% chance (compared to 42.9% of high DoN preference men), and 28.6% preferred 0% chance (compared to 0% of the high DoN preference men). Among women, preferences were more spread out and no statistically significant association was shown (Chi-square=3.081, $p < .379$). This is also logical given that more women liked the option to go DoN even though they did not go DoN as frequently.

Table 4: Percentage of Players “Going DoN”						
Preferred degree of chance	Percent of players – Total		Percent of players - Women		Percent of players – Men	
	High DoN preference	Low DoN preference	High DoN preference	Low DoN preference	High DoN preference	Low DoN preference
100%	0%	0%	0%	0%	0%	0%
75	2.8	8.0	7.1	11.1	0	0
50	61.1	24.0	64.3	33.3	57.1	28.6
25	33.3	48.0	21.4	38.9	42.9	71.4
0	2.8	20.0	7.1	16.7	0	28.6

This study also examined the importance of prizes because prizes might provide motivation to play well. The survey provided a scale of 1 (not at all important) to 10 (very important), but the scores were later merged into 5 categories for analysis because some ratings were not chosen and the 5 categories seemed to adequately reflect participants' opinions (see Table 5). Prizes are viewed as quite important to a considerable proportion of students as 68.8% gave prize importance a rating of 7 or higher. This does not necessarily mean a physical prize. Several students named extra points toward their final grades as the most desirable prize. Small pieces of candy that were presented to the winners at the end of games were also popular. It is unclear whether it is the actual candy or the public recognition that is most valued. Chi-square analysis showed there was an association between sex and the rating given to the importance of a prize (Chi-square=9.638, $p<.047$). Very similar proportions of women (30.3%) and men (32.1%) rated prize importance as 9 or 10, but women were more likely to say a prize was less important: 27.3% of women but only 3.6% of men rated prize importance between 1 and 4. In contrast, 85.7% of men but only 54.5% of women rated prize importance as 7 or higher.

It was expected that chance preference and high/low DoN preference would be related to prize importance, but no statistically significant associations were found. Therefore, the importance of receiving a prize may not be related to the engagement that accompanies the risk element of games played in the DoN format. That is, simply "winning" may be the best prize of all.

Table 5: Importance of a Prize			
Importance of a prize rating	Percent of players – Total	Percent of players - Women	Percent of players - Men
9-10	31.1%	30.3%	32.1%
7-8	37.7	24.2	53.6
5-6	14.8	18.2	10.7
3-4	8.2	15.2	0
1-2	8.2	12.1	3.6

Students were provided an empty space on the paper survey and invited to write comments (positive or negative) about learning games and their opinions of the DoN format. The vast majority of comments were positive. The most negative comment was written by a participant who had rated his or her DoN preference as 7 and had gone DoN 75% of the time:

"the point of a game is to do better on the test, so this stuff doesn't matter much to me."

Another student, who had gone DoN 50% of the time, but had a preference rating of only 3, made a comment about learning games:

"like them, like [name of game] better than [name of game], no fan of DoN"

These were the only two comments that were not completely positive, despite the instructor's request for negative as well as positive feedback. Given some students did not write comments, it cannot be assumed that all other students love playing learning games, but the evidence suggests that the majority of students enjoy having a moderate number of them included as a part of class activities.

The usefulness of games as a tool for studying was mentioned by a several students, one of whom liked the fact that the games showed him/her the areas in which further study was needed. Overall, games were seen by many as a useful method for learning course material in a fun manner that actually made learning easier:

"like them, it shows what you really don't know"

"like the games, help me remember better"

"I like learning games because they help us retain what we have learned"

"great way to demonstrate your knowledge/abilities to the class--what you have learned. DoN is cool"

"learning games are fun! When I have fun it's easier to learn"

"they are fun and keep class interesting, help you learn, I like DoN"

"most of the games were fun and learning by doing. DoN was great!"

"fun way to learn and everyone is involved"

"games are interesting, they keep the class involved"

As shown in some of the above comments, the DoN format was said to increase the level of fun and excitement in games as it provided a level of uncertainty that influenced scores. One participant provided insight into playing strategy:

"if I know it's right I stay, if not sure, go double"

"I like learning games because they often force us to think creative. DoN is really fun! It makes you choose between taking risks or staying on the safe side and the most fun part by choosing DoN is that you never know what you are going to get!"

“DoN is fun and it helps vary the scores

“DoN is more exciting”

“I like DoN - it's exciting”

“hilarious, it's fun being kind of immature sometimes ”

Among some participants, the competition was an attractive element of a learning game, so winning the game was important. Receiving a prize was viewed as a motivator to learn the material.

“learning games are fun because it's a competition where a winner is chosen ”

“I like learning games, challenging, DoN is interesting, work harder for prizes”

Taken together, these comments support the instructor's informal assessment that students were enjoying playing together in teams, especially in the DoN format. Similar to the results reported by Howard-Jones and Demetriou (2009), receiving nothing for a correct answer when going DoN due to a negative outcome in the coin flip was viewed as a setback that would simply be overcome the next time. Receiving double points was similar to a major sports victory in that some students put their arms in the air and shouted in triumph. By allowing players to choose whether to stay or go DoN for each question, no group was forced to go DoN and those with conservative natures could play the entire game without this element of uncertainty, as shown by the 16.7% of players who never went DoN. At the same time, the addition of the DoN option clearly created a positive experience for many students.

CONCLUSIONS

According to Howard-Jones and associates (2011), “If we wish to imbue learning with the excitement experienced by computer game players, then we need to understand more about the processes linking cognition, emotion, and motivation” (p. 33). The results of this study show that most students prefer a level of chance greater than 0% when playing learning games. That is, they are willing to take some amount of risk rather than relying solely on skill for assured results.

Many students, especially men, enjoy the risk-taking associated with the DoN option added to learning games. While it was beyond the scope of this study to determine whether actual learning was enhanced or that brain chemistry was changed during game play, many students reported that they believed they learned during games and found the DoN option to be

fun. Several associated fun with learning and become motivated to learn. Cognition, emotion and motivation seemed to come together in the classroom games featuring DoN.

The amount of chance most students desired was between 50 and 25%. Although 50% has been found to be the optimal level of chance for increasing dopamine levels (Fiorillo et al., 2003), Clifford and Chou (1991) determined that students prefer only about 12% (88% confident) in activities associated with school. This study provided only 5 categories for risk, with 25% and 0% being the nearest to 12%. Given that the learning games included in this study were not related directly to grades, players may have been more willing to take moderate risks. The results of this study support previous findings (Clifford & Chou, 1991; Howard-Jones & Demetriou, 2009; Robinson, 2007) regarding students' desire for games that are not based solely on skill.

Howard-Jones and Demetriou (2009) report that participants playing with Mr. Uncertain/Mr. Certain saw random chance as providing a way to make up for differences in ability. Students perceived that the computer against which they played had superior knowledge, but the element of chance that allowed them to sometimes receive double points leveled the playing field a bit. The student comments in this research echoed that belief. Transforming the activity from a simple a test of skill to a game in which chance played more of a role made the game more exciting. They also perceived that it increased the level of fairness. This is surprising given that fairness and random chance are often viewed as opposing concepts.

Although the instructor expressed a preference for the format originally used in Mr. Certain/Mr. Uncertain in which each question, answer and coin flip were completed before moving on to the next question, student preference about format was not included in this study. Future research will ask players which format they prefer and the reasoning behind their opinions. Given that all games were played in groups, individual players are likely to have gone DoN even when they personally would have chosen to stay and vice versa. It may also have been a flaw in the design of the study that participants reported what their group chose even though it went against what they personally would have chosen. On the other hand, the group discussion surrounding the decision of whether to go DoN may have led to greater social interaction, and may have enticed conservative students to take more risks or risk-seeking students to be more conservative. This is an area for future research that will examine the influence of groups, especially mixed-gender groups. Yet another area for further investigation is the matter of strategy. Women were less likely to go DoN, but most of those who never went DoN gave moderate ratings for game format preference. This suggests they may have used "staying" as a strategy in the game.

Students today are a new generation with different ideas and expectations. While they find it difficult to pay attention when playing the role of passive receiver in communication, they willingly engage in active learning, especially when it involves a social environment (Baker et al., 1981; Bergin, 1999; Robinson, 2007). Bergin (1999) states, "Sometimes, as students engage a task for the rewards it earns, they develop competence at the task and actually develop intrinsic

interest in the task” (p. 92). Students may not find a particular topic to be of great interest, but they may be willing to learn about it in order to do well at a game which they **do** find engaging, possibly developing an interest in the topic itself. Thus, well-designed learning games can help provide appropriate activities that fulfill the goals of the instructor as well as the needs and desires of students. Given the results of this study, this system may especially be effective when designing activities for males.

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IMPROVING RETENTION AMONG COLLEGE STUDENTS: INVESTIGATING THE UTILIZATION OF VIRTUALIZED ADVISING

Lemaro R. Thompson, Savannah State University

Leon C. Prieto, Clayton State University

ABSTRACT

Virtualized advising is a means by which advising is provided through an impersonal means such as via an online advising program. This method of advising students has been implemented in numerous universities across the United States. Benefits of such an advising system include consistent quality and 24/7 availability. This paper investigates the antecedents of advisor satisfaction to determine if a virtualized advising system can successfully replicate the key components of face-to-face advising for a majority black institution, in which face-to-face (traditional) approach is being utilized. Additionally this study also explores the influence advisor satisfaction has on students' motivation to matriculate. Findings indicate that a virtualized advising system would not successfully replicate the encouragement factor found in face-to-face advising. Also financial strain was found to be a significant predictor of advisor satisfaction but advisor satisfaction was not found to be a significant predictor of student motivation.

Keywords: Advisor Satisfaction, Motivation, Retention, Financial, Virtualized Advising

INTRODUCTION

The success of any college depends on its ability to retain its students (Archer & Cooper, 1999). There are many factors external to the university which may cause the disruption of a student's education such as serious illness, financial problems or family issues. However, an important factor which can significantly influence retention is effective advising. Jones and Williams (2006) indicate that effective advising leads to improved retention of students during their four year educational process. Most universities conduct academic advising by having students report to faculty members in the area of their discipline to be advised. However, it is disconcerting to note that despite the crucial role that advising plays in the successful matriculation of students, most universities provide little or no incentives for the provision of high quality advising (Hossler, Ziskin, & Gross, 2009). Although this concern is widespread among college administrators, substantial incentives are not provided to professors nor are

professional advisors hired because of the cost involved with the implementation of these measures.

The solution to the problem of inconsistent advising quality would be to outsource this task to a convenient, easy to use, 24/7 access virtualized advising system. Many universities utilize virtualized advising. For example, Fitchburg State Colleges uses virtualized advising which allows students to view videos of individuals answering frequently asked questions. While Texas Tech University has developed a software program called ECOACH (Electronic College Optimum Advisor & Career Helper) which is an innovative web-based tool to aid students and advisors. James Gregory, director of ECOACH, says that the tools have provided assessment and information that makes the advising process more objective and more efficient and has allowed professors to use time which was previously used for mapping courses to dealing with personal issues (National Academic Advising Association, 2008). Other universities which utilize similar advising programs include Indiana Wesleyan University, Michigan State University, and the University of Kentucky. This indicates that virtualized advising is a feasible concept. However, the issue this paper seeks to address is not the possibility of implementation but does virtualized advising provide comparable quality to that of face-to-face advising? Or are the differences between the two means of advising negligible? To answer these questions this paper will investigate the various components of the advisor satisfaction construct. Then these factors will be examined to determine if virtualized advising can imitate these elements. Furthermore the paper will analyze the influence advising has on motivation and student satisfaction. Additional consideration will be given to the means by which financial strain affects students' motivation.

ADVISOR SATISFACTION

A student's relationship with their advisor is one of the most important factors which influences their success, and thus satisfaction of their university environment (Rice, et al., 2009). Satisfied advisees reported that there existed a positive alliance with their advisors, continual improvements over time and they were more comfortable disclosing professional information. Unsatisfied students described their relationships as "shallow, businesslike, or negative" (Schlosser, Knox, Moskovitz, & Hill, 2003). Perceptions of poor advisement and interpersonal relationship issues were also found to be key causes of advisor dissatisfaction (Rice, et al., 2009). These poor perceptions of advisement were caused by factors such as inaccessibility or lack of guidance. Interpersonal relationship issues were mostly caused by the frustration experienced by students who felt an "absence of support from their advisor" (Rice, et al., 2009). This same study found that 25% of the advisees would change advisors if it were possible. These results indicate that advisors need to set aside time to reach out to provide the necessary support and encouragement to facilitate students' successful transition to college (Ableman & Molina, 2001). Since an advisor's availability and knowledge are important contributors to advisor satisfaction which in turn is an important contributor to university satisfaction, we offer the following hypotheses:

H1: Advisor Satisfaction is positively related to Advisor Availability

H2: Advisor Satisfaction is positively related to Advisor Knowledge

H3: Advisor Satisfaction is positively related to University Satisfaction

MOTIVATION

The success of any academic program depends on being able to attract and retain quality students (Dodge, Mitchell, & Mensch, 2009). However, it is not likely that students will persist in quality programs unless they are motivated to put forth a strong effort to obtain their respective degrees. In 1975, Tinto developed the Student Integration Model (SIM) which suggests that a student must have a commitment to his or her respective institution and be motivated towards the goal of completing a college degree in order to persist as a college student (Tinto, 1988). This claim has been supported by numerous studies which show the dynamic and essential role which motivation plays in providing students the confidence to envision themselves as proficient students and therefore impels them to finish their desired course of study (Bandura, 2001; Schunk & Pajares, 2002). Motivation is a complex construct as there may be different reasons for the drive that people experience (Rogers & Summers, 2008). The two extreme forms of motivation are intrinsic and extrinsic motivation. A person who is intrinsically motivated engages in a task for the enjoyment of the task itself. The individual that is extrinsically motivated engage in a task due to factors which are external or outside an individual (Bean & Eaton, 2000). Cokley (2003) states that the majority of lower socioeconomic status students are more inclined to external forms of motivation. This has the implication of suggesting that academic advisors play a large role in positively increasing students' motivation and resultantly their persistence to matriculate. The more time students spend with excellent advisors who encourage, the more one might expect these students would be motivated to matriculate. Therefore we propose the following hypothesis:

H4: Motivation is positively related to Advisor Satisfaction

FINANCIAL STRAIN

One reason why most students of low socioeconomic status are externally motivated rather than internally motivates is because their financial plight causes them to view the notion of "education for its own sake" as an ill-afforded luxury (Cokley, 2003). This means that students with strained financial resources cannot afford to expend their limited financial resources and time on projects which do not at least promise increased opportunities for upward mobility. While a student's state of poverty might be a contributor to their added pursuit of a college degree, research conducted by Bowen, Chingos, and McPherson (2009) indicated that financial strain experienced by students have the tendency to leave students motivated but unable/ill prepared to pursue their goals of obtaining a college degree. Bowen, Chingos, and McPherson (2009) come to the conclusion in their ground breaking book *Crossing the Finish Line* that

money matters. They note that the “net cost of going to college and a family’s resources together significantly affect both the probability that a student will graduate.” The trio of researchers also notes that reliable, simple and predictable provision of financial aid is important not just for initial access to college but to success in graduating. Research has indicated that matriculation rates are compromised because students which come from low-income families are forced to leave college due to unforeseen emergencies such as family crises. Since financial strain or difficulties on average tends to lead to reduced motivation, we offer the following hypothesis:

H5: Financial Strain is inversely related to Motivation

RESEARCH METHODS

Participants and Procedures

The participants were students (121) of a historically black university located in the South. Students at this school conduct advising via a traditional (face-to-face) method. This method involves students signing up for slots to be advised or visiting their advisor during their office hours to receive guidance on which classes they should select for the upcoming school year. The respondents represented the College of Business Administration. Survey packets were distributed the spring semester of 2010. Each survey packet included the 6 scales plus a background information form, which captured demographic information. The authors distributed and received 121 surveys for an overall response rate of 100 percent. Females represented 50% of the sample. Most research participants (92.6%) were between the ages of 18 to 29 years of age and had a junior rank (31.4%). The majority of the participants were African American (85.1%) and full-time students (90.9%). The majority of the participants were Management (40.5%), Other (29.8%), Accounting (10.7%), and Marketing (10.7%) Information Systems (5%), Masters of Business Administration (3.3%) majors.

Measurement of Variables

Advisor Satisfaction was measured using a 3-item questionnaire was adapted from Rice, et al. (2009). The instrument uses a 7-point likert response scale that ranges from Strongly Disagree to Strongly Agree. An example item is “I am satisfied with my advisor.” High scores are indicative of high levels of satisfaction with one’s advisor. The internal consistencies for the six questionnaires were reported using Cronbach’s alpha reliability estimates. The alpha for the advisor satisfaction score was 0.940. This score has exceeded the minimum threshold level of 0.70 (Hair, Anderson, Tatham & Black, 1998; Nunnally, 1978).

Motivation was measured using an 8-item questionnaire adapted from Caison (2007). The instrument uses a 5-point likert response scale that ranges from Strongly Disagree to Strongly Agree. An example item is “It is important for me to graduate from college.” Large numbers were indicative of greater motivation to matriculate. The Cronbach’s alpha reliability estimate was 0.774.

The authors of this study measured advisor knowledge using a 3-item measure with a 7-point likert response scale in which the questions were adapted from Pascarella and Terenzini (1983). The response scale ranges from Strongly Agree to Strongly Disagree. An example item is “My advisor is knowledgeable about the classes I should take and the prerequisites for those classes.” The reliability estimate was 0.763.

Advisor Availability, a 5-item measure, was used to assess time spent and the availability spent with one’s advisor. This scale was adapted from (Pascarella & Terenzini, 1983). The instrument uses a 7-point likert response scale (Strongly Disagree to Strongly Agree). An example item is “I am satisfied with the amount and quality of time spent with my advisor.” High scores are indicative of high levels of advisor availability. The reliability estimate (Cronbach alpha) was 0.789.

The University Satisfaction Scale is a 4-item measure; it was used to assess university satisfaction in the present study (Rode, Arthaud-Day, Mooney, Near, Bladwin, & Bommer 2005). An example item is “I am satisfied with my experience at my current university.” The reliability estimate was 0.949.

Financial strain was measured was measured using a 16-item Financial Strain Questionnaire (Aldana & Liljenquist, 1998). The instrument uses a 5-point likert response scale that ranges from Never to Always. An example item is “I don’t have enough money to pay my bills.” High scores are indicative of high levels of financial strain. The reliability estimate (Cronbach Alpha) was 0.881.

ANALYSIS

To test the hypotheses, structural equation modeling (path analysis) was employed LISREL (8.80) was used to develop and test all structural models. Structural equation modeling (SEM) is sophisticated technique that established relationships between independent and dependent variables simultaneously (Bollen, 1989; Hair et al., 1998). It also accounts for measurement errors by providing various indices on the fitness of proposed covariance structural model and the data (Bollen, 1989). SEM has been used in several fields such as psychology, econometrics, biology, sociology, education, marketing, organizational behavior, and genetics (Hair et al., 1998).

Figure 1 displays the path analysis model that was evaluated in this research. In the model, financial strain, advisor availability, and advisor knowledge were expected to predict motivation and advisor satisfaction. Furthermore, motivation and advisor satisfaction were in turn expected to predict university satisfaction.

The advising satisfaction model presented in Figure 1 was tested using structural equation modeling (path analysis) by using LISREL 8.80 (Jöreskog & Sörbom, 2006) to evaluate the research hypotheses. The covariance matrix was used as the input for the model and the maximum likelihood estimate was employed to produce the model parameters. The model achieved satisfactory fit to the data; the fit indices for the model are shown in Table 1 and the means, standard deviations, reliability estimates, and zero-order correlations are displayed in Table 2.

Table 1: Advisor Satisfaction Model

Model	χ^2 (df)	P-value	RMSEA	GFI	NFI	CFI
Adviso Satisfaction	4.23(6)	0.64558	0.000	0.99	0.99	1.00

Statistics are based on a sample of 121
Degrees of freedom are in parentheses after the Chi-square value.
RMSEA = Root mean square error of approximation; GFI = Goodness-of-fit index;
CFI = Comparative Fit Index; NFI = Normed Fit Index;

Table 2: Means, Standard Deviations And, And Zero-Order Correlations

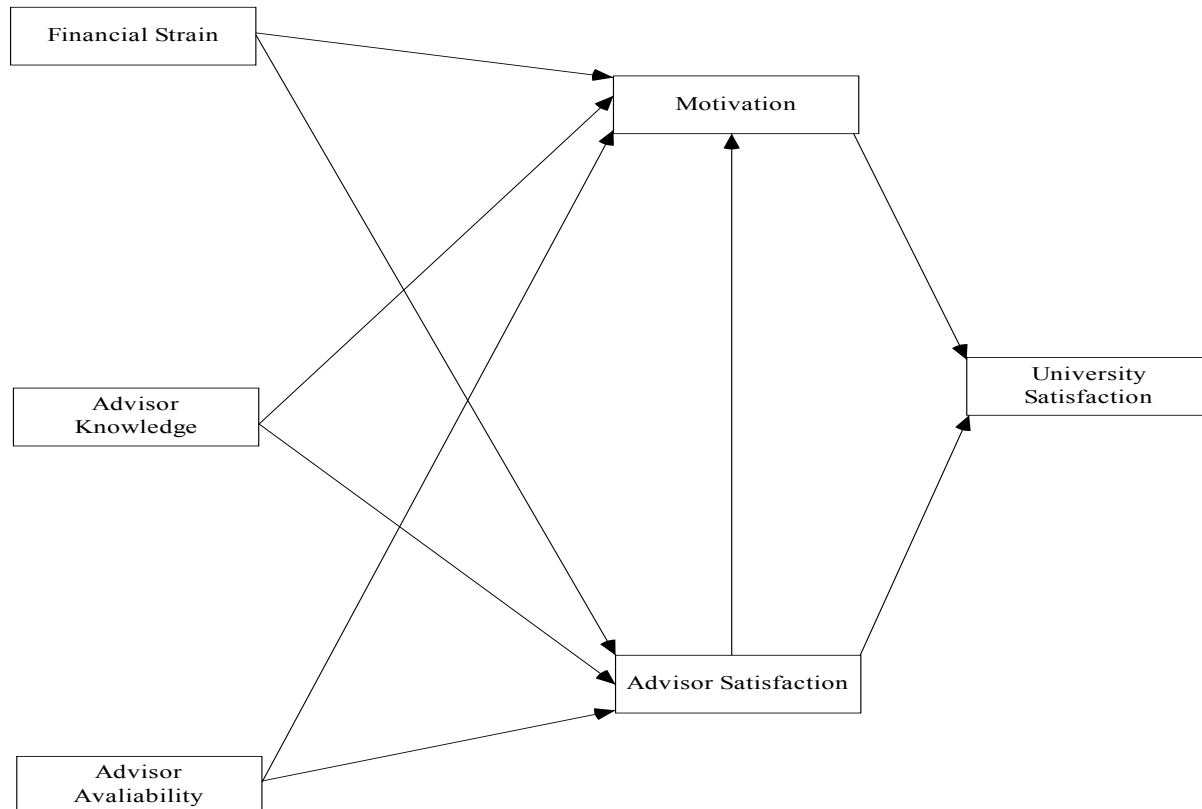
Variable	Mean	SD	1	2	3	4	5	6
1. Motivation	30.7438	5.08679	(0.774)					
2. Advisor Sat	14.4959	5.64524	.320**	(0.940)				
3.University Sati	17.2893	6.74961	.272**	.368**	(0.949)			
4.Financial Strain	10.8595	4.56856	-.250**	-.051	-.122	(0.881)		
5.Advisor Know	19.4215	6.16813	.439**	.853**	.419**	-.120	(0.763)	
6.Advisor Avail	22.1074	7.81324	.219*	.676**	.257**	-.236**	.678**	(0.789)

n = 121; Reliability estimates are on the diagonals in parentheses.
* Significant at the .05 level
** Significant at the .01 level
Motivation = Motivation
Advisor Sat = Advisor Satisfaction
University Sati = University Satisfaction
Financial Strain = Financial Strain
Advisor Know = Advisor Knowledge
Advisor Avail = Advisor Availability

ASSESSMENT OF MODEL FIT

In Figure 1, I have presented the Student Retention model that fits the data. Then the two-step approach to structural equation modeling propounded by (Anderson & Gerbing, 1988). First, the model was inspected for satisfactory fit indices. Upon verifying that the model was satisfactory, the structural coefficients were interpreted. The Advising satisfaction model had acceptable fit indices (Table 1). That is, the chi-square statistic was at its minimum, and the p-value was non-significant. The goodness-of-fit (GFI) coefficient was above its recommended threshold level of 0.90 (Hair et al., 1998), and the root mean square error of approximation (RMSEA) was less than 0.05, indicative of well-fitting models (Steiger & Lind, 1980). The chi-square divided by the degrees of freedom coefficient was less than three, which indicates acceptable model fit. All normalized residuals were less than two, which indicates that the data fits the hypothesized model. Figure 1: Hypothesized Model of Advisor Satisfaction

Figure 1: Hypothesized Model of Advisor Satisfaction



RESULTS

After attaining an acceptable model fit, the results of the hypothesis testing procedure are now interpreted. The authors of the study evaluated five hypotheses and describe the results below. The path coefficients, standard errors and t-values for the model are presented in Table 3.

Hypothesis 1 stated that the path from financial strain to motivation would be inversely related; support was established for H1

According to Hypothesis 2, the path from advisor availability to advisor satisfaction was positively related. Support was partially established because the path from advisor availability to advisor satisfaction was statistically significant.

Hypothesis 3, which stated that advisor knowledge would be positively related to advisor satisfaction, was sustained in our model.

Hypothesis 4 stated that advisor satisfaction would be positively related to university satisfaction: the authors found support for this conjecture.

Hypothesis 5 stated that the path from advisor satisfaction to motivation would be positively related; no support was established for this hypothesis.

The squared multiple correlations (SMC) for motivation, advisor satisfaction, and university satisfaction were 0.26, 0.75, and 0.16 respectively. In structural equation modeling, the SMC is equivalent to the R-squared coefficient in regression models (Hair et al., 1999). Therefore, the model explained 26% of the total variance for motivation, 75% of the variance in advisor satisfaction, and 16% of the variance in university satisfaction.

Table 3: Unstandardized Values for the Advisor Satisfaction Model		
Parameter	Path Coefficient	Hypothesis
University Satisfaction		
Advisor Satisfaction	0.37(3.51)**	H3
Motivation	0.23(1.92)*	
Motivation		
Financial Strain	-0.25(-2.72)**	H5
Advisor Knowledge	3.87(3.87)**	
Advisor Availability	-0.13(-1.68)*	
Advisor Satisfaction	-0.53(-0.53)	H4
Advisor Satisfaction		
Financial Strain	0.10(1.79)*	
Advisor Knowledge	0.66(11.54)**	H2
Advisor Availability	0.15(3.22)**	H1
Statistics are based on a sample of 121.		
These are the endogenous or dependent variable in the model; the exogenous variables are listed underneath		
*Significant at the 0.10 level.		
**Significant at the 0.05 level.		

ONE-WAY ANOVA TEST

A one-way ANOVA test was conducted with Motivation, Advisor Satisfaction, University Satisfaction, Financial Strain, Advisor Knowledge, and Advisor Availability as the dependent variables and Gender for the categorical variable. If the omnibus F-test was significant, as indicated in Table 4, then post hoc independent samples t-tests were performed to analyze the significant between-groups differences.

In the following section a discussion of the results from the ANOVA test, will be discussed.

Gender

The one-way ANOVA with Gender as the factor variable had a statistically significant omnibus F-test for motivation and university satisfaction. As indicated in Table 5, between-subjects t-tests indicated that females reported higher motivation scores, while males reported higher university satisfaction scores.

Table 4: Results of One-Way Anova Testing Procedure for the Categorical Variables, (N = 121)

	F-value	P-value
Factor		
GENDER		
(University Satisfaction)	4.116	.045**
(Motivation)	5.673	.019**
(Advisor Satisfaction)	0.643	.428
(Financial Strain)	0.031	.861
(Advisor Availability)	0.225	.636
(Advisor Knowledge)	0.392	.533
**Significant at the 0.05 level.		

Table 5: Results Of The Post Hoc Independent Samples T-Test For Gender (N = 121)

	T-value	P-value
Factor		
GENDER		
(University Satisfaction)	-2.029	.045**
(Motivation)	-2.382	.019**
**Significant at the 0.05 level.		

DISCUSSION

The discussion will proceed by looking at the hypotheses which were confirmed in the model. The finding that financial strain is inversely related to motivation is not very surprising. This means that although poverty or financial difficulties tend to serve as an inciting reason as to why individuals seek a college degree, financial difficulties tend to be a hindrance to obtaining a college degree. Individuals with limited financial resources might face numerous crises during which force them to withdraw from their pursuit of a college degree in order to work full-time to cover unexpected expenses. The motivation financial strain provides is ironic. As the same hand with which financial strain provides the inspiration to achieve a college degree, it removes the means by which one might achieve the degree.

The findings indicate that reduced financial strain has a positive effect on motivation. Another reason why reduced financial strain leads to greater motivation is because of the increased expectations and social support from family members/friends. One can reasonably hypothesize that individuals that face less financial strain do so because their parents have some form of certification, college degree or higher education which enables them to secure higher incomes. Growing up in the household of educated parents tends to create an environment in which the norm expectations for their children are to supersede or at least match their accomplishments. Additionally, educated parents tend to associate with other educated parents, or live in neighborhoods in which only educated individuals could reasonably afford which will lead to their children socializing with other kids who also have similar expectations and goals of succeeding in college. Growing up in a high expectation environment will cause them to greater expectations and motivation. In fact, it will seem that obtaining a college degree is mandatory,

with other options becoming available only after graduation. However this is not the case for children of financially disadvantaged parents. As these children will tend to socialize with other children of other poverty stricken individuals who might have lower aspirations such as simply getting a decent job and staying out of trouble. For these teens, college is not a mandatory element of life but is simply a choice one may choose pursue. Furthermore, many of these financially strained individuals may also face being teased or mocked with taunts such as “Why do you speak so proper?” or “Do you think you are better than me because you are going to college?” Bowen, Chingos and McPherson (2009) conclude their highly praised book *Crossing the Finish Line* by commenting on these same factors by saying that peer effects and expectations are important factors which lead greater motivation to matriculate. The researchers describe peer effects as being surrounded by highly capable students which improves the learning environment and promotes good educational outcomes of all kinds. Expectations were described by the researchers as an environment in which students feel real pressure to keep pace with their classmates. Therefore reduced financial strain not only affects a student's direct ability to complete college with minimal hindrances but also indirectly affects the environment in which students' aspirations are nurtured and this in turn affects their motivation to matriculate.

In this study, advisor availability and advisor knowledge explained 75% of the variance in the dependent variable advisor knowledge. This indicates that key components of the construct advisor satisfaction are the knowledge and availability of the advisor. Since virtualized software can provide 24/7 availability and it can be programmed with an overwhelming amount of information, should virtualized advising then be implemented? If availability was the factor we had to take into consideration then I would easily recommend universities virtualize all of their advising. However seeing that we have to take into consideration not only advisor availability, but also advisor knowledge, making such a recommendation based on availability alone is wrongheaded. In fact, one could argue that availability only matters or makes a difference if the advisor or computer program has knowledge to provide to the student. A computer program which is available 24/7 but does not provide similar knowledge as the professors would be an inferior replacement. Therefore the answer to the question about utilizing virtualized advising, is that it depends. It depends on the questions the student is asking. Take for example a lady who waits in line at a bank to speak to a teller. Upon reaching the teller she does not ask a financial question or even make a deposit, but instead asks where the bathroom is located. The teller then proceeds to point her to the right direction. In this situation the lady has wasted a significant portion of her time and has reduced the productivity of the teller. This is because she went to a specialized source of knowledge (the teller) to ask for mundane information (location of the bathroom). Here is the point, if students are seeking mundane information such as what are the prerequisites for Business Policy class, then a virtualized advising system can be an excellent solution. Now if the student asks a more specialized question such as what are good graduate schools of business? Or how do you manage extracurricular activities and a full workload? In those situations a virtualized advising system would not be the optimum source to go for answers. Theoretically we would have a system in which mundane questions are answered by a virtualized advising system, while more dynamic/complex questions are answered by advisors.

The problem is that this a purely theoretical notion and reality tends not to cater to such a strict segmentation. Students tend to ask both types of questions (mundane and dynamic) at the same time. However, this is not greatest hinderance to the implementation of virtualized advising.

The greatest hinderance to the implementation of virtualized advising come from two findings of this current study. The first finding stated that there existed an inverse relationship between advisor availability and motivation and the second finding stated that there existed a positive relationship between advisor knowledge and motivation. These results can be interpreted as saying the more time I spend with my advisor, the less motivation I have and the more knowledge my advisor imparts the greater my motivation to matriculate. This means that on average students spend more time with their advisor when they are unmotivated. And it logically follows that the more time they spend with their advisor, the more “knowledge” they receive. This signals that unmotivated/struggling students on average do not seek out their advisors for mundane knowledge about the prerequisites they have to take, but instead go to their offices seeking the “knowledge” or “wisdom” of encouragement. Advisors are dispensers of hope to students who do not think they have what it takes to matriculate. Therefore if an administration was to virtualize all of its advising it would severely hurt students who are unmotivated, since even if machines were programed to motivate students, it would not have the same authenticity as coming from a human counterpart. The virtualization of advising can possibly lead to an efficient allocation of resources in which students who are motivated would use the virtualized means of advising and students looking for encouragement would use their advisors. For some students this would be the reality, but for many students they receive encouragement as a result being forced to see their advisors (not directly looking for it) and then they are unexpectedly encouraged to press on. Therefore any university which has a large population of unmotivated students (or a population which has significant financial strain, since it is a predictor of reduced motivation) implementing a widespread virtualized advising system would not be recommended. As such a procedure would remove many students from the integral connection to advisors who provide the motivation they need to persist in their studies.

It was not surprising to find that advisor satisfaction was positively related to university satisfaction. As advisors are an integral part of the university system which can positively or negatively influence the way students perceive the university. For example, if a student is misadvised and resultantly is unable to graduate at an expected date, not only will the student be dissatisfied with their advisor but also with the university for not training the advisor to provide proficient service. However, it is surprising to note that advisor satisfaction is not a significant predictor of motivation. This could be caused as by the fact that many advisors do not provide encouragement to their advisees, therefore satisfaction with their advisor would not then lead to increased motivation. Or this discontinuity could be caused due to a lack of understanding as when one should be satisfied with the advisor. This could lead to students having lower expectations of one’s advisor (e.g. an advisor role is to simply remove one’s hold) and subsequently awarding high marks for satisfaction for poor advising.

The findings which indicated that males reported lower motivation scores and females reported lower university satisfaction scores carry significant implications. Thompson and Brown (2009) stated that males on average reported greater faculty undermining scores. This

indicates that males tend to perceive that teachers are “out to get them” or “want them to do poorly.” This negative perception would lead to the decreased motivation that was found in this study. Additionally, the finding that women report lower levels of university satisfaction than males should prompt the administration to conduct further research to find out the cause of this reduced satisfaction. Might it be that many females think that the activities, events, recreational rooms, etc cater more to males than to their interests? Could it be that since females on average report higher grade point averages, they are neglected while males are given the greater share of attention? These are all possibilities which may have caused a decreased university satisfaction among women.

CONCLUSION

Institutions in which the majority of students face hindrances to motivation such as financial strain, should not implement a widespread virtualized advising program. At best, such a system should only be fully implemented in honor colleges, where students are already highly motivated. Furthermore, this study found that although numerous advisors are charged to provide assistance in helping students register for classes, they are providing the most value to student when they engage in motivational building activities which inspire students to achieve. However the best motivation provided to students will have a negligible effect if students face financial hardships which force to leave college. Therefore we agree with Bowen, Chingos, and McPherson (2009) when they say that key campus actors should be provided with a meaningful amount of discretionary money that can be quickly deployed to relieve financial distress students face. As this measure could make a real difference in increasing student completion rates. Lastly, advisors should be given training as to the means by which they can provide effective advising and should be encouraged to encourage students, not only for the students sake, but also for the university’s sake, since advisor satisfaction is positively correlated with university satisfaction.

Should virtualized advising, should be implemented or discarded? Virtualized advising should be provided for professors to use to help reduce the time required to provide guidance to students. This will enable professors to spend more time encouraging students and helping with any personal issues they may be facing. Furthermore, the implementation of such an advising process will help to ensure that accurate information is being provided by advisors. This will reduce the occurrences of students being misadvised. Virtualized advising software would be a wonderful tool as long as its access is restricted to either professors or honor college students within universities with large populations of unmotivated or financially strained students.

Limitations

As is true of most research, our research had some limitations. First, the cross-sectional design of the study does not allow for causal inferences. Another limitation is the small sample size of only 121 (Boomsma, 1982). Furthermore, since all the reports were collected through

self-report measure this may lead to the problem of common method bias and inflated predictive relationships.

Future Research

A future area of inquiry would be to compare how satisfied varied ethnicities are with their advisors. Another interesting research idea would be to see if different personality characteristics of students result in differing levels of motivation and satisfaction with their advisors. Furthermore, there is a need to compile various advising styles to create an advising inventory so that professors can further understand the methodology they are utilizing to counsel their students and remedy the weaknesses which may be inherent in that advising style.

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DEVELOPING AN ASSESSMENT AND DEVELOPMENT PLAN FOR STUDENTS ENTERING INTERMEDIATE ACCOUNTING I: THE PROCESS AND STUDENT REACTIONS TO THE PLAN

Mary E. Phillips, Middle Tennessee State University
Rebecca A. Foote, Middle Tennessee State University
Terry J. Ward, Middle Tennessee State University
Paula B. Thomas, Middle Tennessee State University

ABSTRACT:

Motivated by concerns regarding the failure rate and number of withdrawals in the first intermediate accounting course, as well as a concern for the varied levels of preparedness of students entering the course, our faculty formed an Intermediate Readiness Committee to develop and implement a program for improvement. Our program is a combination of an exam followed by a developmental component for those students not passing the exam. This paper describes the process we used in developing our current program and student reactions to the program. Students generally enjoyed the developmental software and believed that the assessment and development program was rewarding and useful to them in Intermediate I. Our program was deemed a 'best practice' in a recent AACSB visit for maintenance of our Department of Accounting's separate accreditation, and we recommend this initiative to other universities.

Topic Area: Accounting Education

Key Words: Intermediate Accounting, Assessment Test, Assessment and Development Program

INTRODUCTION

Driven by a desire to improve student knowledge of accounting fundamentals entering Intermediate Accounting I, and concerned about the diverse backgrounds of our students entering the course, faculty at our school decided to study the situation and to formulate a plan going forward. In our program, we have a number of students who have taken the accounting principles courses at junior colleges, and we also have a number of non-traditional students returning to school to study accounting who may have had those courses a number of years ago.

In addition, we have a growing number of foreign students with diverse backgrounds. We desire continuous improvement in student retention and in student performance, and we want to place students entering the first intermediate accounting course on a more level playing field, which in turn raises the academic level of the course overall.

In response to these concerns and to our desire for improvement, we formed an Intermediate Readiness Committee, comprised largely of faculty who teach Intermediate Accounting, to discuss the issues and develop a plan. We decided to implement a barrier exam that students must pass in order to complete the first intermediate accounting course. We very leniently allowed multiple attempts at the exam and found the pass rate to be quite low. We studied exam results and identified weak areas for students in an effort to help them pass the exam. After one semester under this plan, we concluded that the process was too time consuming, taking away needed study time for the material in the first intermediate accounting course. Our revised plan is a combination of testing, with only one attempt at the exam, and development, using accounting software as a remedial program for those who do not score at least 70 percent on the exam. (Information about ALEKS®, Assessment and Learning in Knowledge Spaces, can be found at <http://www.ALEKS.com>. ALEKS® is an online, web-based system based on individualized assessments.)

The committee continues to monitor the exam process and analyzes data on an ongoing basis. As a result of this monitoring, we have also implemented an alternative course to replace the second accounting principles course for students majoring in accounting. All College of Business students must complete the same first accounting principles course (financial). Business students, other than accounting majors, complete a second accounting principles course that is a combination of financial and managerial accounting, while accounting majors complete the alternative accounting principles course that is primarily financial accounting. A future study will examine the impact of the alternative course designed specifically for accounting majors, since we do not have sufficient data to analyze the impact at this time.

The purpose of this paper is to describe the process we used in developing our current program, as well as student reactions to the program. We also make recommendations to other schools offering accounting degrees, so they might benefit from our experience. We suggest this model as an integral part of the assessment process for accreditation purposes, as well. We find that students generally enjoyed the developmental software and believed that the assessment and development program was rewarding and useful to them in Intermediate I.

There is a stream of prior research related to improving performance in the first intermediate accounting course. Diagnostic exams are determined to be useful in predicting grades in the first intermediate accounting course (McCormick & Montgomery, 1974; Buehlmann, 1975; Delaney et al., 1979; Hicks & Richardson, 1984; Danko-McGhee & Duke, 1992; Shoulders & Hicks, 2008; Ward et al., 2012). Also, there is a positive relationship between student grades in the second accounting principles course and grades in the first intermediate accounting course (Buehlmann, 1975; Delaney et al., 1979; Eckel & Johnson,

1983). Frakes (1977) demonstrates that overall grade point average is significantly related to grades in the first intermediate accounting course, and Hicks & Richardson (1984) show a relationship between grades in the first intermediate accounting course and both overall GPA and GPA in accounting courses.

In addition, various student attributes have been examined for their effect on student attitude toward learning: gender (Byrne et al., 1999; de Lange & Mavondo, 2004; Duff, 1999; Duff & McKinstry, 2007), age and nontraditional background (Duff, 1999). Prior research in accounting education shows mixed effects of gender. Mutchler et al. (1989), Lipe (1989) and Tyson (1989) find that females outperform males in accounting exams, while other research finds no gender difference (Doran et al., 1991; Gist et al., 1996; Davidson, 2002) or that gender is not significant when controlling for ACT or SAT scores (Buckless et al., 1991).

Other prior research examines the use of both a diagnostic exam and remedial work. Huang et al. (2005) find that students who pass a pretest or a remedial class receive higher grades in the first intermediate accounting course. Sanders & Willis (2009) show improved performance in the first intermediate accounting course following a competency exam and various remedial opportunities. Ward et al. (2012) build on the research of Sanders & Willis (2009) and control for a number of variables shown in prior research to contribute to success in accounting. They find improved performance in the first intermediate course following each of three escalating intervention processes.

This paper is organized as follows. First we describe our process and then discuss descriptive statistics. Finally we present our limitations and conclusions and make recommendations for other schools.

OUR PROCESS TO DEVELOPING AN ASSESSMENT AND DEVELOPMENT PROGRAM

Formation of the Intermediate Readiness Committee and Implementation of an Entrance Exam

The first intermediate accounting course has traditionally been known as the “weed-out” course, so like many universities, we have a history of high attrition and failure rates in that course. The faculty had numerous discussions to explore reasons for the disparity in students’ knowledge and lack of preparedness for the first intermediate accounting course. We conducted some analyses to determine whether unsuccessful Intermediate Accounting I students had any characteristics in common, such as the completion of the accounting principles courses at community colleges or other universities; however, our results were inconclusive. We decided that regardless of the reason for high attrition and failure rates in the first intermediate accounting course, we needed to take steps to ensure that our accounting majors have the appropriate skills and knowledge to succeed in our program.

The Intermediate Readiness Committee convened during the summer of 2006, charged with implementing an entrance exam for the first intermediate accounting course during the fall 2006 semester. The Committee members placed course in the university's 2005-2007 undergraduate catalog the requirement to pass a departmental entrance exam as a pre-requisite for the first intermediate accounting. Additionally, the Department sent a letter explaining the requirement to all students registered in the first intermediate accounting course for the fall 2006 semester to their homes of record. The letter advised students of the following:

1. The focus of the exam would be on fundamental accounting concepts, including but not limited to the accounting cycle and the impact of transactions on the financial statements;
2. the exam would be administered during the first regular class meeting of the section in which they were enrolled;
3. students who earned a passing grade of 70 percent or better on the exam would be permitted to continue in the course without additional qualifications;
4. students who earned a failing grade would be given an opportunity to re-test a few weeks later;
5. a passing grade by the second attempt would be required to maintain enrollment in the course; and
6. the Accounting Department would be offering non-credit review sessions, taught by faculty members, for students desiring help in preparing for the exam.

We believed that students had been adequately notified of this new initiative, but when classes began, many students indicated that they were not aware of the requirement to pass an entrance exam. Additionally, several groups, including students, parents, and the university's Records Office, expressed concern over the potential ramifications of the new requirement. Primary concerns centered around the consequences of students losing full-time student status as a result of dropping the course, which could adversely affect scholarships, tuition and insurance coverage.

Since fall of 2006 was our first implementation semester, we strove to provide maximum flexibility to ensure that no students were treated unfairly during the transition. We permitted five attempts at the exam, instead of only two attempts, as first communicated to the students. The fifth testing opportunity occurred before the university's deadline to drop a course with a grade of "W". Students were not required to take all five attempts, but they were required to pass the exam by the fifth testing opportunity with a grade of 70 percent or higher in order to be eligible to pass the course. Students who failed to pass the exam by the fifth testing opportunity were permitted to remain enrolled in the course; however, they received a semester grade of "F". This policy permitted full-time student status to remain intact.

The fall 2006 Entrance Exam consisted of 40 multiple-choice questions drawn from a question bank developed by the members of the Intermediate Readiness Committee. A different version of the exam was prepared for each testing opportunity, with the exception of the fifth testing opportunity when the exam was a compilation of the first four versions. Each time the

exam was administered, one hour was allowed for the exam and grades were provided within 24 hours. Throughout the testing period, faculty taught noncredit review sessions, and students were permitted to review their previous exams. After the third testing opportunity, students who had failed the exam at least twice were given individualized feedback to improve their understanding in areas where they were weak in previous exam attempts.

When the testing period ended, 83 percent of students still enrolled had passed the exam. Of the remaining 17 percent, ten students who were still seeking to pass the exam were not able to obtain a grade of at least 70 percent. Only one of those students remained in the course and received a semester grade of “F” as a result. The other nine withdrew from the course with a semester grade of “W”. Three additional students who had stopped participating in the testing process before the fifth attempt remained enrolled in the course, and also received semester grades of “F” due to the fact that they did not succeed on the entrance exam.

Current Program: Changing Exam to Assessment Instrument and Creation of Developmental Component

In preparation for spring 2007 semester, the Intermediate Readiness Committee realized that change would be necessary, as five attempts at the exam did not accomplish the objective of ensuring that students were adequately prepared for the first intermediate accounting course. The testing period lasted too far into the semester, thus, students who were still attempting to pass the exam were required to divide their attention between preparing for the exam and studying the first intermediate accounting course curriculum.

As a result, the Committee decided to use the exam as an assessment of student knowledge entering Intermediate I. Students scoring less than seventy percent on the exam had to complete developmental work to remain in Intermediate I. Also, students would only take the exam once. Students could choose from several testing opportunities. In the infrequent event that a student could not attend any of the published dates, individual testing was arranged. Our goal was to better communicate the entrance policy as early as possible, and to emphasize that it had been implemented for the benefit of the student.

Before classes ended in the fall, a Committee member visited each of the second principles classes to hand deliver copies of the entrance policy letter and to discuss the testing process with students who were advancing to the first intermediate accounting course. In addition, a copy of the entrance policy letter was sent to the students’ homes upon their enrollment in the first intermediate accounting course. Noncredit review sessions were no longer offered. Students who were repeating the course during spring 2007 semester, and had completed the entrance requirement during fall 2006 semester, were exempt from the entrance policy for spring 2007 semester, because our entrance policy provides an exemption for the semester immediately following a semester in which successful completion of the entrance requirement occurs.

In addition to allowing only one attempt at the exam, we added a developmental component to the entrance requirement in spring of 2007. Going forward, we began using the exam as a mechanism to identify students who did not have the appropriate skills to succeed as an accounting major, and then provided them with tools to develop the necessary skills for success.

After seeing a demonstration at the American Accounting Association annual meeting, we selected the Accounting Cycle (Corporation) module of ALEKS®, an online learning system, to serve as our developmental component. During Spring 2007 semester, students who did not earn 70 percent or higher on their only attempt at the entrance exam were permitted to continue in the course with possibility of success, if they completed the ALEKS® module by a deadline that was set approximately two and a half weeks into the semester. Students were required to purchase access at their own expense. Successful completion was defined as proving mastery of all 50 topics that comprise the Accounting Cycle module and taking the final assessment, known as the Goal Completion Assessment, to the best of the student's ability, although no minimum score was required. Students who did not complete the ALEKS® module by the deadline were given the option of withdrawing from the class or remaining enrolled and receiving a semester grade of "F".

Soon after the entrance requirement deadline passed, we conducted an anonymous survey on the students' perspectives of whether an entrance requirement for the first intermediate accounting course is appropriate. We also surveyed their opinions regarding the requirement to complete the ALEKS® module in order to remain active in the course, and whether they believed that its completion added value.

Results of that survey revealed that approximately 74 percent of all respondents believed (indicating from 6-10 on the 10-point Likert scale) that the entrance requirement was appropriate. Fifty-six percent of the respondents were required to complete the ALEKS® module and they further indicated the following (indicating 6-10 on the 10-point Likert scale):

1. Approximately 82 percent believed that they needed a review of the principles concepts in order to succeed in the first intermediate accounting course;
2. approximately 96 percent believed that the ALEKS® module provided a good review of the accounting cycle;
3. approximately 86 percent believed that they were better prepared for the first intermediate accounting course as a result of having completed the ALEKS® module; and
4. approximately 80 percent recommended that the ALEKS® module be used in the same manner for the first intermediate accounting course in the future.

The entrance requirement policy has remained substantially the same for semesters subsequent to spring 2007 semester and is the current Assessment and Development Program used by our department. Our program was deemed a 'best practice' in a recent AACSB visit for

maintenance of our Department of Accounting's separate accreditation, and we recommend this initiative to other universities.

We have made some additional minor changes that have benefited both the students and the process. During spring 2008 semester, the Department of Accounting obtained funding to pay for ALEKS[®] access codes, so there is no longer a cost to students. Also, a study guide that lists the financial topics that are covered in Principles I and II was posted on the departmental website. During summer 2008 term, we moved the entrance requirement deadline to coincide with the last day to drop the course without a grade. This earlier deadline requires students to evaluate their ability to succeed in the class early enough in the semester to prevent their enrollment from affecting their official transcripts if they determine they cannot succeed that semester.

DISCUSSION AND IMPLICATIONS

We collected data from fall of 2005 through summer of 2006 for comparison purposes and label this period the Pre-assessment Period. Data collected for the fall of 2007 semester covers the period where we administered the exam with multiple attempts as an entrance hurdle for taking Intermediate I. We label this period the Entrance Exam Period. The remaining semesters from summer of 2007 to fall of 2009 cover the semesters under our current Assessment and Development Plan. Thus, we label this period the Assessment and Development Period.

Table 1 displays the frequency counts by gender for each period of our study. The percentages of males and females are both close to 50 percent for each period and in total (50.2 percent females versus 49.8 percent males). The majority of the sample (59.4 percent) is from the Assessment and Development Period, with only one percent difference between the percentages of females and males in that period. The largest spread between female and male percentages is in the Entrance Exam Period (47.5 percent females and 52.5 percent males).

Table 2 shows frequency counts for each period according to where students took the second principles class. We present both the grades and the school where the second principles class was taken because prior research documents that the second principles class is a better predictor of success in the first intermediate accounting class than is the first principles class. This may be due to how new the course was, or the fact that the content of the second principles course is more complex, dealing with corporate accounting as opposed to sole proprietorships and partnerships. The majority of our sample (66.5 percent) took the second principles course at our university, while the next largest group (18.6 percent) transferred the course from community colleges.

Table 1: Frequency Counts of Students by Gender for Each Period of this Study

	Pre-assessment Period¹	Entrance Exam Period	Assessment and Development Period	Totals
Gender	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (N.A) (N.A)
Female	108 (13.3) (26.5) (51.2)	56 (6.9) (13.8) (47.5)	243 (30.0) (59.7) (50.5)	407 (50.2)
Male	103 (12.7) (25.6) (48.8)	62 (7.7) (15.4) (52.5)	238 (29.4) (59.0) (49.5)	403 (49.8)
Totals	211 (26.0)	118 (14.6)	481 (59.4)	810 (100.0)

Table 2: Frequency Counts of Students by School Where they took Principles II for Each Period of this Study

	Pre-assessment Period¹	Entrance Exam Period	Assessment and Development Period	Totals
Principle II School	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (% Across Period) (% Within Period)	Count (% of Total) (N.A) (N.A)
School of Study	132 (16.3) (24.5) (62.6)	77 (9.5) (14.3) (65.3)	330 (40.7) (61.2) (68.6)	539 (66.5)
Other Four-Year Public University	6 (0.7) (20.0) (2.8)	9 (1.1) (30.0) (7.6)	15 (1.9) (50.0) (3.1)	30 (3.7)
Private Four-Year College	4 (0.5) (21.0) (1.9)	3 (0.4) (15.8) (2.6)	12 (1.5) (63.2) (2.5)	19 (2.4)
Community College	41 (5.1) (27.1) (19.4)	24 (2.9) (15.9) (20.3)	86 (10.6) (56.9) (17.9)	151 (18.6)
Other	28 (3.5) (39.4) (13.3)	5 (0.6) (7.0) (4.2)	38 (4.7) (53.5) (7.9)	71 (8.8)
Totals	211 (26.0)	118 (14.6)	481 (59.4)	810 (100.0)

¹ Pre-assessment Period – the period before any assessment plan was used for students entering the first intermediate accounting course. Entrance Exam Period – the period where the department used an entrance exam only to determine if students should be allowed to take for credit. Assessment and Development Period – the period where the department used an assessment test to identify the students with weaknesses and then required completion of developmental software to improve the basic accounting knowledge.

We examine average entrance exam scores by gender, where students took the second principles class, as well as the grade earned in the second principles class for the two assessment periods (Table 3). However, one cannot compare the entrance test across the two periods; students were allowed multiple attempts at the exam during the Entrance Exam Period. Thus, relevant comparisons are within each period for the relevant variables of gender, where students took Principles II, and grade in Principles II.

Table 3: Average Entrance Exam Scores by: Gender, Where Student Took Principles II, and Grade Student Earned in Principles II						
	Entrance Exam Period ¹		Assessment and Development Period		Totals	
Variable	Mean (Standard Deviation)	N	Mean (Standard Deviation)	N	Mean (Standard Deviation)	N
Gender:						
Female	0.746 (0.103)	56	0.626 (0.177)	241	0.648 (0.172)	297
Male	0.750 (0.083)	62	0.625 (0.162)	230	0.651 (0.157)	292
Where Students Took Principles II:						
School of Study	0.740 (0.094)	76	0.655 (0.161)	322	0.670 (0.153)	398
Other School	0.754 (0.094)	34	0.563 (0.173)	149	0.598 (0.177)	183
Grade in Principles II:						
A	0.744 (0.097)	53	0.699 (0.176)	178	0.709 (0.162)	231
B	0.762 (0.067)	35	0.596 (0.144)	140	0.629 (0.147)	175
C	0.712 (0.113)	21	0.539 (0.135)	109	0.567 (0.146)	130
No Grade Reported	0.807 (0.074)	9	0.642 (0.179)	40	0.672 (0.176)	49
¹ The periods were defined in Table 1.						
Note: average attempts during Entrance Exam Period: No Grade = 1.44; C = 2.52; B = 2.37; A = 2.00; School of Study = 2.37; Other School = 2.15; Male = 2.06; Female = 2.27						

Entrance exam scores were similar for females and males for both the Entrance Exam Period and the Assessment and Development Period. As expected, entrance exam grades were higher in the Entrance Exam Period. We attribute this to the fact that we record their last exam score of multiple retakes of the entrance exam, suggesting improvement as they studied and retook the exam. Each exam was different; however, except the exam at the final retake opportunity was comprised of questions from previous exams.

An interesting observation is that during the Entrance Exam Period students earning grades of B in the second principles class scored higher on the entrance exam than students making As. Females took the entrance exam more times than male students (2.27 times versus 2.06 times). Also, the number of average attempts on the entrance exam for students making A, B, or C is progressively less the higher the grade, and students in our university took the exam more times than students from other schools.

In the Assessment and Development Period, students from our university scored on average 9.2 percentage points higher on the entrance exam than students from other schools (65.5 percent versus 56.3 percent). Average entrance exam scores for students making As in the

second principles course were 69.9 percent, with 59.6 percent and 53.9 percent for students making Bs and Cs respectively.

Table 4 compares average entrance exam scores to grades earned in the first intermediate accounting class. Average entrance exam scores are the same across both periods for students earning a grade of A in the first intermediate accounting class. Again, the Entrance Exam Period shows higher average entrance exam scores than the Assessment and Development Period for all other grade levels, and there is only a small change in average exam score with each drop in letter grade. In total, however, there is a 9.7 percentage point drop in average entrance exam scores for students making grades of B compared to those making As. The drop in average entrance exam score is less dramatic between students making a B or a C. Students making letter grades of F in the first intermediate class actually scored higher on the entrance exam than did students making letter grades of D. In this paper, we do not test for correlation of entrance exam scores and grades in either the first intermediate or second principles classes, but anecdotally, there appears to be a positive relationship, in that as the entrance exam grades rise, the grades in both the first intermediate and second principles classes increase as well.

Table 4: Average Entrance Exam Score by Grade Earned in Intermediate I for the Two Periods of Interest						
	Entrance Exam Period ¹		Assessment and Development Period		Totals	
Variable	Mean (Standard Deviation)	N	Mean (Standard Deviation)	N	Mean (Standard Deviation)	N
Intermediate I Course Grade:						
A	0.782 (0.074)	14	0.782 (0.147)	89	0.782 (0.139)	103
B	0.763 (0.050)	37	0.661 (0.128)	126	0.685 (0.122)	163
C	0.753 (0.104)	36	0.597 (0.147)	128	0.632 (0.146)	164
D	0.747 (0.033)	7	0.497 (0.137)	40	0.534 (0.155)	47
F	0.768 (0.147)	13	0.504 (0.137)	54	0.555 (0.158)	67
Withdrew	0.611 (0.127)	11	0.528 (0.177)	34	0.549 (0.169)	45
¹ The periods were defined in Table 1.						
Note: average attempts during Entrance Exam Period: No Grade = 1.44; C = 2.52; B = 2.37; A = 2.00; School of Study = 2.37; Other School = 2.15; Male = 2.06; Female = 2.27						

After the entrance requirement deadline passed in each semester, we administered a survey to obtain students' perspectives regarding our readiness program. Table 5 shows average responses (10-point Likert scale) to the eight questions on the survey. The response levels are defined in Table 5.

Table 5: Student Perception of ALEKS®				
Question¹	Period	Males	Females	Total
Question 1: To what extent do you believe you needed a review of principles of accounting concepts in order to succeed in the first intermediate accounting course?				
	Spring, 2007	N.A.	N.A.	7.63
	Fall, 2007	8.5	8.79	8.66
	Spring, 2008	8.24	8.1	8.16
	Fall, 2008	8.63	8.31	8.44
	Spring, 2009	8.12	8.44	8.31
	Fall, 2009	8.8	8.6	8.67
	Overall	8.458	8.448	8.448
Question 2: Did completing ALEKS® change the opinion you expressed in the previous question?				
	Spring, 2007	N.A.	N.A.	5.65
	Fall, 2007	6.09	4.46	5.2
	Spring, 2008	5.16	4.93	5.04
	Fall, 2008	6.32	5.28	5.69
	Spring, 2009	5.35	5.2	5.26
	Fall, 2009	5.04	5	5.03
	Overall	5.592	4.974	5.244
Question 3: To what extent do you believe that ALEKS® provided a good review of the accounting cycle?				
	Spring, 2007	N.A.	N.A.	8.37
	Fall, 2007	8.59	8.59	8.59
	Spring, 2008	8.16	8.5	8.34
	Fall, 2008	8.42	8.97	8.75
	Spring, 2009	8.59	8.92	8.79
	Fall, 2009	9.04	9.44	9.21
	Overall	8.56	8.884	8.736
Question 4: To what extent do you believe that you are better prepared for Intermediate I as a result of completing ALEKS®?				
	Spring, 2007	N.A.	N.A.	7.41
	Fall, 2007	8	7.56	7.76
	Spring, 2008	7.56	7.93	7.76
	Fall, 2008	8.21	8.14	8.17
	Spring, 2009	7.59	8.28	8
	Fall, 2009	8.79	7.72	8.33
	Overall	8.03	7.926	8.004
Question 5: How would you describe the time requirement necessary to complete ALEKS®?				
	Spring, 2007	N.A.	N.A.	6.8
	Fall, 2007	6.23	7.08	6.71
	Spring, 2008	6.96	6.79	6.87
	Fall, 2008	5.71	5.08	5.32
	Spring, 2009	6.44	5.96	6.15
	Fall, 2009	6.62	6.5	6.57
	Overall	6.392	6.282	6.324
Question 6: To what extent do you believe that successful completion of ALEKS® was defined by the instructions provided on the Accounting Department website?				
	Spring, 2007	N.A.	N.A.	7.67
	Fall, 2007	7.93	7.66	7.78
	Spring, 2008	7.54	7.17	7.34

Table 5: Student Perception of ALEKS®

Question ¹	Period	Males	Females	Total
	Fall, 2008	8.57	8.05	8.25
	Spring, 2009	8.69	8.92	8.83
	Fall, 2009	7.77	8.86	8.2
	Overall	8.1	8.132	8.08
Question 7: How would you describe ALEKS® in terms of difficulty?				
	Spring, 2007	N.A.	N.A.	7.45
	Fall, 2007	7.4	6.95	7.15
	Spring, 2008	6.71	7.45	7.11
	Fall, 2008	7.71	8.04	7.92
	Spring, 2009	6.5	7.44	7.07
	Fall, 2009	6.52	7.38	6.89
	Overall	6.968	7.452	7.228
Question 8: To what extent do you recommend that ALEKS® be used for future Intermediate I classes in the same manner?				
	Spring, 2007	N.A.	N.A.	7.71
	Fall, 2007	8.13	8.32	8.24
	Spring, 2008	7.75	8.07	7.92
	Fall, 2008	8.64	9.17	8.97
	Spring, 2009	7.81	9.28	8.71
	Fall, 2009	8.62	9.56	9.03
	Overall	8.19	8.88	8.574
¹ All of the above questions asked students to respond using a 10-point Likert scale. For question 1, the response scale went from 1, not needed, to 10, strongly needed. For questions 2, 3, and 4, the response scale went from 1, strongly do not believe, to 10, strongly do believe. For question 5, the response scale went from 1, too long, to 10, not long enough. For question 6, the response scale went from 1, not clearly defined, to 10, clearly defined. For question 7, the response scale went from 1, very difficult to use, to 10, not at all difficult to use. For question 8, the response scale went from 1, strongly do not recommend, to 10, strongly recommend.				

Students responded that they strongly needed (question 1 with an overall response of 8.448) a review of principles of accounting concepts in order to succeed in the first intermediate accounting class, and they believed (question 2 with an overall response of 8.736) that ALEKS® provided a good review. They indicated that they felt better prepared (question 4 with an overall response of 8.004) as a result of completing ALEKS®, and they recommended (question 8 with an overall response of 8.574) that ALEKS® be used in future classes. They found ALEKS® to be user friendly (question 7 with an overall response of 7.228) and not requiring too much time to complete (question 5 with an overall response of 6.3). Generally, students have commented to faculty that they had a positive experience using ALEKS®, and a number of students requested access codes in order to review the accounting cycle using ALEKS®, even though they did pass the entrance exam and were not required to do so.

We collected data regarding the time to complete ALEKS® and the score earned in ALEKS® (see Table 6) from the 300 students who used ALEKS® for their review. The scores earned in ALEKS® are similar between females and males, between students who took the second principles course at our university or another school, and across the grades of A, B, and C

students earned in the second principles course. Perhaps this lack of variability in scores earned in ALEKS® is due to the fact that each student could take as much time as needed to complete the task. ALEKS® is an interactive program, and there are intermittent assessments which send students back to review topics that have not been mastered at that point. Students were required to complete the module and take the Goal Completion Assessment. Our goal with ALEKS® is to bring students to a common level of knowledge so they will be able to succeed in the first intermediate class.

The average time to complete ALEKS® is similar for female and male students (13.049 versus 13.692 hours). Students from other schools required 2.3 hours more than students from our university to complete ALEKS®. As expected, compared to students making grades of B in the second principles class, students making grades of A required approximately 1.2 hours less to complete ALEKS®. On average, students making a B or C in the second principles class required approximately the same amount of time to complete ALEKS® (13 hours).

Table 6: Average Time to Complete ALEKS® and Score Earned in ALEKS® by Gender, Where Students Took Principles II, and Grade Student Earned in Principles II

	Time to Complete ALEKS®	Score Earned In ALEKS®	
Variable	Mean (Standard Deviation)	Mean (Standard Deviation)	Number of Observations
Gender:			
Female	13.049 (6.413)	0.914 (0.156)	156
Male	13.692 (6.430)	0.903 (0.158)	144
Where Students Took Principles II:			
School of Study	12.049 (6.089)	0.903 (0.159)	192
Other School	14.367 (6.735)	0.919 (0.152)	108
Grade in Principles II:			
A	11.871 (6.257)	0.910 (0.150)	74
B	13.095 (6.304)	0.903 (0.172)	109
C	12.880 (6.569)	0.915 (0.144)	95
No Grade Reported	14.942 (6.313)	0.949 (0.083)	19

¹ ALEKS® related measures are only relevant for the Assessment and Development Period.

Determining whether the program improved performance in Intermediate I involves empirical modeling with numerous control variables and is outside the scope of this paper. However, we offer some nonempirical data as an initial look at the results. The frequency count of different letter grades in the first intermediate accounting class across the Pre-assessment Period, the Entrance Exam Period and the Assessment and Development Period are presented in Table 7.

The results in Table 7 show a steady increase in the percentage of students earning a grade of A across the periods (7.58 percent to 11.86 percent to 18.50 percent), and a steady decrease in the percentage of students withdrawing from the first intermediate class (from 12.32

percent to 9.32 percent to 7.48 percent). The percentage of students making grades of B increased from 22.27 percent in the Pre-assessment Period to 26.40 percent in the Assessment and Development Period. Students failing the class (making grades of D or F) remained fairly constant (21.33 percent in the Pre-assessment Period to 20.37 percent in the Assessment and Development Period). Thus, we saw more As and Bs and fewer Cs and withdrawals. The number of Ds and Fs remains around 20 percent of those remaining in the class. Thus, basic analysis of the data suggests that our programs resulted in improved performance in Intermediate I. The grades improved with each program, producing better student performance and reducing the number of students withdrawing from the class.

Table 7: Frequency Counts of Intermediate I Grades by Period of Study

	Pre-assessment Period ¹	Entrance Exam Period	Assessment and Development Period	Totals
Observations by Letter Grade Earned in Intermediate I:	Count (% Within Period)	Count (% Within Period)	Count (% Within Period)	Count (% of Total)
A	16 (7.58)	14 (11.86)	89 (18.50)	119 (14.69)
B	47 (22.27)	37 (31.36)	127 (26.40)	211 (26.05)
C	77 (36.49)	36 (30.51)	131 (27.23)	244 (30.12)
D	15 (7.11)	7 (5.93)	43 (8.94)	65 (8.02)
F	30 (14.22)	13 (11.02)	55 (11.43)	98 (12.10)
Withdrew	26 (12.32)	11 (9.32)	36 (7.48)	73 (9.01)
Totals	211 (26.05)	118 (14.57)	481 (59.38)	810 (100.0)

¹ The periods were defined in Table 1.

CONCLUSIONS

This paper described the process leading to the development of an Assessment and Development Program at our university for students entering Intermediate I. We described the steps we took to develop our Program, the relationships of entrance exam scores to variables of interest, students' reactions to the Program, and anecdotal evidence of how the Program impacted Intermediate I grades.

We find that students generally enjoyed the development software and believed that the assessment and development program was rewarding and useful to them in Intermediate I. Anecdotally, we do find a positive relationship between the grade in the second principles class

and the entrance exam grades and also between entrance exam grades and the grades in the first intermediate accounting class.

Students in our sample were fairly evenly split between genders, and two-thirds (66.5 percent) of them took their second principles class at our university, with around 18.6 percent taking the second principles class at a community college. Students taking the second principles class at our university scored higher on the entrance exam than students taking the course at other schools. As expected, students making better grades in the second principles class scored higher on the entrance exam. On average, students scoring higher on the entrance exam also scored higher in their final grades in the first intermediate class.

Generally, students liked ALEKS® and indicated they believed it provided a good review of the accounting cycle which they perceived they needed. They also recommended continuing to use ALEKS® for future classes. They felt the time required was reasonable, and we noted that students receiving a grade of A in the second principles course required 1.2 hours less to complete ALEKS®. All students received approximately the same score in ALEKS®, since they were allowed to spend as much time as needed to complete the module and take the Goal Completion Assessment.

We find an increasing percentage of students making As and Bs in the first intermediate class across our Pre-assessment, Entrance Exam, and Assessment and Development Periods. We also find a lower percentage of students making Cs across these periods and a lower percentage of students withdrawing from the first intermediate course. The percentage of students failing the first intermediate course (grade of D or F) remains fairly constant across all periods (approximately 20 percent).

We believe the program has been successful and plan to continue to refine the process. In our recent AACSB visit for the Accounting Department's separate maintenance of accreditation, our Assessment and Development Program was noted as a best practice. We have devoted a lot of time and resources to collecting and analyzing data, and we recommend our Assessment and Development Program to other schools who are working toward improving success in the first intermediate accounting course. In future research, we will test more formally the relations we have noted anecdotally from our descriptive statistics.

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“THE FIRST STEP IN PROACTIVELY MANAGING STUDENTS’ CAREERS: TEACHING SELF-SWOT ANALYSIS”

Lon Addams, Weber State University
Anthony T. Allred, Weber State University

ABSTRACT

The purpose of this article is to (1) share with other professors the value of a career self-SWOT analysis for students, (2) encourage professors to instill the value of business tools (like a personal SWOT) and strategies for students’ career application, and (3) enable professionals to continuously progress in their careers through the use of these tools. This personal assessment tool will be identified in this article as 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.

INTRODUCTION

The purpose of this article is to (1) share with other professors the value of a career self-SWOT analysis for students, (2) encourage professors to instill the value of business tools (like a personal SWOT) and strategies for students’ career application, and (3) enable professionals to continuously progress in their careers through the use of these tools. This personal assessment tool will be identified in this article as 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.

To accomplish these three purposes, we need to first summarize the learning scenario that has involved the three coauthors over the past ten years. One of the coauthors, Mike Chertudi, Senior Marketing Director for Adobe, graduated in 2000 with his bachelor’s degree at a

university in the western U.S. As a business student, Chertudi learned the strategy framework of applying SWOT analysis in evaluating businesses in his marketing class from one coauthor and resume writing from the other coauthor. Following graduation, Chertudi successfully applied SWOT to two separate start-up businesses—one in Massachusetts and one in Utah—both in the high-tech sector. Additionally, he applied his well-developed writing and speaking skills to numerous business situations.

Visiting business communication classes in 2006 as a guest lecturer at his alma mater, Chertudi spoke to students on the importance of writing and giving oral presentations in his business experience since graduation. As a sidelight, he also indicated his SMART goal (a business acronym for Specific, Measurable, Actionable, Realistic, and Time-bound) and his personal SWOT at the time. His SMART goal included becoming a marketing executive of a billion dollar company within 10 years. This type of role for an organization this size would have a staff estimated at 150 marketers and a program budget of approximately \$70 million. By applying the SWOT analysis tool from business, he shared that he had an experience “weakness gap” in managing both staff and budget. At the time, he had a staff of 10 people and a budget approximating \$3 million and knew that he would have to close this gap over the next 10 years for his goal to become a reality.

As the years progressed, Chertudi continued guest lecturing to the co-author’s class and sharing his self-SWOT analysis as it pertained to achieving his SMART career goal (see Exhibit 3). Each year, he was able to grow his career through hard work, results, and promotions. In 2009, his company was acquired by Adobe Systems. At that time, he shared his SMART goal with the head of Adobe’s marketing arm. While articulating his desires, he emphasized that if his new role didn’t offer the opportunity to achieve his goal then he would pursue other opportunities right away. Because of his results-oriented reputation and strong leadership capability, Adobe greatly expanded his scope of responsibility and helped him to close his experience “gap” in an even more dramatic way. Adobe asked him to manage a team of 45 and a budget of \$40 million. In 2012, three years from achieving his goal, he has been able to close his experience “gap” even more while continuing to accentuate his strengths. He manages a staff of over 100 employees and a budget that has surpassed what he needs to achieve his SMART goal in conjunction with his self-SWOT.

Chertudi has continued to emphasize the need for a self-SWOT analysis as well as an external job market analysis to evaluate opportunities and threats within specific industries and geographies before embarking on career search activities. As he has guest-lectured in the coauthor’s business communication classes, the students have been extremely attentive, given his success in one of the largest software companies in the world. This example illustrates not only the application of a principle learned in college to business, such as a SWOT analysis, but also the application of the same principle to students’ careers.

Business communication instructors help students with several skills in the job search process as an integral part of the course. However, if students do not begin with a clear understanding of their career situation, the outcome of their other job search activities may be misdirected. Starting the job search process with a self-SWOT assignment can guide students in personally assessing their strengths, weaknesses, and the work environment.

To obtain internships and career opportunities, students need to construct an effective cover letter, resume, and career portfolio. Business communication instructors typically teach these job search tools as well as job interviewing skills. Additionally, instructors help students understand that developing positive networking skills can enhance long-term relationships with others and facilitate career growth opportunities. However, 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.

BACKGROUND

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.

Businesses of all sizes are counseled to use SWOT analysis to frequently assess the wellness of their firms and determine the next steps to improve operations. Likewise, business educators promote the usefulness of SWOT through management, marketing, and entrepreneurship textbooks. In his small business management text, Longenecker, et.al. (2010) emphasized the importance of company management having a clear understanding of their organization's strong points, drawbacks, market opportunities, and threats to the company's operating environment (social, technological, economic, political, and other environmental variables).

Rue and Byars (2009), authors of a popular management text for many years, are strong proponents of teaching SWOT. Conducting an internal analysis of strengths and weaknesses forces questions like: What do we—as an organization—do well? What do we do poorly?

Threats and opportunities in the environment are identified by assessing the company's environment—everything outside the company.

Schools of business not only teach SWOT in various business courses, the SWOT tool has also been used in other meaningful ways. For instance, Kuiper and Thomas (2000) reported that the Darla Moore School of Business at the University of South Carolina used SWOT analysis in proposing and implementing a center for business communication.

Assessment in companies and other organizations has proven fruitful. Likewise, college instruction has provided means for students to assess their interests and attitudes. For example, Santiago (1999) noted that a business communication class was required to assess personal traits, including values, skills, and objectives by using online employment profile tools.

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.

Before students begin to market themselves, however, they need to thoroughly understand themselves in terms of strengths and weaknesses and objectively assess the opportunities and threats pertinent to their career goals.

Application—from Business to Student

Using SWOT analysis, wise managers periodically conduct thorough company introspection. They analyze opportunities on the horizon or immediately in their path and take appropriate action in light of current or future environmental factors. Whether reviewing the feasibility of starting a new business or determining corrective action to take for an existing firm, business leaders must consider their company's strengths and weaknesses; identify threats from legislation, economy, technology, changing social values, and competitors; and seize new opportunities to meet the demands of the ever-changing marketplace.

Instructors of college marketing and entrepreneurship courses utilize the SWOT technique as an essential tool in creating a start-up business or analyzing the status of a longstanding business. Business communication instructors should provide an opportunity for students to understand the benefits of conducting a self-SWOT analysis before writing a cover letter, resume, and career portfolio.

The self-SWOT outcome can greatly influence a student's career direction and future job activities. If a student can correctly self-assess key strengths and identify shortcomings, he or she can better prepare for the appropriate career upon graduation. For example, 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 Assignment

Before teaching the use of the cover letter and resume, one of the co-authors, a business communication instructor, lectures on the self-SWOT assignment and provides the template shown in Exhibit 1:

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)

_____?

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.

One of the completed assignments by a student in a business communications class is shown as an example in Exhibit 2.

Exhibit 2. Self-SWOT Assignment (Completed)

Name: [Withheld for privacy sake]

[Written by a business communications student, majoring in Business Administration, Goddard School of Business, Weber State University, Ogden, UT]

Strengths:

- Skills: Organization, interpersonal communication, problem solving, multitasking, and creative abilities.
- Education: Three years of college in business administration and marketing.
- Experience: Two years work experience in retail and customer service, designed marketing plan for a school fundraising project.
- Networking: Started college as a Huntsman Scholar – have kept contact with professors and fellow students, had the opportunity to have dinner with John M. Huntsman and a few of his CEOs, and have a neighbor in marketing industry.
- Character traits: Determined, hardworking, motivated, enduring, loyal, trustworthy, thrifty, and resourceful.
- Extra curricular: Member of the society for the advancement of ethical leadership, and raised \$1,000 for small student enterprise and development organization.

Weaknesses:

- Gaps in skills: Additional proficiency needed in business software such as word processing, spreadsheets, and presentations.
- Gaps in education: Not quite graduated, may need to focus major in a more specific business discipline such as marketing to be more competitive for marketing positions.
- Gaps in experience: No marketing work experience, no internship.
- Gaps in networking: need to know more people in marketing field.
- Gaps in character traits: Fear of change, impatient.
- Other: push the snooze button too much and occasionally late for class.

Opportunities:

- Technology: Online marketing, YouTube, mass communication
- Legislation: Government favors big business, bailouts.
- Economy: Hopefully on the mend, plan on market recover by graduation.
- Demographics of Population: Large population, city, lots of job opportunities.
- Geographical: Marketing companies are in the area.
- Sectors: Much growth in high-tech and biomedical sectors.

Threats:

- Technology: Because of mass communication less people are required to cover a large area.
- Legislation: Government regulations restrict some marketing practices—especially in digital marketing with uncertain outcomes in pending privacy laws.
- Social Values: Some people may discriminate against being a democrat in a republican state.
- Economy: Current situations are terrible, unemployment is sky high.
- Demographics of Population: because I live in a crowded area there is more competition.
- Geographical: May have to move out of state to get a job.
- Sectors: May want to stay away from marketing positions within automotive, financial services, construction, and real estate.
- Other: Future employers may not take me seriously because I am young.

This thoughtful, honest evaluation was representative of many of the students' work on this assignment. Several students took time to write to the business communication instructor, noting a new self-awareness and realization of actions needed.

Lifetime Use of Self-SWOT

Just as business managers conduct an annual SWOT of their organization's situation, graduates should do likewise. One of our 2000 graduates, now a senior marketing director for Adobe, one of the largest software companies in the world, shared his self-SWOT in a business communications class in 2006. Through his self-SWOT, shown in Exhibit 3, he has identified the position and responsibilities he plans to attain in by 2016.

Exhibit 3. SWOT Example from a Graduate

Goal: *"I want to be the Chief Marketing Officer of a \$1B+ software company, lead a staff of 150+ people and carefully manage a \$70MM+ budget to fuel and influence its growth, and earn \$500,000/yr by the time I'm 39 years old."*

Self -SWOT Analysis

(These SWOT attributes were specifically written in the context of achieving the above SMART goal)

1. Strengths

- a. Skills: B2B/B2C Marketing, digital marketing, leadership, management, tackling complex solutions to drive results.
- b. Attributes: Collaborative, optimistic, extroverted, analytical, persuasive, strategic, yet an underlying understanding of tactical execution.

- c. Experiences: Managing teams of people (35) and \$40+MM budgets, presenting to large groups of people, building business cases for further resource and investment.
 - d. Networking: Well-networked among senior marketers and CEOs within the marketing technology sector; am on the list of top executive search firms.
2. Weaknesses
- a. Skills Gaps: Educational perceptions e.g. no MBA.
 - b. Bad Habits or Attributes: Time awareness, email communications, over-commit and reluctant to say “No.”
 - c. Lacking Experiences: Managing larger teams (35+) and larger budgets (\$50M+), broad branding campaigns, directly managing corporate communications and product marketing, age – most heads of marketing of companies this size have more experience in terms of time behind them.
 - d. Networking: Need more diversified connections with CEOs (future hiring managers) within the broader technology sector.
3. Opportunities
- a. Traditional marketing expertise (broadcast TV, Radio, and print) is giving way to more efficient digital marketing (search engines, social mobile, etc) due to the reallocation of corporate marketing budgets from traditional to digital marketing channels.
 - b. Voids in both B2B and B2C marketing leadership and seniority. Lots of junior marketers, but less with senior experience and successful track records of driving corporate growth with measurable results.
4. Threats
- a. Technology bubbles, Marketing Execs known to churn every 3 years
 - b. Geographical concerns: most \$1B tech companies in Bay area—may need to move.

This self-SWOT assignment can be very valuable to students in business communication and managerial communication courses and in graduates’ future career decisions.

TEACHING WITH A LONG-TERM PERSPECTIVE

The coauthors encourage instructors to build a curriculum which can provide lasting career impact, not simply prepare students for their first job. Assignments should be examined in this light. For example, instructors teaching management principles courses often require their students to interview an executive manager in industry regarding the use of management principles in his/her organization. Instructors could assist students in their careers by attaching an informational interview questionnaire to the assignment. The student would ask the executive

manager a few career-pertinent questions, such as: “What does it take to succeed in your industry?” “What do you like/dislike about your job?” By asking questions like these, students can gather insights to help them be more successful in building their careers.

Organizational behavior instructors often require students to assess the quality of company mission statements. This assignment could be enlarged to require students to also write their own personal mission statement. By doing so, a student can see the value of focusing efforts continually on overarching personal characteristics and personal development.

Thus, when instructors expand assignments throughout the business curriculum, they can provide lasting impact on students as they focus on their long-term career success.

CONCLUSIONS

As can be seen from the above examples, 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. A graduate can utilize the self-SWOT analysis tool just as this professional in Exhibit 3 has done throughout his career. Overall, undergraduate students and graduate students who objectively conduct a self-SWOT will focus more clearly on their present situation while better assessing external opportunities and threats.

In several business courses, tools and knowledge of good business practice which deal with organizational advancement can be applied to individual advancement as well. Instructors are encouraged to show students how business tools can be applied to personal development, helping to ensure long-term career success.

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THE APPLICATION OF WEB-BASED LEARNING IN A MANAGERIAL ACCOUNTING COURSE

Gail Hoover King, Purdue University Calumet
Songtao Mo, Purdue University Calumet

ABSTRACT

This paper examines the effect of students' activities on a web-based learning system (Connect) in the introductory managerial accounting course. We find that a student's performance on Connect assignments is positively associated with the overall course grade. The empirical evidence indicates that web-based learning is an effective instrument to enhance students' learning efficiency. Additionally, the system can serve as a mechanism for instructors to monitor students' activities on course preparation and practice outside of the classroom.

The contributions of the study are two-fold. The paper advances the research on business education by providing insights on web-based learning using objective data. The study also sheds light on the incorporation of instructional technology to improve students' learning experience.

INTRODUCTION

Recent decades have witnessed advances in technology and increased popularity of personal computers. These changes have made it possible for "educational technology" to be implemented in the learning process. Review of accounting educational research also reflects the trend to incorporate technological advances in instruction and to promote a student-centered learning environment.

Most accounting courses are quantitatively oriented. The nature of accounting courses is especially prominent in managerial accounting courses, which involve significant use of numbers and formulas. Many problems in managerial accounting classes are difficult to master by simply watching the demonstrations of how to solve problems in class. Effective understanding of the concepts and computation in managerial accounting courses requires considerable practice, including the format of homework assignments. As such, many university accounting faculty take advantage of the online homework management systems offered by textbook publishers. Such systems are beneficial because students can practice and receive immediate feedback, which should allow more time in class for other learning activities. This paper is an analysis of the use of the McGraw-Hill publisher's online homework management system (Connect) in an introductory managerial accounting course. In this course, Connect were constructed to

encourage reading the chapter before it was discussed in class, and to allow students to complete homework as problem-solving exercises instead of worked examples.

This study provides empirical evidence on the effectiveness of a web-based learning system. Specifically, this paper is one of the first few research projects using objective data to investigate the association between students' activities on Connect and students' overall grades in an accounting course. Additionally, a useful learning tool to students, Connect can serve as an important monitoring instrument for instructors. Through the close monitoring of students' activities on Connect, instructors are able to identify "red-flags" for students having trouble with the coursework.

We first provide an overview of the design and implementation of web-based homework as the background. Then we review the literature on the importance of homework and web-based homework systems to develop our hypotheses for empirical testing. The research question regarding the claimed benefits of web-based learning is tested by data collected from five classes of the same course, "the introduction to managerial accounting," taught by the same faculty member. Empirical results are discussed, followed by the summary of findings and discussion on the limitations of the study.

THE DESIGN AND IMPLEMENTATION OF WEB-BASED LEARNING

Teaching Methodology Using Online Homework

The use of Connect, a web-based homework system provided by McGraw-Hill, was carefully designed and implemented in the introductory managerial accounting course. The incorporation of Connect was motivated by prior educational research on the need for students' preparation and practice. Research has shown that student success is increased when students complete homework (e.g., Rayburn & Rayburn, 1999; Cooper, Robinson, & Patall, 2006). Lacking an effective mechanism to track students' work, instructors sometimes overestimate students' understanding on the association of success in the course and the need to practice (doing homework) and prepare before the class (reading text) (e.g., Radhakrishnan, Lam, & Ho, 2009). Based on the pedagogical literature, the instructor developed and designed the assignments on Connect to include two parts: first, the homework assignments for students' practice of problem-solving exercises, and second, reading assignments for students' preparation prior to the lectures. The interactive features offered by Connect were also closely examined and used to improve students' learning efficiency.

Connect Homework Assignments

The homework assignments on Connect contain problem-solving exercises. Students were given two attempts and the attempts were split into two separate assignments (for example:

Chapter 1A and Chapter 1B) and students were given only one attempt per assignment. The rationale was that students would do better on the exam, if they approached the online homework assignments as problem-solving exercises. Also, extra credit was offered if students earned 70% or better on the first (A) assignment. However, it was also important not to discourage students from practicing. Therefore, if the student completed the first assignment earning at least 70%, he/she could practice the second (B) assignment without penalty regardless of the score received on the second assignment. When students did not earn 70% on the first (A) assignment, then the average of both assignments would be used to determine their homework score, and no extra credit would be earned.

The point scale for scoring the Connect (online) assignments is shown in Table 1.

Table 1: Online Assignment Point Scale	
Average percentage earned on all attempts allowed	Points earned
70 – 100 %	3
60 – 70 %	2
51-60 %	1
< 51%	0

If the average score on both assignments (A and B) was greater than or equal to 70%, the student earned three points (the maximum score possible); an average score between 60% and 69% was worth two points; an average score between 51% and 59% was worth one point; and if the average score was less than 51%, no points were earned. The purpose of this policy was to prevent students from receiving full credit without putting effort into completing the first (A) assignment, printing the answers and then mimicking the solutions on the second (B) assignment. Research has indicated that problem-solving exercises are just as effective as worked-problems when students have prior knowledge of a subject. The students in this course had prior accounting knowledge since they had taken and passed the prerequisite financial accounting course. In addition, homework assignments were due after the subject had been discussed in class. Therefore, this practice was meant to make the first attempt a problem-solving exercise. The instructor believed this policy would help students because, unlike the homework assignments that set up the format for the solution (which in many ways helps the student solve the problem), the exams require students to solve the problems without providing a format.

Connect Reading Assignments

In order to promote reading the chapter prior to class discussion without taking class time for quizzes, the instructor added online reading homework assignments. The primary purpose of “Reading Assignments” was to have students read and understand basic topics identified by the instructor prior to discussing the chapter in class. These assignments were due before class on the day that the chapter was introduced, and students were given only one attempt to complete the

assignments without hints or any other online help. The assignments covered the new terminology and equations from the chapter using both end-of-chapter and test bank questions. The assignments were scored the same as homework assignments, as discussed earlier. Students received three points if they scored 70% or more on the assignment, and so forth (see Table 1). Even though the students only had one attempt, unlike a quiz, there is no time limit, which allowed sufficient time for students to look up each answer to complete the assignment.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Textbook publishers introduced web-based homework systems to aid in students' study outside of classroom. The web-based learning systems, in addition to offering opportunities for students' practice, provide immediate feedback to facilitate students' learning, and offer students 24/7 access, which allows them to study whenever they choose. Most research finds no conclusive results regarding positive impact of web-based learning system on students' performance. Many studies focus on teaching in the science field, such as mathematics and physics (e.g., Hauk & Segalla, 2005; Dufresne, et. al., 2002) and find that the most important factor is sufficient time spent by students in understanding and learning the materials.

Quite a few researchers have investigated the association between web-based homework and students' performance relative to paper-based homework. The results suggested that the format of homework (paper vs. web-based) is not relevant. The research indicated that students completing homework online was as effective as traditional paper-and-pen homework (Dufresne, et al, 2002; Hauk & Segalla, 2005; and Mestre, et al, 2002), and the immediate feedback of the online system was shown to be appreciated by students (Miller & Westmoreland, 1998).

Though the effect of homework in student success is not completely explained in previous research, homework assignments continue to be an important component of business education, especially in accounting. For instance, Rayburn and Rayburn (1999), among other factors, study the impact of homework in the introductory managerial accounting courses. Their findings suggest that students demonstrating consistent pattern in their completion of homework problems tend to be better performers (Rayburn & Rayburn, 1999). Given the importance of homework assignments in accounting education and the irrelevance of homework delivery method, we developed our first hypothesis to test the association between students' performance on Connect homework assignments and their course grade.

H1: A student with better performance in Connect homework assignments would be more likely to be a better performer in the overall course.

Accounting educators have been aware of the challenges with respect to how to motivate students in the introductory level accounting courses (e.g., Baldwin, 1980; Braun & Sellers, 2012). In the experiment on positioning the quiz before or after lectures and discussion, Baldwin

(1980) find that the group of students taking quizzes prior to the lectures and discussions perform better on exams than the other group. The findings indicate that the lectures could become more meaningful when students are prepared and engaged. In a similar vein, Braun and Sellers (2012) use “Daily Motivational Quiz” at the beginning of the class to encourage student preparation and participation. Their empirical evidence suggests that this teaching technique is associated with reduced course failure rates and increased level of professional ethics in students. Based on prior literature, we hypothesized that a more prepared student, measured by better performance in the Connect reading assignments, is more likely to perform better in the course.

H2: A student with better performance in Connect reading assignments would be more likely to be a better performer in the overall course.

BACKGROUND AND DATA

Course Information and Grading Structure

The data for this study were collected from a public university located in the Midwestern area. The School of Management of the university offers two degrees related to accounting – Bachelor of Science in Management with accounting concentration (B.S. in management) and Bachelor of Science in Accounting (B.S. in accounting). In both programs, the introduction to Managerial Accounting (MGMT 201) is a required core course. All Bachelor of Science degree students are required to complete the required courses (including managerial accounting) with a grade of “C” or better.

The overall grade in the course is based on attendance, assignments (including a few paper-and-pen assignments and Connect reading and homework assignments), and exams. Final grades are based on the points students earn as a percentage of total points possible using a ninety, eighty, seventy, sixty percent scale for A, B, C, D, respectively. Table 2 provides an explanation of the grade components used to determine students’ grades.

The data for this study was based on using Connect associated with the textbook entitled “Introduction to Managerial Accounting”, 5th edition by Brewer, Garrison, and Noreen, published by McGraw-Hill. The Connect software for this text was the version available during 2011 and the first half of 2012 (prior to the upgraded summer 2012 version).

Table 3 shows the course grading structure of the classes used in this study. The grading structure was not identical due to the instructor’s adjustments based on pedagogical considerations. As illustrated, the distribution of the points over the three primary components, Attendance, Assignment, and Exams, was consistent across the classes. The exams constituted the major component of grading in all classes, ranging from 80% to 86.96%. The assignments, of

which Connect assignments were an important contributing factor, accounted for 8.7% to 17% of the course grade. Attendance, on the other hand, was 2.98%-6% of the course grade.

Table 2: Grade Components Used To Determine Course Grade

Attendance: In accordance with university policy, students are allowed to miss two weeks of class during the semester without affecting their attendance grade. If students miss more than allowed classes, points are deducted. The first missed class above the allowed absences results in a five point deduction, after which any further absences result in a loss of 1 point per absence.

Reading Assignments (on Connect): Generally, there is an online reading assignment per chapter. Students are given one attempt, and their score is determined using the scale shown previously in Table 1. While completing the online reading assignments, students are not given online access to any online resources.

Homework (On Connect): Students are given two attempts on each chapter assignment, but the attempts are set up as two separate assignments. The first assignment (attempt) consists of static problems from the book. The second assignment (attempt) includes the same problems as the first assignment, except the problems are algorithmic (the numbers change). While completing the assignment, students are allowed to use the online resources of eBook and hints, when available. They can also check their work one time per item during that assignment. Upon submitting an assignment for grading, students are given detailed feedback.

Exams: Exams are given in class for a complete class period. Generally each exam covers two to three chapters.

Assignments (In-class and pen-paper homework assignments): Students are graded on effort, not on correct answers. For example, if the assignment is to complete three problems and a student completes two, even if the solutions are not correct, the student earns two of three points. Note: The total grade for the assignment is based on reading assignments, homework, and class assignments. Students are allowed to miss nine assignment points without affecting the assignment grade. (Very few paper- and-pen homework assignments were graded, so some students did not complete the paper-and-pen homework, taking the “chance” that it would not be graded, or if it was graded, it would be part of the nine points they were allowed to miss.

Extra Credit: Extra credit points are added directly to the total points earned in the course.

Data Definition and Descriptive Statistics

The definition of each variable was presented in Table 4. The data for this study were retrieved from two sources: the data generated by the Connect course sites, and the grade books compiled by the instructor. Each variable was computed by using the total points earned by individual students on the specific assignments as the numerator, and the total possible points on the specific assignments as the denominator. The variables “Reading Score”, “Homework Score”, and “Connect Score” were computed based on the data from Connect. The “Homework Score” was computed using the better score that students earned from the two attempts of Connect homework assignments. “Connect Score” was computed by adding “Reading Score” and “Homework Score”. The remaining six variables were computed based on the grade books.

Table 3: Course Grading Structure

Course	Attendance	Assignment	Exams	Extra Credit
Spring 2011 (Day Section)	4.35%	8.70% (Connect assignments were 79.2% of this component)	86.96%	1.74% ^a
Spring 2011 (Night Section)	2.98%	11.91% (Connect assignments were 69.6% of this component)	85.11%	2.98% ^b
Fall 2011 (Day Section 1)	6%	12% (Connect assignments were 67.4% of this component)	82%	4.60% ^c
Fall 2011 (Day Section 2)	6%	12% (Connect assignments were 67.4% of this component)	82%	4.60% ^c
Spring 2012 (Day Section)	3%	17% (Connect assignments were 80.8% of this component)	80%	1.80% ^d

Notes: the percentages are rounded. The data were collected from the course “introduction to managerial accounting”.

^a Extra Credit. Ten total extra credit points could be earned. Total points possible in class were 575, so the extra credit could increase students’ grades by 1.74%. On average, the students earned 9.78 points out of 10 in extra credit points or 1.7% of total points possible. Five extra credit points could be earned by completing the first (A) assignment with a score of 70% or better. An additional five points was based on scores on two quizzes (worth 2 and 3 points).

^b Extra Credit. Fourteen total extra credit points could be earned. Total points possible in class were 470, so the extra credit could increase students’ grades by 2.98%. On average, the students earned 10.2 points out of 14 in extra credit points or 2.17% of total points possible. The extra credit was based on completing the first (A) assignment with a score of 70% or better (total possible 6 points) and completing with a score of 70% or better for the three chapter review assignment (chapters 9, 10, 11) on Connect (total possible: 9 points).

^c Extra Credit. Twenty-three total extra credit points could be earned. Total points possible in class were 500, so the extra credit could increase students’ grades by 4.60%. On average, the students in section one earned 12.8 points out of 23 in extra credit points or 2.57% of total points possible. On average, the students in section two earned 11.6 points out of 23 in extra credit points or 2.32% of total points possible. The extra credit was based on completing the “A” assignments with a score of 70% or greater for one extra credit point per occurrence up to a maximum of 8 points. In addition, students could earn 5 points extra credit each on LearnSmart Assignments for chapters 1, 10 and 11 with the maximum 15 points possible.

^d An extra 18total extra credit points could be earned. Total points possible in class were 1000, so the extra credit could increase students’ grades by 1.8%. On average, the students earned 4.02 points out of 18 extra credit points or .40% of total points possible. The extra credit was based on students completing LearnSmart Assignments prior to the exam. Extra credit was only available if the student earned at least 60% on the LearnSmart assignment. The extra credit points were computed as the percentage earned on the LearnSmart assignments times 2 points. The maximum extra credit possible was 18, with 1000 total points possible for the entire course. Average extra credit points earned was 5 points or .5% of total points possible in the course.

Table 4: Variable Definition

Variable	Variable Type	Variable Definition
Reading Score	Numeric	Student performance in reading assignments on Connect (%)
Homework Score	Numeric	Student performance in homework assignments on Connect (%)
Exam	Numeric	Student performance in exams (%)
Course	Numeric	Student performance in the course, including extra credit (%)
Course (No EC)	Numeric	Student performance in the course, excluding extra credit (%)
Attendance	Numeric	Student performance in attendance (%)
Assignment	Numeric	Student performance in assignments (Connect and Pen & Paper) (%)
EC	Numeric	Student performance in extra credit assignments (%)

A total of 127 observations were collected from the five classes. The descriptive statistics were illustrated in Table 4. The Skewness and Kurtosis statistics indicated that all of the variables were not normally distributed. The variables were standardized in further testing to meet the normal distribution requirement of regression models.

Table 5: Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Reading Score	127	0.00	1.00	0.75	0.21	-1.12	0.21	1.45	0.43
Homework Score	127	0.00	1.00	0.80	0.19	-1.83	0.21	3.92	0.43
Exam	127	0.00	0.99	0.79	0.15	-2.60	0.21	11.44	0.43
Course	127	0.04	1.03	0.83	0.14	-2.73	0.21	12.40	0.43
Course(No EC)	127	0.04	0.99	0.81	0.14	-2.79	0.21	12.76	0.43
Attendance	127	0.35	1.00	0.97	0.10	-4.14	0.21	18.64	0.43
Assignment	127	0.15	1.00	0.87	0.18	-1.70	0.21	2.94	0.43
EC	127	0.00	1.00	0.57	0.37	-0.35	0.21	-1.42	0.43

RESULTS AND DISCUSSION

The OLS regression models were utilized to test the hypotheses. Models 1A and 1B presented the regression models with “Course” as the dependent variable, and “Homework Score” and “Reading Score” as the predictors, respectively. The results showed the R-square values for Models 1A and 1B are .473, and .200, and the predictors “Homework Score” and “Reading Score” were both statistically significant with p-value < 0.05. Models 2A and 2B represented the sensitivity tests by replacing “Course” with “Course (No EC)”, and the empirical evidence showed that the results were not statistically different from those of models 1A and 1B. The data analysis showed that students’ course grades were positively associated with students’ performance in both homework and reading assignments on Connect, thus we conclude that empirical evidence supported both hypotheses.

Another eight regression models were run to test the impact of “Homework Score” and “Reading Score” on each of the four components of course grade (exam, attendance, assignment, and extra credit). The statistics presented in Table 5 showed that both variables (“Homework Score” and “Reading Score”) were significantly associated with each component of the course grade.

The results of data analysis suggest that the use of a web-learning instrument, Connect published by McGraw-Hill in this study, is helpful to improve students’ learning experience. The evidence that students’ performance on Connect is positively associated with not only the overall course grade, but also every individual component of the grade structure, indicates that better performers on Connect assignments are more motivated to come to lectures (Attendance), to

master the problem solving skills (Exam), and to engage in other class activities (Extra Credit). The data on students' activities and performance extracted from Connect is of assistance to instructors to monitor students' learning progress.

Table 5: Regression Models					
Model	Dependent Variable	Predictor	R-square	Unstandardized Coefficient	p-value
1A	Course	Homework Score	.473	.688	.000**
1B	Course	Reading Score	.200	.455	.000**
2A	Course (No EC)	Homework Score	.465	.862	.000**
2B	Course (No EC)	Reading Score	.205	.453	.000**
3.1A	Exam	Homework Score	.369	.608	.000**
3.1B	Exam	Reading Score	.151	.388	.000**
3.2A	Attendance	Homework Score	.199	.446	.000**
3.2B	Attendance	Reading Score	.152	.390	.000**
3.3A	Assignment	Homework Score	.668	.817	.000**
3.3B	Assignment	Reading Score	.393	.627	.000**
3.4A	EC	Homework Score	.119	.345	.000**
3.4B	EC	Reading Score	.147	.384	.000**
Notes: All of the variables in the regression models are in the format of standardized scores. ** significant at $p < 0.05$; * significant at $p < 0.10$					

SUMMARY AND CONCLUDING REMARKS

This study uses objective data retrieved from Connect, a web-based learning system, to analyze the effect of web-based learning system on students' performance. Other variables such as geographical variables may be considered for future studies. The implications of this study are also limited because the data were collected from one course taught by one faculty member in one university setting. Consequently, the generalization of the empirical evidence and implications should be approached with caution.

The contributions of the study are two-fold. First, the paper advances the research on business education by providing insights on web-based learning using objective data. The study also sheds light on the incorporation of instructional technology to improve students' learning experience.

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FACULTY EXPECTATIONS OF ADMINISTRATION: PREDICTORS OF INTENTION TO REPORT STUDENT PLAGIARISM

Ashley J. Bennington, Texas A&M University-Kingsville

Harmeet Singh, Texas A&M University-Kingsville

ABSTRACT

The issue of student plagiarism in colleges and universities has been receiving increased attention in recent years. Many studies show that faculty have a variety of responses when they suspect plagiarism; some report it and others choose to address it themselves. Because the identification of student plagiarism and the choice to report or not report rests with faculty, this study examines faculty perceptions of administration's role and how those perceptions influence their intent to report plagiarism. The Theory of Planned Behavior serves as the framework to examine this issue. A direct correlation was found between faculty behavioral beliefs, normative beliefs, and control beliefs and their intention to report plagiarism to administration. The analysis finds that faculty would be more likely to address suspected acts of student plagiarism if there was an established procedure for faculty to follow and that they would be more likely to file reports if a committee of faculty, students, and administrators adjudicated suspected acts of student plagiarism.

LITERATURE

The issue of student plagiarism in colleges and universities has been receiving increased attention in recent years. The proliferation of information available on the internet has been identified as a major contributor to present day plagiarism (Decoo, 2002; Kennedy, Nowak, Raghuraman, Thomas, & David, 2000). Numerous studies have examined why students plagiarize (Perry, 2010; Williams, 2007; Park 2003). Institutional policies and standards for punishment vary among institutions (Martin, 1994). To further complicate the issue, there are many positions on what should be done to address the issue (Hrasky & Kronenberg 2011; Park, 2004; Decoo, 2002). Additionally, there is no agreement on exactly what constitutes plagiarism (Walker, 2010; Campbell, 2007; Sutherland-Smith, 2005; Park, 2003; Roig, 2001).

Several studies indicate that faculty choices about reporting plagiarism were dependent on their perceptions of the fairness of the institutions' handling of the cases (DeJager & Brown, 2010; Decoo, 2002). Other institutional issues identified in the literature are faculty belief in the need for emphasis on prevention through education (Freeman & Lind-Balta, 2010; Devlin, 2006; Park, 2004) and a need for reexamination of assessment design (Hrasky & Kronenberg, 2011).

Because the identification of a case of student plagiarism rests with the faculty, we are interested in identifying factors that influence faculty members as they encounter plagiarism and make choices about how to respond. In their study of academic misconduct, Koljatic & Sylva (2002) found a significant relationship between faculty beliefs and their choices of actions in cases of academic misconduct. More specifically, this study examines how faculty responses to student plagiarism are influenced by faculty perceptions of how their administration will handle a report of student plagiarism.

The methodology, survey design, demographics, and description of how the data were analyzed are the same as another paper published in *Academy of Educational Leadership Journal* (AELJ) by Singh and Bennington (2012). However, the questions used in this study and the target behavior questions are different.

Research question: How do faculty perceptions of administration policies on plagiarism influence faculty intention to report plagiarism?

METHODOLOGY

“The survey was designed according to the theoretical framework of Icek Ajzen’s Theory of Planned Behavior (TPB) (2010) and questions developed based on a literature review of TPB and research on plagiarism in colleges and universities. Figure 1 is a model of the theory as applied in this study.

The Theory of Planned Behavior has been the basis of hundreds of research articles and the efficacy of the theory was demonstrated in a meta-analysis of 185 TPB studies (Armitage & Conner, 2001). In short, a well-designed TPB survey predicts the subject’s likelihood of enacting the target behavior. The survey measures a subject’s attitude towards a behavior; subjective norms; perceived behavioral control; and intention to enact the behavior.

In this study the target behavior is faculty intention to address suspected acts of student plagiarism. The subjective norms are faculty beliefs and attitudes about social pressures to enact the behavior-in this case, beliefs about social norms among students, other faculty, and administration. Perceived behavioral control identifies faculty beliefs about the ease or difficulty of addressing suspected acts of plagiarism.

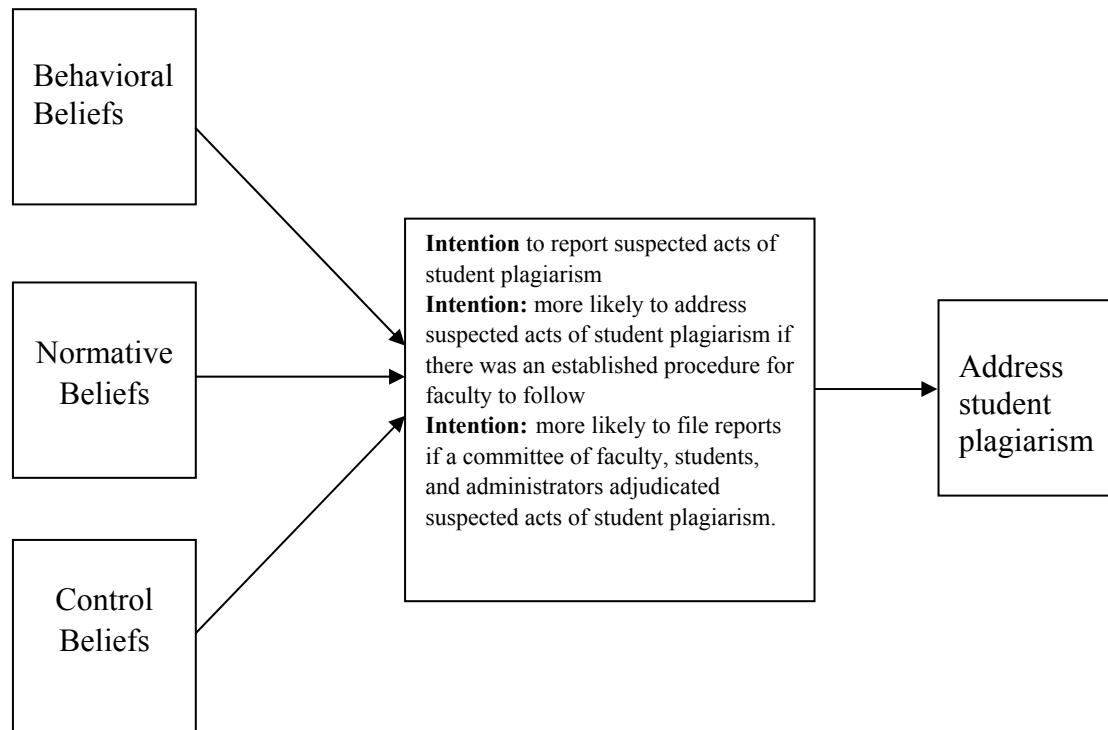
The subjects for the survey were the entire faculty at Texas A&M University-Kingsville (348 faculty members as of spring 2010), including tenured, full and part time instructors. The University Institutional Review Board approved sending out the survey via faculty email.

In order to send the survey questionnaire to the interest population, the entire questionnaire was uploaded on the Survey Monkey® (internet based response collection tool) by enrolling in the Pro Plan for two months. Special care was taken not to record the respondents’ computer IP address in order not to reveal the identity of the same. The anonymity of response was also conveyed to the population of interest.

An email was sent to the entire faculty on April 21, 2010, requesting their participation in the survey and included the online link to the survey questionnaire. Faculty members had more than four weeks to access the link and complete the survey. After the first email, four subsequent

reminder emails along with the survey link were sent to the faculty members. The link to the survey on the Survey Monkey[®] was disabled on May 22, 2010, after which the results were downloaded in the Microsoft Excel[®] format.” (Singh & Bennington, 2012).

Figure 1: Applied Model for Theory of Planned Behavior.



SURVEY DESIGN

Specific questions from the same survey led to another research question that was analyzed through the framework of TPB as well. The earlier analysis has already been published in AELJ. Although we are utilizing different set of questions from the same survey, the survey design explanation is the same as presented in the earlier analysis.

“Out of 42 questions in the survey, 35 were aimed at recording faculty beliefs, attitudes and intentions, 3 were related to the past behavior and 4 regarding demographics. Out of the 35 belief based questions, 2 questions had 3 categorical response options and 1 question had 2 options. So in all there were a total of 40 queries to be answered regarding the beliefs and attitudes through 35 questions.

All the belief-based questions could be answered on scale of 1 to 6 with 1 being affirmative response to the question and 5 being the negative and with 6 having the option of N/A (not applicable to the respondent). The N/A option was intended to measure accurate response rate. Sometimes the length of survey can prompt the respondent to skip some questions

in order to complete the survey in a short time. So an adjustment was made through the survey tool, Survey Monkey[®], used for data collection. It was set to require the respondent to answer all the questions before the survey could be submitted. It was designed to encourage the respondent to read all questions before the survey could be submitted. However a respondent concludes that a particular question does not relate to her / him, the respondent could provide a fuzzy response. In order to avoid such false response, N/A option was included in the overall scale. Two out of three questions concerning past actions were open-ended and one had the option of eight responses. All the questions in the survey with the exception of questions regarding demographics had to be answered in order to submit the response.

Each variable is identified by a VAR code. The last two digits refer to the original question number in the survey. The number(s) before the last two digits refers to the variable the question represents” (Singh & Bennington, 2012)

Selection of Belief Variables

Review of the same survey from a different perspective led to selection of belief variables which were relevant with the current research question. The three belief categories: behavioral beliefs, normative beliefs, and control beliefs, warrants unique variables in each of these sets. The selection criterion is based on the groundwork of TPB. Following variables have been identified as close fit to the aforementioned belief sets:

Behavioral Beliefs

VAR 1304 How important is it for university administration to take lead in educating students about plagiarism?

VAR 1307 How important is it for university to take responsibility for handling student acts of plagiarism?

VAR1334 University administration would appropriately handle suspected acts of student plagiarism reported by faculty.

VAR1135 A committee of faculty, students, and administrators should handle adjudication of suspected acts of student plagiarism.

VAR1237 The definition of plagiarism in the student handbook is adequate for students to understand expectations.

Normative Beliefs

VAR420 University administration is very supportive of my reporting all suspected acts of student plagiarism.

VAR422C Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of plagiarism?

Control Beliefs

VAR506 How important is it for me to handle the acts of student plagiarism without the involvement of university administration?

VAR509 How important is it for me to report all acts of student plagiarism?

VAR510 How important is it for me to follow university standards in dealing with student plagiarism?

Intention Variables

Following questions, identified as intention variables from the same survey, lead to the research question for this study and hence are target behaviors for analysis

Target Behavior 1

VAR 321 I intend to report future suspected acts of student plagiarism to administration.

Target Behavior 2

VAR328 I would be more likely to address suspected acts of student plagiarism if there was an established procedure for faculty to follow.

Target Behavior 3

VAR 329 I would be more likely to file reports if a committee of faculty, students, and administrators adjudicated suspected acts of student plagiarism.

RESULTS

Demographics

Since it is the same survey already analyzed in previous study, the demographics remain the same. Hence the excerpts from the previous study:

“In all, 109 faculty members responded to the survey for a response rate of about 31 percent. Population demographics were requested from the University’s Institutional Research Department for comparison with the respondent demographics. Of the 109 total respondents, 106 answered the demographics about gender. There were 56 percent male respondents compared to a population demographic of 64 percent males; the 44 percent female respondents compare to a 36 percent population. The survey respondents fairly represented the population gender proportions. Moreover 84 percent of the respondents were full time faculty and the rest were part time. This breakdown is extremely close to the 87 percent full time faculty in the entire university” (Singh & Bennington, 2012)

Results - Significant Predictors of Target Behaviors

To be consistent with the TPB analysis, we have implemented the same techniques to analyze the results, but with different variables. The discussion of analysis is from the earlier study:

“The data were analyzed using the statistical software SPSS[®]. The N/A option on the scale was considered as a no response. Respondents who selected N/A on any question were removed from the step-wise linear regression. The SPSS automatically selects the number of respondents who have answered all the questions in a given analysis. So the number of respondents for individual regression analysis for different belief sets varied depending on the selection of N/A by some of the respondents. Moreover, the frequency analysis in SPSS was accomplished separately for every question, which identified the number of respondents for each individual question and removed the ones who had N/A responses. The results were analyzed based on scale of 1 to 5. Questions pertaining to particular beliefs and attitudes were identified so that step-wise linear regression against dependent variable of intention (Target behavior 1 and target behavior 2) questions could be run.” (Singh & Bennington, 2012).

Target behavior questions are different from the previous study. To answer the research question, three intention variables constitute three target behavior questions.

“All the questions in each belief set were grouped as independent variables and one intention question was set as a dependent variable to do step-wise linear regression. The regression, in addition to finding the correlation coefficient between dependent and set of independent variables, also omitted the non-significant independent variables from the set. The correlation coefficient represented by ‘R’ was given at a high level of significance represented by ‘p-value’” (Singh & Bennington, 2012).

DISCUSSION

In examining the likelihood of faculty to address suspected acts of student plagiarism in future, this study finds three intention variables that lead to the formation of the target behavior: intention to report with the current institution set-up; intention to address if there was an established procedure to follow; and intention to report student plagiarism if there was an adjudicating committee of faculty, students, and administration. These target behavior questions have high response rate: target behaviors 1 and 3 have response rates of 95.4 percent each and target behavior 2 has a response rate of 90.8 percent. These are analyzed at two different levels: one at a superficial level explaining the response percentages, i.e. frequency analysis and the other by regression depicting any correlation that the target behaviors may have with the belief variables. Both types of analyses provide interesting details about faculty perceptions of administrative policies. All the results are presented in detail in appendices as: regression analysis in appendix A; frequency analysis in appendix B; and statistical means and standard deviations in appendix C.

Regression Analysis

All the belief sets: behavioral; normative; and control have been regressed as independent variables to see if any of these have a linear correlation with the dependent variables: target behavior 1, target behavior 2, and target behavior 3. The results, given in Tables 1, 2, and 3 (Appendix A), depict the independent belief variables that actually predict the target behavior. The 'R' given in the last column of the tables (Appendix A) represents a linear correlation between the target behavior and different belief sets. This correlation is statistically relevant at high level of significance i.e. p value of = 0.005.

Faculty's perception of whether it is important or not for administration to take responsibility for handling suspected acts of student plagiarism is a significant predictor for all three target behaviors (intentions). Target behavior1, intention to report future acts, is also predicted by faculty's belief regarding the importance of university to take lead in educating students about plagiarism and whether or not the administration would appropriately handle any reported acts by faculty. Faculty perception of a committee handling suspected acts of student plagiarism predicts target behavior 2 and 3: likelihood to address suspected plagiarism if procedures were in place; and likelihood to file reports to a committee, respectively.

Both the normative belief variables—whether or not administration is supportive of faculty reporting acts of plagiarism and how much do faculty care about administration's perceptions regarding what faculty should do about suspected acts of plagiarism—predict all the target behaviors. It suggests that faculty's perception of administrative support directly correlates with faculty's intention to report. Moreover, if faculty is concerned about what administration thinks what faculty should do, even then the intentions of faculty are influenced.

Two of the control beliefs—whether or not it is important to not involve the administration in handling acts of suspected plagiarism and whether or not it is important to report all acts of suspected plagiarism—predict all the target behaviors.

Frequency Analysis

Detailed frequency analysis provided in Table 4 (Appendix B) shows that most of the faculty (54.1percent) provide a clear affirmative response when it comes to their intention to report future suspected acts of plagiarism. Approximately, 32percent faculty 'somewhat agree' to the statement and approximately 9percent of faculty members do not intend to report at all. The numbers are similar (with 55.9percent affirmative) when it comes to the likelihood to address suspected acts of plagiarism in the presence of an established procedure to be followed. Approximately, 20percent are 'somewhat' likely and approximately 15percent are not likely with 9.2percent opting not to respond. As for an adjudicating committee of faculty, students, and administration, only 44percent of the faculty would be more likely to file reports to such committee and almost 26percent of the faculty would not be likely to do the same.

The frequency analysis for all the identified significant predictors of target behaviors is provided in Tables 5 through 9 (Appendix B).

Statistical Means

Statistical means for all the variables, independent and dependent, are provided in Table 10 (Appendix C). All the belief variables as well as intention variables have means of less than 2.85. A careful analysis of the response statements illustrates that a response of 3 also skews towards affirmative response to the statement. In other words, faculty responds positively to all the belief and intention variables. Their response to the behavioral perceptions of administration (such as importance of administration to take lead in educating students about plagiarism; to take responsibility for handling suspected plagiarism; administration would appropriately handle acts of plagiarism; there should be a committee, etc.) is positive with means ranging from 1.5 to 2.83. Similarly, their normative beliefs regarding administration are affirmative to the statements that administration is supportive of faculty reporting suspected plagiarism (mean of 2.3); and faculty considers what administration expects them to do regarding suspected plagiarism (mean of 2.69).

In terms of control beliefs, a positive response to the question stands out: that faculty considers it important not to involve administration (mean of 2.14) while handling suspected plagiarism. At the same time, faculty finds it important to report all acts of plagiarism (mean 2.17) and to follow university standards in dealing with plagiarism (mean of 1.66).

Weaknesses and Future Research

We recommend that future studies use a four point scale to avoid the middle point and force positive or negative responses. In addition, perhaps additional questions would provide administration with more specific ideas for implementation of an institutional policy on plagiarism.

The literature strongly suggests that educating students and faculty on the issue of plagiarism is a key to addressing it. Those institutions that have institutionalized student education initiatives need to be studied to evaluate the effectiveness.

While this study deals with perceptions and intentions, it does not measure actual faculty behavior nor does it identify actual administration actions. These results may not be representative of other institutions. A comparative study with an institution that has a strong plagiarism policy and an educational initiative may be fruitful.

Conclusions

Our goal of identifying whether or not faculty perceptions of the institution's handling of plagiarism influenced their intention to report plagiarism was accomplished. The faculty at this institution definitely are influenced by their perceptions. This in no way indicates whether faculty perceptions of administration actions are accurate.

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APPENDIX A

Table 1: Results of linear regression between target behavior 1 and each of the three sets of belief variables.

Table 1: Faculty Intentions Correlation Coefficient of different belief sets with target behavior 1	
Variables	R (correlation coefficient) with VAR 321
Behavioral Beliefs - How important is it for university administration to take lead in educating students about plagiarism? - How important is it for university to take responsibility for handling student acts of plagiarism? - University administration would appropriately handle suspected acts of student plagiarism reported by faculty.	0.933*
Normative Beliefs - University administration is very supportive of my reporting all suspected acts of student plagiarism. - Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of plagiarism?	0.902*
Control Beliefs - How important is it for me to handle the acts of student plagiarism without the involvement of university administration? - How important is it for me to report all acts of student plagiarism?	0.942*
*p = 0.000	

Table 2: Results of linear regression between target behavior 2 and each of the three set of belief variables.

Table 2: Faculty Intentions Correlation Coefficient of different belief sets with target behavior 2	
Variables	R (correlation coefficient) with VAR 328
Behavioral Beliefs - How important is it for university to take responsibility for handling student acts of plagiarism? - A committee of faculty, students, and administrators should handle adjudication of suspected acts of student plagiarism.	0.910*
Normative Beliefs - University administration is very supportive of my reporting all suspected acts of student plagiarism. - Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of plagiarism?	0.863*
Control Beliefs - How important is it for me to handle the acts of student plagiarism without the involvement of university administration? - How important is it for me to report all acts of student plagiarism?	0.887*
*p = 0.000	

Table 3: Results of linear regression between target behavior 3 and each of the three set of belief variables.

Table 3: Faculty Intentions Correlation Coefficient of different belief sets with target behavior 2	
Variables	R (correlation coefficient) with VAR 329
Behavioral Beliefs - How important is it for university to take responsibility for handling student acts of plagiarism? - A committee of faculty, students, and administrators should handle adjudication of suspected acts of student plagiarism.	0.952*
Normative Beliefs - University administration is very supportive of my reporting all suspected acts of student plagiarism. - Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of plagiarism?	0.853*
Control Beliefs - How important is it for me to handle the acts of student plagiarism without the involvement of university administration? - How important is it for me to report all acts of student plagiarism?	0.909*
*P=0.000	

APPENDIX B

Table 4: Frequency analysis of all the target behavior variables with response percentages.

Table 4: Faculty Intentions Target Outcome Behaviors – Response Percentages						
Target Behavior 1 I intend to report future suspected acts of student plagiarism to administration. <i>n=104</i>	Strongly agree 20.2	Agree 33.9	Somewhat agree 32.1	Disagree 6.4	Strongly disagree 2.8	N/A 4.6
Target Behavior 2 I would be more likely to address suspected acts of student plagiarism if there was an established procedure for faculty to follow. <i>n= 99</i>	Strongly agree 22.9	Agree 33.0	Somewhat agree 20.2	Disagree 10.1	Strongly disagree 4.6	N/A 9.2
Target Behavior 3 I would be more likely to file reports if a committee of faculty, students, and administrators adjudicated suspected acts of student plagiarism. <i>n= 104</i>	Strongly agree 16.5	Agree 27.5	Somewhat agree 22.9	Disagree 19.3	Strongly disagree 6.4	N/A 4.6

Table 5: Frequency analysis for behavioral belief variable that has been identified as significant predictor of all the target behaviors 1, 2, and 3.

Table 5: Faculty Intentions Behavioral Belief- Significant Predictor of VAR321, VAR 328 and VAR329 Target Outcome Behaviors – Response Percentages						
How important is it for university to take responsibility for handling student acts of plagiarism? <i>n= 108</i>	Extremely important 38.5	Important 43.1	Somewhat 14.7	Not important 2.8	Extremely un-important 0.0	N/A 0.9

Table 6: Frequency analysis for behavioral belief variables which have been identified to be significant predictors of target behavior 1.

Table 6: Faculty Intentions Behavioral Beliefs- Significant Predictor of VAR321 Target Behavior 1 – Response Percentages						
How important is it for university administration to take lead in educating students about plagiarism? <i>n= 109</i>	Extremely important 61.5	Important 30.3	Somewhat 5.5	Not important 2.8	Extremely un-important 0.0	N/A 0.0
University administration would appropriately handle suspected acts of student plagiarism reported by faculty. <i>n=103</i>	Extremely likely 10.1	Likely 24.8	Sometimes 37.6	Rarely 14.7	Extremely unlikely 7.3	N/A 5.5

Table 7: Frequency analysis for behavioral belief variable that has been identified as significant predictor of target behavior 2, and 3.

Table 7: Faculty Intentions Behavioral Belief- Significant Predictor of VAR 328 and VAR329 Target Outcome Behaviors – Response Percentages						
A committee of faculty, students, and administrators should handle adjudication of suspected acts of student plagiarism. <i>n= 107</i>	Strongly agree 11.0	Agree 28.4	Somewhat agree 34.9	Disagree 19.3	Strongly disagree 4.6	N/A 1.8

Table 8: Frequency analysis for normative belief variables which have been identified as significant predictors of all the target behaviors 1, 2, and 3.

Table 8: Faculty Intentions Normative Beliefs - Significant Predictors of VAR321, VAR 328, and VAR329 Target Outcome Behaviors – Response Percentages						
University administration is very supportive of my reporting all suspected acts of student plagiarism. <i>n</i> = 83	Definitely true 19.3	True 25.7	Somewhat true 22.9	False 5.5	Definitely false 2.8	N/A 23.9
Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of plagiarism? <i>n</i> = 108	Very much 23.9	Much 20.2	Somewhat 30.3	A little 11.9	Very little 12.8	N/A 0.9

Table 9: Frequency analysis for control belief variables which have been identified as significant predictors of all the target behaviors 1, 2, and 3.

Table 9: Faculty Intentions Control Beliefs - Significant Predictors of VAR321, VAR 328, and VAR329 Target Outcome Behaviors – Response Percentages						
How important is it for me to handle the acts of student plagiarism without the involvement of university administration? <i>n</i> = 104	Extremely important 22.9	Important 44.0	Somewhat 22.0	Not important 4.6	Extremely unimportant 1.8	N/A 4.6
How important is it for me to report all acts of student plagiarism? <i>n</i> = 109	Extremely important 29.4	Important 34.9	Somewhat 27.5	Not Important 6.4	Extremely unimportant 1.8	N/A 0.0

APPENDIX C

Table 10: Statistical mean and standard deviation of all the independent and dependent variables: behavioral beliefs, normative beliefs, control beliefs, and intentions (target behaviors).

Table 10: Faculty Beliefs And Intentions Mean and Standard Deviation of Identified Variables		
Variables	Mean*	Standard Deviation
Behavioral Beliefs		
How important is it for university administration to take lead in educating students about plagiarism?	1.50	0.73
How important is it for university to take responsibility for handling student acts of plagiarism?	1.81	0.79
University administration would appropriately handle suspected acts of student plagiarism reported by faculty.	2.83	1.07
A committee of faculty, students, and administrators should handle adjudication of suspected acts of student plagiarism.	2.78	1.04
The definition of plagiarism in the student handbook is adequate for students to understand expectations.	2.52	1.10
Normative Beliefs		
University administration is very supportive of my reporting all suspected acts of student plagiarism.	2.30	1.05
Generally, how much do you care about what university administration thinks regarding what you should do about suspected acts of student plagiarism?	2.69	1.32
Control Beliefs		
How important is it for me to handle the acts of student plagiarism without the involvement of university administration?	2.14	0.91
How important is it for me to report all acts of student plagiarism?	2.17	0.99
How important is it for me to follow university standards in dealing with student plagiarism?	1.66	0.78
Target Behavior 1		
I intend to report future suspected acts of student plagiarism to administration.	2.35	0.98
Target Behavior 2		
I would be more likely to address suspected acts of student plagiarism if there was an established procedure for faculty to follow.	2.34	1.13
Target Behavior 3		
I would be more likely to file reports if a committee of faculty, students, and administrators adjudicated suspected acts of student plagiarism.	2.72	1.21
*The statistical means range from 1 to 5 for all the variables. These are based on the scale of the most affirmative response to the statement and the most negative one. A response of 3 is neutral but skewed towards the positive side as expressed by response options in the survey.		

INTEGRATING ETHICAL DECISION MAKING IN MULTIPLE BUSINESS COURSES

Jan Welker, SUNY Institute of Technology
Lisa Berardino, SUNY Institute of Technology

ABSTRACT

Management literature and the popular press are implicating colleges, and especially business schools, in the preparation of decision makers in organizations who are perceived as rewarding executives for bad behavior. This paper responds to the challenge by promoting the integration of ethical principles in multiple courses within a college degree program to raise and expand a student's level of awareness of factors involved in ethical decision making.

Using a collection of concepts, this paper defines ethics as a code of behavior that restricts self interest for the greater long term good of society (Sharp, 2005); and the use of a moral base of value-related rules in which individuals as well as businesses make judgments about what is good and bad or right and wrong related to human conduct and relationships (Carlson et al., 2002), (Kashman, 2005) and (Fuqua and Newman, 2006).

This paper highlights five ethical decision models from literature to encourage professors who are reluctant to overtly address ethics in classroom or online courses and to equip those not schooled in philosophy or psychology with some basic principles to raise ethical awareness among students. In so doing, several assumptions are made to guide the approach about how to teach ethics: no professor should impose his/her values onto students; students exhibit different levels of personal and social development; students are not learning ethics from traditional sources such as parents, school and religious affiliations; and evidence of the importance of teaching ethics continues to mount, thus calling for curriculum action.

This article concludes by making twenty recommendations to professors including creation of course opportunities for student reflection on personal ethical experiences in which decisions harmed or benefited another; relating personal ethical behavior to organizational ethical behavior; and designing assignments based on elements of the highlighted models.

INTRODUCTION

The motivation for this paper is twofold. One is the personal frustration related to the ethical development of students experienced by these authors over a combined 20 years in business schools teaching undergraduate and graduate students in the classroom and online. The second is to respond to the public blame bestowed on business schools for scandals such as

Enron and Madoff. This paper is a call for any reluctant professor to integrate ethics into more than pure ethics courses. Decision making is the trigger for deciding the most appropriate place to do so with the recommendation that ethics be integral to any opportunity in which decisions are made at the personal or professional level for an individual, group, organization or society.

DEFINITIONS

Ethics is a “code of behavior that restricts self interest for the greater long term good of society” (Sharp, 2006, p. xv). Ethics and morality are interchangeable and overlap (Sucher, 2008). Both involve judgments about what is good and bad or right and wrong; both pertain to the study of human conduct, relationships and values (Fuqua & Newman, 2006). The code is an amalgamation of intellect, reasoning, experience, education, relationships, values and culture (Longest & Darr, 2008).

Ethical decision making is complex as a result of conflicts among individual differences, how people and businesses think about ethical decisions and how organizations manage resources and employees (Trevino & Youngblood, 1990). It is a process in which a moral base is used to determine whether a moral issue is right or wrong (Carlson et al., 2002).

A **moral issue** is present when a person’s willful actions may harm or benefit others (Jones, 1991).

A **moral base** is the set of rules that develop during moral development that function as a platform for distinguishing right from wrong (Carlson et al., 2002). This article summarizes how the development takes place. Sucher (2008) adds that the moral base is the foundation for moral reasoning related to accepted behavioral norms, boundaries and expectations.

Laws are “rules of conduct prescribed by society and enforced by public authority” (Longest and Darr, 2008, p.169). Additionally, criminal laws of right and wrong are the ethical code of conduct while civil law addresses relationships in society. Laws are formal (bylaws of an organization, charters, treaties and professional codes of conduct) and informal (custom, cultural norms, tradition). However, uncertainty clouds what is legal (formal) versus ethical. This introduces consequences that influence a decision to act. The opposite principle is the Golden Rule, which focuses on duty rather than consequences.

ETHICS IN BUSINESS

Business ethics comprises company attitude and conduct toward stakeholders including employees, customers and community served (Kashman, 2005). Since the 2001 Enron scandal,

colleges and especially business schools have been undergoing soul-searching in terms of curriculum reform related to ethics (DiMeglio, 2009). In response, there was a 500% increase in the number of stand-alone ethics courses over the period 1999 -2007 (BizEd, 2007).

The apparent deterioration of ethical decision making reaches far beyond whether business school students are ethically challenged. Ghoshal (2005) asserts that the bottom line orientation to business has shaped leaders, policy makers and college professors. Additionally, businesses and business schools may be fostering the decline in moral responsibility by casting shareholders as the supreme stakeholder to the detriment of all other stakeholders.

When corporate compensation packages offer people vast wealth for behaving badly, it is tough for an ethical organization to compete. Therefore, Schonsheck (2009) calls for challenging anyone in authority to consider how such unregulated schemes condone the various character flaws that lead to the scandals in the news.

Bogle (2009) adds that dependence on the market place and competition to create prosperity has allowed self-interest to rule and these unchecked market forces have overwhelmed traditional standards of professional conduct developed over time. The result is a shift from moral absolutism to moral relativism. She further notes society has moved from 'there are some things that one simply does not do' to 'if everyone else is doing it, I can too'. Therefore, the old notion of trusting and being trusted, once accepted standard of business conduct, seems to be a quaint relic of an era long gone.

According to Fuqua & Newman (2006, p.206, 207) "lack of attention to basic requirements for moral development of human systems has contributed to intolerable levels and forms of systemic mismanagement". Evidence abounds in "increased violence and aggression, ignoring performance standards and greed at all levels of management". There is a "paradoxical notion that ethics belongs to the private life and that ethics and business do not or cannot mix". While the evidence points to an increased need to raise ethical awareness, the paradox seems to dampen any motivation to do so. "Humans are moral systems; organizations are collections of humans in functional systems in which rules, norms and expectations exist for both social and private behaviors. Therefore, organizations are human systems with moral structures built directly into their framework." This paradox is at the heart of the reason for this article.

Trevino & Youngblood (1990) observe that ethical decisions are influenced by moral development, which acts as the basis for moral reasoning leading to moral decisions. They characterize individuals as 'bad apples' and organizations as 'bad barrels'. Unethical 'barrels' are attributed to competition, results orientated management, poor role models, reward and punishment systems and the presence or absence of guiding policies and procedures. Bad 'apples' are likewise attributed to peer pressure, observing what happens to others in ethical decision making, the role of individual differences in perceptions and the level of control over events in one's life.

A good example of suspect ethical decisions is described by Szlek (2009), who posits that the Food and Drug Administration (FDA) is broken due to a history of "adopting practices, often

for financial reasons, which all but ensure it will fall short of protecting us from harmful drugs". She further asserts that the "almighty dollar has corrupted medical judgment" to the point that some employees committed to integrity remain silent out of fear of retaliation. She calls for accountability and transparency in the FDA. Kashman (2005, p.37) agrees that the lack of an ethical decision making process can lead to "arbitrary and inconsistent decisions" and that a transparent decision making process is necessary to "build trust" and "sustain results" in times of struggle, crises and conflict.

According to Schonsheck (2009), the mission statement of either a business or a business school is very telling about the ethical behavior that is desired. Fierce competition is a "broadly construed corporate culture" (p.49). Additionally, the mission statement expresses how moral integrity is valued and behavior is validated. No mission statement promotes dishonesty, greed or deception. However, leaders sometimes behave as if those were their guiding principles. The impact of the stated mission versus the shady guiding principles is reflected in how employees are rewarded with raises, allocated office space and recognized by the company. For purposes of this article, the same can also apply to the methods in which students are held to a business school's code of conduct and the consistency with which students are punished for cheating and plagiarism across departments, courses and professors.

ETHICS AMONG STUDENTS

Community leaders with whom the authors of this article interact consistently rate ethical values as high as interpersonal skills and higher than computer skills. Yet, colleagues of these authors note that ethics is not high on the list of interests among business students in their traditional ethics and organizational behavior courses. These same colleagues observe that students assume they have learned ethics in previous courses and often overestimate their knowledge of subjects, including ethics. They further observe the greater student problem is a distorted view of business management based on movies and news stories in which business is cast as a dog-eat-dog world in which concepts of honesty and integrity have no place.

When compared to other professions and occupations, literature on academic ethics is relatively small due to the assumption professors will naturally be ethical; the assumption that private ethical issues are not ranked as highly as medical and business ethics; and the concern that more transparent ethical discussions will interfere with academic freedom of faculty (Rocheleau & Speck, 2007). Therefore, these pressures may be inhibiting professors not schooled in philosophy or psychology from overtly addressing ethics outside of pure ethics courses.

Ethical issues are ambiguous and complex, not black and white. Education of students occurs through diverse modalities (classroom, residence halls, community service projects, academic advising, and athletic fields) all of which convey what the institution considers important and creates a potential for miscommunication of values (Eberhardt, 2006).

Bartlett (2009) describes how college students from all disciplines are tapping into essay mills located all over the world to fulfill writing assignments. Students view the mills as just one more electronic research resource. The managers of such mills pacify their consciences by saying they are simply providing templates from which students can extract ideas rather than actual papers to be submitted for grading. Enforcing any laws against such mills is difficult with the writers living abroad. Bartlett asserts that students who use these services know exactly what they are doing and intend to cheat from the beginning of the venture and that one good way to find out is to discuss papers with the students to ascertain that they did not read the material much less write the paper.

A 2008 telephone survey of 750 twelve to seventeen year olds revealed that over half of respondents said their parents are their role models followed by 13% friends and 6% teachers and coaches. Eighty percent of these teens stated they believe they are ethically prepared to make moral business decisions; however, nearly 40% believe they need to ‘break the rules’ to be successful in life. For example, 49% said lying to parents and guardians is acceptable and 61% said they have lied to either of those in the past year (Junior Achievement Worldwide, 2009). This raises concerns about the unethical behaviors in which these teens will be engaged when they enter the workforce and the quality of decisions they will make. It also emphasizes the challenges for schools and businesses in developing these future leaders. Bennett-Woods (2005) characterizes organizational leaders as moral agents. These teens are future moral agents in training.

The media is calling for business schools to place a greater emphasis on ethics in the curriculum (Schonsheck, 2009, p. 48). He notes that “it would be wonderful if professors were so powerful as to prevent corruption in business. However, there is a limit to what professors can and cannot do”. The media seem to be calling for schools to both instill and reform student values. Schonsheck adds that “individual actions arise from one’s own values and students arrive on the first day of class with a well-entrenched set of values instilled long ago by parents, siblings, teachers and religious figures.” Therefore, professors can only equip students with an expanded awareness of how and why ethical decisions are made.

MODELS FOR DESIGNING COURSE WORK ON ETHICAL DECISION MAKING

Five models spanning 25 years of research on ethical decision making can establish a basis for professors without training in philosophy or psychology and who may be reluctant to venture into course content related to ethics. The models were selected because they have greatly assisted the authors of this article in understanding student issues with ethics. Two major themes resonate across the models: the sequence of choices made in the ethical decision process and the factors that influence those choices.

Six Stages of Cognitive Moral Development

Kohlberg et al. (1984) approaches the development of a moral base from a psychology viewpoint and asserts that moral development occurs along a hierarchical continuum on how reasoning relates to judgment and the resulting behavior.

Stage One: In stage one, the decision to behave a certain way is based on punishments and rewards. An example is to doing what parents, professors or bosses require.

Stage Two: This next stage is based on the idea that ‘good’ behavior is in one’s own self-interest. In other words, ‘What is in it for me?’ Notice that this theme permeates the earlier sections on the current state of business and student ethics.

Stage Three: A ‘good boy/girl’ attitude is exercised in which the individual tries to gain approval of others through appropriate behavior. In other words, one strives to please people or be viewed as good.

Stage Four: An individual recognizes the merits of abiding by the law and acting on obligations of duty to maintain order.

Stage Five: Respect for the rights and responsibilities of self and others develops as one recognizes a ‘social contract’ exists with mutual social relations and concern with the welfare of others.

Stage Six: Principles higher than the authority of law are honored in stage six. Conscience is based on universal principles of what is bad or wrong even if legal.

Trevino & Youngblood (1990, p. 379) note that this model demonstrates that a person’s “moral judgment grows less and less dependent on outside influences with each successive stage and moves from self-centered conception of what is right to a broader understanding of the importance of social contracts and principles of justice and rights”. Examples include cheating, resisting authority figures, helping behaviors and principle-based decision making.

Sucher (2008, p. 24) observes that this model demonstrates that “moral awareness develops in both children and adults and progresses from externalized right and wrong enforced by obedience and punishment to an internalized appreciation for moral principles with which individuals constantly interact”. She adds that there are issues with this model due to the degree of severity of the moral challenge embedded in each ethical situation, mindsets of participants

and the complexity of behavior options, which require moral reasoning about what one believes to be right. Sucher provides these issue examples.

In a 'right versus wrong situation' the ethical imperative is unambiguous, one's critically ill spouse needs a lifesaving medication and stealing the unaffordable medicine is wrong. However, in a 'right versus right situation' a genuine dilemma exists when each side of an argument is rooted in a basic core value such as telling the truth versus maintaining loyalty, which pits honesty against loyalty (p.25).

Four Factors of Influence in Ethical Decision Making

Morrison (2006, p.3, 267) follows the Kohlberg et al. model of moral development but emphasizes how it is exhibited in daily personal and professional life. The context is ethical decision making in health care administration systems.

The first influencer is one's personal **code of ethics and moral integrity**. "Ethics has to do with the question of how one 'ought' to live and act. However, what one 'ought' to do is influenced by what one 'can' do" (p. 159). This comes from the attitude that if a law is not being broken, a person is being ethical. Ultimately, actions of an individual exhibit one's ethics and those actions impact others.

Organization or system ethics represent **internal factors** in moral behavior. Ethics is not just theory or task but something to be practiced daily. For example, the mission of an organization is exhibited in the daily behaviors of the collective. The behaviors of individuals impact the image of the organization and spill into the community related to such moral attributes as fairness and fiscal responsibility.

External influences represent the professional, geographic or social market in which an individual and organization functions. An example is codes of conduct outlined in professional health care organizations. Different cultures have different values, assumptions, beliefs, motives, attitudes, language, stories and experiences that form identity and motivate behaviors. Therefore, ethics is a cultural issue due to violations increasing in organizations within a market such as lying and falsifying records.

Founding principles comprise the final factor serving as a backdrop for how individuals and organizations make ethical decisions. Examples include ethics theories typically learned in traditional stand alone ethics courses such as Kant's 'what is right for me is right for all', Rawl's 'protecting the least well off' and Mill's 'greatest good for the greatest number' (p.249). Longest and Darr (2008), also writing about ethical decisions in health care systems, highlight the strong influence of the presence or absence of respect, justice, fairness, and do no harm.

Morrison emphasizes moral integrity as key to establishing and maintaining trust that allows people to live successfully with one another by realizing that all are ‘co-creators’ of the world in which each functions (p.271). Ethical decisions are “not made in a personal vacuum and values initially obtained from friends and family are influenced by education, professional socialization and experiences” (p. 196). She advocates closer examination of the inner self, core values and personal bottom line; learning from failures rather than repeating them; formulating a personal mission statement and adhering to it fervently. A warning is given to sustain moral integrity and be aware of ‘moral derailment’, the dark side of leaders and followers in such areas as how power, greed and money are used to persuade decisions.

Four Stages of Ethical Decision Making

Jones (1991) isolates the sequence of ethical decision making as four stages:

Stage One: The **moral issue** (dilemma, situation, challenge) is recognized with the awareness that a decision to act will affect others and that a choice is involved. If a person fails to recognize a moral issue, his ethical decision making is based on another non-ethics factor such as economics. Aupperle (2008, p.2) notes that “recognition and awareness of moral issues are partly related to selective perception as well as one’s own physiological gestalt such as social culture, family, friends, school, religion and work environment”.

Stage Two: Based on one’s evaluation of the moral issue, a **moral judgment** on optional behavior choices is made. Moral judgments involve judgments about what a person should do in certain situations. Judgment about what constitutes right or wrong behavior relies on one’s moral base.

Stage Three: Moral judgment leads to a **moral intent** to act or not act in which one resolves to place moral concerns ahead of other concerns. Moral intent is a result of balancing the factors of the moral issues (stage one) with other factors leading to whether or not to engage in a moral behavior. It is not simply judging what is morally correct but it is making a choice to act or not act on the judgment of stage two. For example, a person observes the behavior of another that could potentially cause harm but never considers blowing the whistle; he knows what is right but intends to do nothing meaningful about it.

Stage Four: Once the intent is determined, the decision maker follows through and engages in the selected **moral behavior**.

Jones focuses on moral intensity as being the level to which the characteristics of the moral issue matter (the degree of badness of an act or failure to act) resulting in a moral judgment. The higher the moral intensity, the greater the impact on the decision process (p. 391).

According to Jones (1991, p. 374-378), there are six characteristics of a moral issue that are positively related to the degree of moral intensity:

Magnitude of consequences defined as the sum of harms (or benefits) to victims (or beneficiaries) of the moral act in question. For example, an act that causes 1000 people to suffer a particular injury versus an act that causes 10 people to suffer the same injury.

Social consensus defined as the degree of social agreement that a proposed act is evil (or good). For example, the evil involved in bribing a customs official in Texas has greater social consensus than that of bribing a customs official in Mexico.

Probability of effect defined as the joint function of the probability the act in question will actually take place and the act will actually cause the harm (or benefit) predicted. For example, selling a gun to a known armed robber has greater probability of harm than selling a gun to a law-abiding citizen.

Temporal immediacy defined as the length of time between the act and the onset of consequences of the act; a shorter length of time implies greater immediacy. For example, reducing the retirement benefits of current retirees has greater temporal immediacy than reducing retirement benefits of employees who are currently between 40-50 years of age.

Proximity defined as social, cultural, psychological or physical 'nearness' the person making the moral decision has for victims. For example, layoffs in a person's work unit have greater moral proximity than layoffs in a remote plant.

Concentration of effect, the number of people affected by a moral decision compared to the magnitude of the affect.

McDonald & Norsworthy (2000) note that people respond differently to moral issues related to the characteristics of the issue itself. A classic example is a small versus large theft of any kind related to the number of people harmed. In other words, ethical decision making is issue-contingent and the embedded characteristics noted above by Jones affect all stages of the ethical decision process. Like Jones, McDonald & Norsworthy (p. 58) associate issue-contingency with the "concepts of retribution and proportionality in criminal law in which all crimes are not treated equally by the legal system. Court rulings tend to be more harsh for the most severe crimes".

Therefore, issue-contingent ethical decisions have special implications for education in business schools. "Business majors tend to align their ethical judgments and intentions toward profit maximizing behavior and may discount information about harm to non-economic

stakeholders.” Raising ethical awareness of students beyond a bottom line orientation emphasizes obligations to more than direct shareholders who will be harmed or benefited (p. 57).

Perceived Importance of an Ethical Issue (PIE)

While Robin et al. (1996) recognize that the Jones’ moral intensity construct influences every stage of the ethical decision making process and focuses on the characteristics of the issue, they extend the moral intensity construct by emphasizing the powerful role of an individual’s perception of the characteristics of the moral issue. They propose that the individual state construct of a person or organization in the form of Perceived Importance of an Ethical Issue (PIE) is more powerful than the moral intensity construct of the Jones model. PIE is defined as “the perceived personal relevance or importance of an ethical issue to an individual, similar to the concept of ‘involvement’ in consumer behavior with involvement being the perceived importance of the consumer issue to an individual. It is personal and temporal in character” (p. 17).

Stage One: Definition of the **moral issue** accommodates beliefs and needs of either the individual in a personal decision or a group, organization or society in a public decision. The perception of the issue also takes into account special characteristics of the situation and ongoing pressure to act or not act. It recognizes that actual issue characteristics are likely to be perceived differently by different individuals or by the same individual over time based on ethical sensitivity of an individual; the organizational and individual values that are activated; the opportunity for ethical and unethical behavior; and relations with superiors, peers and subordinates. In essence, PIE addresses the variance of both the relevance and importance of the issue across individuals and across time for the same individuals.

Stage Two: The embedded moral issue elements influence **moral judgment**.

Stage Three: The intent to act or not act comprises stage three, **moral intent**.

Stage Four: Execution of the selected moral behavior occurs in stage four.

Research conducted by Robins et al. positions PIE as a better predictor of ethical decision making than moral intensity of the Jones model. They believe that an "individual state construct is closer to both moral intention and moral behavior" (p.17).

Four Stages of Ethical Decision Schema

Haines et al. (2008) expand both the previous two models using business decision making as the context. They assert that moral intensity, developed by Jones, mediates the whole process

and PIE, developed by Robin et al., is tempered by an individual's sense of responsibility to act or not act.

Stage One: From the Jones model, higher **moral intensity** of a moral issue calls for more ethical behaviors and a greater impact on the decision process. In both of the previous two models, moral intensity varies significantly across issues. Both moral intensity developed by Jones and PIE developed by Robin et al. influence the definition of the issue. However, PIE focuses on the decision maker rather than the moral issue; asserts that individuals view issues differently and expects the same individual to view issues differently at different times and under different circumstances.

Stage Two: From Robins et al., higher PIE will judge ethical issues immoral in stage two, **moral judgment**, and a person is less likely to engage in immoral behavior. Haines et al. introduces a new concept of moral obligation, which relates to a new type of personal internal state of a decision maker. It is the "extent to which an individual feels a sense of responsibility to act (or not act) morally and relies on a well established relationship between attitude and intention to act". Moral obligation is a "sub process between moral judgment and moral intent and occurs after the individual makes the judgment but before the actual intent is established" (p.391). Therefore, moral obligation is inserted between judgment, stage two, and intent to act, stage three.

Stage Three: Establishment of a moral intent whether or not to act is mediated by the Robin et al. concept of **moral involvement**. Haines et al. add that moral involvement is a social psychology concept that "explains consumer decision making behavior; as the consumer perception of a product's importance increases, involvement in the decision increases" (p.388). The personal intent state of an individual based on the perceptions of the moral issue characteristics (PIE from Robins et al.) drives the decision process, not the issue characteristics themselves as is espoused in the Jones model.

Stage Four: The decision maker engages in the **moral behavior**.

The major element introduced by Haines et al. is the concept of moral obligation to explain variance in moral intent. Recalling the private versus public paradox described earlier, moral obligation is a personal internal state and the area in which individual ethics (the private personal side) impacts organizational and social decisions (public side). This sequential nature of ethical decision making implies that the way a moral issue is defined, perceived and modified by an internal obligation will determine if a decision is based on moral considerations versus other non ethical factors such as economics. Kashman (2005) provides evidence in health care in

which he finds that influencing decision factors are 50% legal, 30% financial, and 20% political. Notice no mention of ethics as a basis for decision making by Kashman.

Haines et al. note the implications of their model for managers. For purposes of this paper, they are summarized below and can just as easily apply to professors of business school students as managers of employees. Intentions lead to behavior and initiatives are needed to increase employee *and student* (emphasis ours) intentions to act morally. Manager *and professor* actions should increase the importance attached to moral issues and raise employee *and student* awareness through ethical training. This includes identifying aspects of the situation and raising the level of ethical sensitivity such as emphasizing codes of conduct, honest communication methods and enforced rewards and punishment structure to awaken a sense of responsibility and awareness of one's relationships with the world beyond one's self.

RECOMMENDATIONS

The twenty recommendations provided below for professors are based on assumptions drawn from research for this paper. First, the focus of the recommendations is the moral base of students and not the moral base of professors. Second, raising ethical awareness among students should not be interpreted as passing judgment on the ethical decisions actually made by students. Third, students are not learning ethics from traditional sources and come to class with different levels of personal and social development. Fourth, even if ethical behavior is innate, natural morality can be altered by attributing blame, distorting the circumstances, displacing responsibility and rationalization. Last, the major problem in teaching ethics is the fact the content involves personal values and behaviors rather than the more familiar skills and knowledge rooted in lectures and books.

The objectives of the recommendations include helping students discover and expand awareness of personal and environmental factors involved in ethical decision making; define and reflect on the personal and professional foundation of ethical values from which they are currently operating compared to other factors to consider in reframing their foundation; come to terms with a definition of their own moral code and how it can be translated into action, and move student thinking from what one 'can' do to aligning what one 'ought' to do with what one 'will' do.

Use decision making as the key element to locate the best place to integrate ethics into learning exercises (Bennett-woods, 2005). Basically, use ethics as the viewpoint for examining decision making in any course work (DiMeglio, 2009).

Bennett-Woods (2005, p. 160, 161) also suggests using ethics as a platform "to stimulate students to reflect deeply on personal and professional moral and ethical foundations, develop confidence in their ability to analyze and defend positions, grasp content in ethical theories and principles and perform formal analysis resulting in the decision making process". She further suggests using the basic eight step management problem solving model (gather information, state

the problem, identify the ethical issue, select ethical principles to analyze the issue, conduct the analysis and prepare justification or make counterarguments, determine competitive behavioral options, evaluate the options and select the best action/behavior).

Porter and Schick (2003) use Bloom's Taxonomy to suggest how ethics can be addressed in coursework. First, ethics should be integrated into course planning. Second, educators must enable both cognitive (knowledge, application, synthesis) and affective (awareness, conceptualizing and valuing precepts) competencies for graduates to be successful in the field. Third, educators should distinguish among ethical domains of decision making as personal, professional, clinical, organizational and social.

Raise ethics to the level of value placed on interpersonal communication and computer skills (Tanyel et al., 1999). Encourage students to reflect on their own values and understand how actions relate to values. According to Schonsheck (2009), value clarification helps students realize that they acquire values uncritically by passively absorbing beliefs. Assist students in comparing such unexamined values using the models outlined above.

Just as Fuqua & Newman (2006) make the following recommendation for businesses, the content is applicable to business schools, professors and students. Fully integrate moral issues into the usual organizational structure; emphasize that moral development applies to individuals as well as organizations and moral issues are fundamental to human organizational structures. Emphasize that it is not possible to separate an individual's moral character from the person as a whole. Stating one set of values and living another is a contradiction well worth examination.

Another recommendation by Fuqua & Newman (2006) speaks to the heart of the title of this article. They suggest facilitating meaningful moral discourse as a routine process. Examples include discussing the parties harmed or benefited by a decision; the level of honesty in communications; the difference between the desired code of conduct versus the code exhibited in actual behavior; and the influencing formal/informal and spoken/unspoken factors. Just having the discussion is in itself a learning experience.

While one may debate Detert et al. (2008) who assert that ethical decisions cannot be validated by tests in the same manner as skills and knowledge from textbooks and lectures, the authors of this article have learned that ethics can be validated in essays, discussions and case analysis compared to the near impossibility to do so in multiple choice, true-false and fill in the blank assignments. Use real events and stories from the press, literature and student's own experience in the home, work or school to create opportunities to reflect on personal ethical events that harmed or benefited an individual, group, organization or society. Integrate ethical decision making in critical thinking, case analysis, group discussions, interviews with people who have experienced ethical dilemmas, community service projects and writing assignments. For example, Sharp (2006) recommends the case method to identify the moral issue, consider alternatives available and the criteria and consequences for evaluating the alternative behaviors, exchange ideas and reach consensus. The byproducts are skills and confidence in the safety of a course setting related to confrontation, problem analysis and making difficult moral decisions.

Link personal ethical behavior to organizational ethical behavior. For example, expectations for leaders and professors have increased due to public and catastrophic moral failures of recent years. Teach students to observe what is being emphasized and the message being conveyed (Fuqua & Newman, 2006). An example is the questionable behavior of Atlanta teachers modifying student work when teacher success is tied to student achievement scores (The Washington Post, July 24, 2011).

Include ethical decision making in learning assessment in meeting business school accreditation standards to demonstrate that integrity and social responsibility matter as much as profitability, survival and personal or organizational advancement.

Use the Kohlberg et al. model to demonstrate the moral development process and its impact on judgment and to move students from stage two (What is in it for me?) to the more advanced stages.

Use the Morrison model to apply ethics to daily decisions in areas such as data integrity, honest communications, careful use of resources and use of management tools to influence others, measure performance and take corrective actions in both personal and professional life.

Use the Jones model to link moral issues to moral behavior and the concept of moral intensity. Focus on the characteristics of the moral issue to examine how they influence what one 'can' do versus 'ought' to do.

Use the Robin et al. model to examine how the perceived importance of the characteristics of an ethical issue (PIE) influences decision behavior that differs across individuals and differs for the same individual across time.

Use the Haines et al. model to examine the sub process of the personal internal state of the decision maker related to moral obligation that resides between moral judgment and moral intent to act.

Coordinate use of ethical decision making material with other faculty so that courses later in a program of study build upon rather than simply repeat ethical principles or exercises already addressed elsewhere.

Be more direct in teaching transparency and what it means to be an honest business leader (DiMegilo, 2009). For example, do not make ethics courses elective that allows achievement of a degree without pondering right and wrong in a systematic way. In other words, do not make moral integrity optional.

Ethical situations are gray and complex with no obvious solutions that enable everyone to win (McDonald & Norsworthy, 2000). Fandray (2005, p.82) advocates telling students "if they think of the world as black and white, they should stay as far away from black as one can get. The difficulty is that a person is tempted to nose himself into the gray to see how far away from white he can get. That is the pressure that comes with opportunity, greed and money". They further encourage rewarding people who understand the difference between right and wrong and advocate that every organization should have a code of ethics that not only tells a person how to

behave in specific situations but gives him clear ideas of how the organization (or school) expects them to deal with ethical dilemmas that can't be anticipated.

Do not be alarmed in an attempt to raise ethical awareness if students assume a victim attitude or assign blame to support past ethical decisions. Establish and sustain emphasis on decisions they have made and not decisions others have made that harmed or benefited them.

Expect to encounter the private-public paradox in which students will assert that moral integrity is a private matter (Fuqua & Newman, 2006). The counter is moral systems in which one lives, works and plays are both private (personal) and public (groups, organizations and society as a whole).

Use the reference list at the end of this article to glean content for lectures and exercises or construct grading rubrics for assignments.

CONCLUSION

Fandray (2005, p.82) notes that decision making is more than choosing between right and wrong, that values matter and intentions to act vary depending on the state of health of one's conscience. "Every time something is gray, people are going to game it. America is a business civilization; if it's going to be a successful one, moral sensitivity and moral integrity fall on the business leadership" and by inference in this article to professors in business schools.

When advocating for moral integrity, Morrison (2006, p.291) notes that "cheating, dishonesty and other moral flaws are sometimes mistaken as good actions when they get you ahead of the next person". Therefore, she urges the avoidance of ethical hypocrisy defined as the "dissonance between words and actions, which undermines trust" and concludes there is more to being an ethical business professional than just doing a job and tracking financial reports.

Lessons learned in this research include the fact that any course in which decision making occurs is an opportunity to introduce ethical awareness; decision making is a moral behavior and moral behavior is preceded by moral intention to act or not act. Moral intention is a result of moral judgment and moral judgment is impacted by personal, professional and situational circumstances. However, circumstances alone do not dictate behavior. It is one's perception of the circumstances merged with the values in one's own ethical core that influences a chosen behavior.

While students may continue, in the near future, to practice self interest by swapping papers, cheating on tests, blaming a professor for a low grade when the work was not completed or lying, a more broadly distributed array of exercises on ethical decision making may eventually alter the current issues with moral integrity outlined in this article.

Dosick (1993) as cited by Morrison (2006, p.316) provides a sound basis for developing a foundation for moral development (as in the Kohlberg et al. model); for ethical daily living both personally and professionally (as in the Morrison model); a higher level of moral intensity (as in the Jones model); better understanding of the power of perception (as in the Robin et al. model);

and realization that a moral obligation resides between moral judging and moral intentions to act (as in the Haines et al. model).

Everywhere, all the
Time, be
Honest; act with
Integrity; have
Compassion. For what is at
Stake is your reputation, your self-esteem, your inner peace.

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TESTING THE EFFECTIVENESS OF THE UNIVERSITY HONOR CODE

Jason J. Ely, Coastal Carolina University
Linda Henderson, Coastal Carolina University
Yoav Wachsman, Coastal Carolina University

ABSTRACT

Many universities are using an Honor Code to deter students from cheating. This paper reports an experiment that examines the effectiveness of using an Honor Code by giving university students an accounting quiz in an unsupervised environment and comparing the average scores among three groups of students: those who did not sign an Honor Code, those who signed an Honor Code, and those who wrote a statement why academic integrity is important. Students who signed an Honor Code had statistically significant lower scores, indicating that they cheated less. However, writing why integrity is important did not significantly affect the students' test scores.

INTRODUCTION

University students often cheat. Depending on circumstances, the rate of cheating among college students varies between 13% and 95% (McCabe and Trevino, 1993). This paper examines the effect of including an Honor Code in an accounting quiz on students' inclination to cheat. It contributes to the literature by relying on test scores rather than surveys or other methodologies that can influence students' behavior; in addition, it focuses on the immediate effect of signing an Honor Code on students' quiz scores. We find that the mere inclusion of an Honor Code significantly reduces the instances of cheating, but having students write why academic integrity is important has no significant effect on their behavior.

Previous research shows that students cheat for a variety of reasons. In an early study, Drake (1941) proposes that cheating becomes an "expedient way to achieve some desired goal and, at the same time, to avoid some of the unpleasant punitive consequences that attend failure." Using a controlled experiment, he shows that weaker students and members of a fraternity are more likely to cheat. In general, students with a low grade point average (GPA) are more likely to cheat than students with a high GPA and younger students are more likely to cheat than older students (Kerkvliet and Sigmund, 1999).

Though most students consider cheating to be wrong, many of them rationalize their behavior by blaming their teacher, workload, or other obstacles to justify their unethical behavior

(Murdock and Stephens, 2007). O'Rourke et al (2010) conclude that lax attitudes about cheating, direct knowledge of cheating by others, and neutralizing attitudes all increase the probability of cheating. Neutralizing attitudes are the beliefs that cheating does not matter because everyone does it or because the material is not important. Miller, Shoptaugh, and Wooldridge (2011) find that students who said they would not cheat out of fear of getting caught are more likely to cheat than students who said that they would not cheat because of personal character or the value that they place on learning.

While some studies conclude that males are more likely to cheat (Marsden, Carroll, and Neill, 2005; and Hendershott, Drinan, and Cross, 1999), other studies assert that females cheat more often than males (Graham, etc., 1994). Marsden, Carroll, and Neill (2005) find that students who are younger (under 25) and attend school full-time have a higher grade orientation while students who are older and/or study science have a higher learning orientation. Thus, younger, full-time students may be more concerned about their grades and are therefore more likely to cheat while older students and science majors are generally more concerned about what they learning and are therefore less likely to cheat.

Frequency of cheating varies by discipline. Business students are more inclined to cheat than the general student population. Studies show that business students cheat on average 18% more in undergraduate school and 9% more in graduate school (Bowers, 1964; McCabe and Trevino, 1993; McCabe, 1997; and McCabe, Butterfield, and Trevino, 2006). Frank, Gilovich, and Regan (1993) study the effects of an introductory economics course on business students and find that over the course of a semester students become more willing to engage in unethical behavior in order to achieve a higher degree of self-interested results. Business schools are sometimes accused of teaching bottom-line principles with the sole interest of profit (Ghoshal, 2005). Although Ghoshal's assertion is often disputed, it merits attention since losses from occupational dishonesty and fraud are estimated to approach \$1 trillion annually (ACFE, 2010).

McCabe, Trevino, and Butterfield (1996) study the effects of a university Honor Code on ethics in the workplace. They find that students who attend a university that has an established Honor Code become more honest employees. Universities have the opportunity to help produce more honest citizens by instituting an Honor Code since they strongly influence students' moral foundation (Sanford, 1964; and Tomlinson, 1974).

Campbell (1935) was one of the first researchers to investigate the factors that mitigate cheating in a classroom setting. He finds that students report committing or witnessing fewer incidents of cheating when their university has an Honor Code regardless of whether they attend a university with a proctor system, where they are monitored during exams, or a university with an honor system, where they are not monitored during exams.

Bowers (1964) conducts a similar study and finds that the greatest determinant of whether or not a student cheats is his or her perception of peer cheating (i.e., if their peers are perceived to have cheated then they will probably also cheat). Consequently, most students report peer pressure as the greatest influence over their personal cheating habits. Megehee and

Spake (2008) find that perception of classmates' cheating increases and severity of punishment decreases cheating, but there is no significant correlation between perceived probability of getting caught and cheating.

Canning (1956) conducted a six-year investigation into the effectiveness of institutionalizing an Honor Code at Brigham Young University from 1948, when the code was first introduced, to 1954. He had students take an exam and, unbeknownst to the students, had the instructor make a copy of the exam, grade the copy, and record the score. At the beginning of the next class period, the instructor explained that, due to tight scheduling, the exams had not been graded and subsequently passed back the original exams and the answer key for the students to grade during class. The scores from the student-graded exam were compared to the scores from the teacher-graded exam. He found that cheating decreased from 81% to 30% during the six-year period after the Honor Code was introduced.

Gardner (1988) attempted to replicate Canning's (1956) experiment, but came to a different conclusion. Gardner (1988) is one of the few studies that claim that Honor Codes are ineffective. However, Gardner's research did not have a control group and the subjects were aware that they were participating in a research experiment. McCabe and Trevino (1993, 1995), McCabe, Trevino, and Butterfield (1999) and Kerkvliet (1999) all conclude that instituting an Honor Code reduces the incidence of cheating.

This study adds to the existing literature in two ways. First, our research relies on an experiment that is unlikely to have an experimenter's bias. Specifically, we allow the participants to take a quiz at home and only measure cheating indirectly by looking at their quiz scores. Thus, participants in our experiment knew that there is no chance that they would get caught if they cheated and, therefore, their behavior was not influenced by the fear of getting caught. Secondly, unlike previous studies, we focus on the immediate effect of reading and signing an Honor Code as opposed to the effect of instituting an Honor Code. Our research answers a simple question – will including an Honor Code in assessments reduce the instances of cheating?

METHODOLOGY

The experiment was conducted in the E. Craig Wall Sr. College of Business Administration at Coastal Carolina University in Conway, South Carolina. We utilized over two hundred and fifty students who were attending a standardized introductory accounting course. Most of the students were sophomores or juniors and roughly 42% were females. The average age of the participants was 20. Participation was voluntary and the participation rate was 97.6%.

Ely, posing as the graduate assistant, offered students the opportunity to complete a quiz made of ten multiple-choice questions that were based on material that was covered in class. The quiz was designed to be very challenging, but the answers to the quiz were available in the textbook. Ely stated that the purpose of the quiz was to evaluate the students' retention of the course material.

The questions were identical on all the quizzes; however, we utilized three versions of the quiz (experimental treatments): 1. No Code (NC) only included the quiz's instructions, questions, and space for answers; 2. Code Given (CG) also included Coastal Carolina University's newly approved Honor Code and a space for students to sign the code; 3. Write Statement (WS) omitted the Honor Code and instead included a short question that asked students to "Explain why academic integrity is important and why cheating is wrong." Students in the NC, CG, and WS treatments were asked to complete the quiz at home where they could easily cheat by finding the answers in the textbook, on the Internet, or elsewhere. Additionally, we included a fourth Proctored Exam (PE) treatment in which the students took the quiz without an Honor Code in class and were carefully monitored. Students in the PE treatment did not have a time limit.

The quizzes were given to undergraduate business students in ten introductory accounting courses. In three of these courses the students were proctored while taking the quiz (PE treatment) and in the other seven courses they were randomly divided into three groups that were given one of three test conditions (treatments NC, CG, and WS). Ely verbally informed all the students that the quiz must be completed without any outside assistance from the textbook, class notes, classmates, etc. Students were allowed to complete the assignment for extra credit worth up to one percent of their total class grade.

After we collected all the quizzes, we graded them and analyzed the grades. Two of the students in the WS did not write a statement about academic integrity, and we did not include their scores in the data. Since we did not observe the students' behavior directly, we used their quiz scores to compare the inclination to cheat across treatments. If students cheated more in a given treatment it is reasonable to expect that they would have a higher average score. We analyzed the data using non-parametric statistics in order to test the following hypotheses.

H1 There is a statistically significant level of cheating among undergraduate business students. Consequently, the average test score in the No Code treatment will be significantly higher than the average test score in the Proctored Exam treatment.

Previous studies demonstrate that cheating among college students is common in unproctored environments (McCabe and Trevino, 1993; and elsewhere). Therefore, we anticipate that the average score in the NC treatment, where students are neither proctored nor have to sign an Honor Code, will be significantly higher than in the PE treatment, where students are monitored, since some of the students in the NC treatment will obtain a higher score by cheating.

The primary objective of the study is to examine how the introduction of an Honor Code affects students' behavior, as indicated in Hypothesis 2.

H2 Students who sign an Honor Code are less likely to cheat than students who do not sign and Honor Code. Consequently, the average scores in the No Code treatment will be significantly higher than the average scores in the Code Given treatment.

Mazar, Amir, and Ariely (2008a) show that signing an Honor Code can trigger ethical norms that influence students to make more ethical decisions. Thus, we anticipate that students in the NC treatment are more likely to earn a higher score by cheating.

Our final hypothesis posits that writing a statement about academic integrity will also reduce cheating among university students.

H3 Students who write a statement about academic integrity are less likely to cheat than students who do not write a statement or sign an Honor Code. Consequently, the average scores in the No Code treatment will be significantly higher than the average scores in the Write Statement treatment.

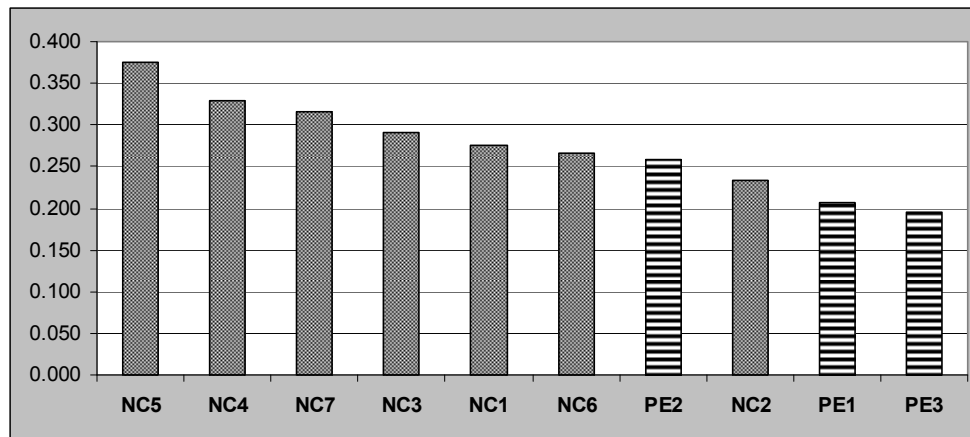
Mazar, Amir, and Ariely (2008b) also demonstrate that writing a statement about academic integrity triggers ethical norms that lead students to make more ethical decisions. Therefore, we anticipate that students in the NC treatment are more likely to earn a higher score by cheating than students in the WS treatment.

RESULTS

We use a Wilcoxon-Mann-Whitney rank-sum test to compare the average scores of the sessions in each treatment. We utilize a non-parametric test since non-parametric statistics are commonly used in experiments and because the test scores are not normally distributed. The p-value of a Wilcoxon-Mann-Whitney test provides the likelihood that a given pattern is a random occurrence. We select a level of significance of .05 since it is the most commonly used value in social sciences and business research. We find that hypotheses 1 and 2 are supported while hypothesis 3 is not supported by the data. The data is presented in the appendix.

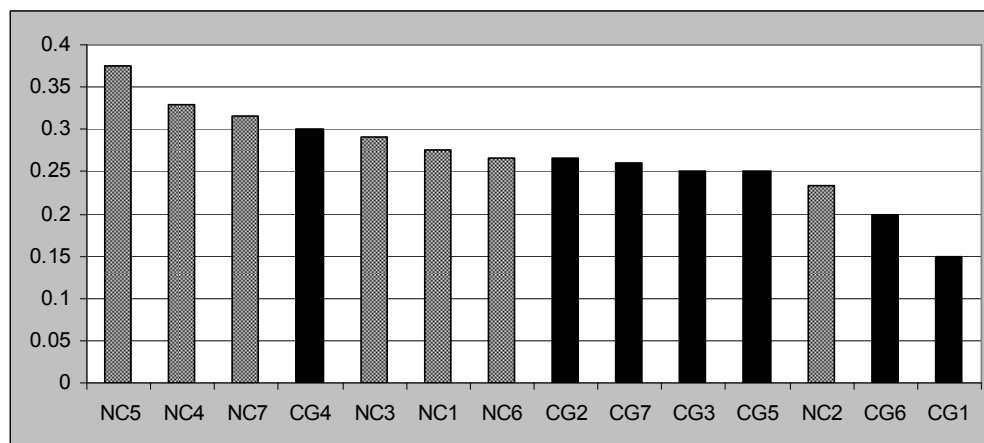
Result 1: There is a statistically significant level of cheating among undergraduate business students.

We ranked the 3 PE sessions and 7 NC sessions from highest to lowest average score (Figure 1). Note that the dependent variable in figures 1 and 2 shows the portion of the questions that students got correct, on average, in each session. Then, using a Wilcoxon-Mann-Whitney test with $m = 3$ (number of PE sessions), $n = 7$ (number of NC sessions), and $W = 7$, we find that the p-value is .0167. The variable W is calculated by assigning a value of 1 to the session with the lowest average score, 2 to the session with the second lowest score, and so on and then adding up the values of all the sessions in the PE treatment. Thus, we accept the alternative hypothesis that students cheat more in an un-proctored environment.

Figure 1: Average Quiz Scores for NC and PE Treatments by Session

We acknowledge that part of the difference in the score could be due to the fact that students took the quiz in different environments. Perhaps some students scored higher in the NC treatment since they took the quiz in a low-stress environment at home. However, since there was no time limit for the quiz in the PE treatment and students were told that the quiz is just worth a few bonus points, it is unlikely that stress had a significant effect on the students' performance. Next, we examine the effects of having the students read and sign an Honor Code.

Result 2: Making students sign an Honor Code significantly reduces the level of cheating among undergraduate business students.

Figure 2: Average Quiz Scores for NC and CG Treatments by Session

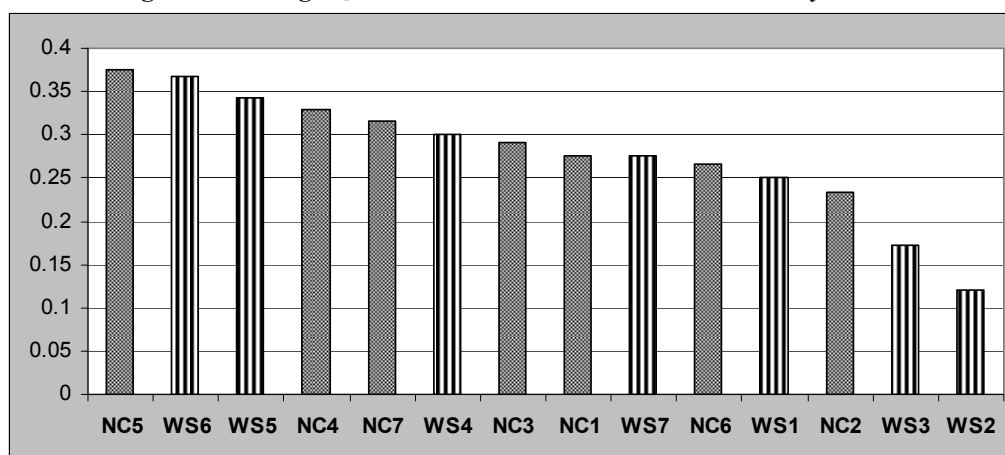
We ranked the 7 NC session and the 7 CG sessions from highest to lowest average score (see Figure 2). Using a Wilcoxon-Mann-Whitney test with $m = 7$, $n = 7$, and $W = 36$ results in a p-value of .0189. Therefore, we accept the alternative hypothesis that students cheat less after reading and signing an Honor Code. The mere act of signing an Honor Code can significantly reduce cheating among college students. But does writing a statement about the important of academic integrity have any effect on students inclination to cheat?

Result 3: There is no statistically significant evidence that having undergraduate business students write about academic integrity reduces cheating.

As seen in Figure 3, when the sessions in the NC and WS treatments are ranked from the highest to the lowest average quiz scores, there is no discernible pattern between the treatments. A Wilcoxon-Mann-Whitney test with $m = 7$, $n = 7$, and $W = 47$ results in a p-value of 0.2675. Therefore, we cannot reject the null hypothesis that writing about academic integrity does not affect the students' behavior. Nevertheless, we cannot conclude that writing about academic integrity does not affect cheating. There might be a way to increase the effectiveness of making students write a statement about integrity by, for instance, making them write at least one page or cite articles that they read on the issue.

It is also interesting to note that there is no statistically significant evidence that students who take the quiz after signing an Honor Code cheat. Using Wilcoxon-Mann-Whitney test to compare the average scores in the CG and PE treatments yields a p-value of 0.2583. This result does not imply that none of the students cheated after signing an Honor Code. However, it does lend further support to the effectiveness of using an Honor Code in order to reduce cheating.

Figure 3: Average Quiz Scores for NC and WS Treatments by Session



DISCUSSION

This study supports the findings of previous researchers that Honor Codes are effective at deterring cheating (Campbell, 1935; Canning, 1956; Bowers, 1964; McCabe and Trevino, 1993; and McCabe, Trevino, and Butterfield, 2001). We find that merely reading and signing an Honor Code reduces cheating amongst undergraduate business students.

We, nonetheless, recognize that our experiment does not indicate that signing an Honor Code always reduces cheating. In particular, most of the students in the experiment signed an Honor Code for the first time and may have reacted differently had they signed an Honor Code in the past. Moreover, there are likely to be additional benefits from carefully instituting a culture of integrity in academic institutions (Hutton, 2006).

We also find that writing a statement about why academic integrity is important does not lead to a statistically significant reduction in cheating. This might be because many of the students did not put much thought into the statements that they wrote – most of the statements were a couple of lines long. Asking students to discuss the importance of academic integrity or to read articles about it before writing a statement on integrity may further reduce cheating.

Not surprisingly, we find that when students take an assessment in an un-proctored environment without signing an Honor Code they are more likely to cheat. Nonetheless, although the average scores in the NC treatment were higher than the average scores in the PE treatment, they were only slightly higher. On average, students in the PE treatment obtained a score of 2.20 out of 10 points, whereas students in the NC treatment obtained a score of 2.98. In fact, only 4.8% of the students in the NC treatment received a score of 7 or higher, which indicates that only a couple of them cheated on most of the quiz questions.

One possible explanation is that many students in the NC treatment decided to cheat but did not understand that they could obtain the answers to the quiz simply by searching for the answers in the index of the textbook. But a more likely explanation is that although students in the NC treatment cheated, they cheated in ways that they could rationalize rather than blatantly cheating. Perhaps they asked a friend a “clarifying” question or looked up something that was “on the tip of their tongue”. Our interpretation is that although cheating among university students is commonplace, most students prefer not to view themselves as cheaters and, consequently, they only cheat sparingly and then rationalize their behavior.

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APPENDIX: SUMMARY OF EXPERIMENTAL DATA

Table 1: Average Score by Session (portion of correct answers)				
Session	NC Treatment	CG Treatment	WS Treatment	PE Treatment
1	0.275	0.150	0.250	0.207
2	0.233	0.267	0.120	0.259
3	0.290	0.250	0.171	0.195
4	0.329	0.300	0.300	
5	0.375	0.250	0.343	
6	0.267	0.200	0.367	
7	0.317	0.260	0.275	

BRINGING BUSINESS PRACTITIONERS TO CAMPUS: EXECUTIVES IN RESIDENCE

Timothy C. Johnston, Murray State University

ABSTRACT

An Executive in Residence course can be used to bring “real-world” experiences into the business education classroom. This paper is based on the author’s experience hosting approximately 53 guests during 5 annual Executive in Residence courses. This paper stresses the value of a formal academic format for an Executive in Residence program, and describes a one-credit-hour course. The paper includes examples of practitioner guests and discusses the benefits and costs of an Executive in Residence course to students, the instructor, and the college. Emphasis is on the benefits of executive guests to students, which include learning what employers want in new graduates as employees; accessing a network for potential job opportunities; learning to match expectations to reality in the working world; and hearing and meeting entertaining speakers. This course has the potential to grow into a more robust experience for practitioners and students, and to introduce the college to “friends” who may provide financial and professional support in the future.

INTRODUCTION

Students of business administration need exposure to real-world perspectives. Faculties, as well as students, have been criticized for their lack of ability to apply theoretical knowledge to real-world problems (Bennis & O’Toole, 2005). According to Aschenreiner & Hein, research on the challenges of teaching students to apply the theories of their discipline has been going on for over 40 years. Instructors have attempted to bridge the gap between theory and practice by using “case studies, live business projects, guest lecturers, field trips, action learning labs, simulations and internships” (Achenreiner & Hein, 2010).

An Executive in Residence program is one method to bring real-world perspectives to the classroom. An Executive in Residence course brings business practitioners to a university campus to meet with students and share their experiences and knowledge. A college of business is motivated to develop an Executive in Residence course by a number of reasons which will be discussed more fully later in this paper. Foremost of these reasons is the need to bring “real-world” practitioner experiences into the classroom.

Who has need for practitioner input into the business classroom? A student needs to better understand business practice and business practitioners. An instructor needs current

knowledge of business practice and fresh anecdotes. A college of business needs a current and relevant curriculum, and to further its mission.

Accreditation by The Association to Advance Collegiate Schools of Business (AACSB) is based on mission-driven objectives, which often include applied learning. Because AACSB accreditation criteria are mission-based, there is not an explicit standard regarding efforts to teach real-world perspectives to business students. Nevertheless, research has shown that almost half of AACSB-accredited programs have some type of executive-in-residence program (Shrader & Thomas, 2004).

AACSB standards reveal an emphasis on applied, practical perspectives. First, according to Standard 2, Intellectual Contributions: “Contributions to Practice (often referred to as applied research) influence professional practice in the faculty member’s field” (AACSB, 2012a), and is one of three types of Intellectual Contributions a faculty member can make.

Second, the discussion of Standard 10, Faculty Qualifications states: “Regardless of their specialty, work experience, or graduate preparation, the standard requires that faculty members maintain their competence through efforts to learn about their specialty and how it is applied in practice” (AACSB, 2012b).

Finally, the AACSB Bridge Program trains practitioners to meet the accreditation criteria of a “qualified” instructor and thereby fast-tracks their transition to the university classroom. A promotional brochure states: “As an experienced business professional, your unique insights and real-world knowledge are extremely valuable to students . . . The world’s top business schools recognize this—and are continually integrating professionally qualified instructors into their faculty.” In summary, a premier accreditor of higher education in business recognizes real-world learning as essential for faculty to become and remain qualified.

In summary, the primary reason for developing an Executive in Residence course is to bring “real-world” experiences into the classroom. Students, instructor, and college all benefit from the input of practitioners. This paper presents an Executive in Residence course design, presents examples of practitioner guests, and discusses the benefits and costs of an Executive in Residence course.

EXECUTIVE IN RESIDENCE COURSE DESIGN

The design of an Executive in Residence-type course can take many forms. Achenreiner and Hein (2010) place Executive in Residence programs into two categories: “full-time” and “short-term.” In a full-time program, executives teach full-time and have sole responsibility to teach a course or courses for one or more semesters. In a short-term program, executives visit campus for periods ranging from one day to several weeks. Several executives could visit in a term and speak to classes, attend events, mentor individual students, etc. Executive in Residence programs have been used in agribusiness education (Litzenber & Dunne, 1996) and to internationalize a business curriculum (Praetzel, 1999).

This paper describes what could be called a “short-term” Executive in Residence course for academic credit, with room to grow into more robust program. Three steps are discussed: (1) Publish a formal Executive in Residence course offering in the university catalog; (2) Invite practitioners to visit the classroom and (3) Build relationships with practitioners through additional activities.

A formal Executive in Residence course in the university catalog has better properties than an informal guest speaker series. Students enroll in the Executive in Residence course as usual, and meet the pre-requisites, which include successful completion of core marketing, finance, and accounting courses. Students who meet pre-requisite requirements are generally advanced students who are looking ahead to life after graduation. Formal registration also ensures that the course has a meeting room and time, and that a consistent audience of advanced students is available.

The author’s courses had the particular characteristics described in the following section. Students earned one semester hour of academic credit. The fact that students earned credit and a grade provided the structure within which the author set course requirements and expectations for performance, as well assigned academic tasks.

An academic component is important for learning. In the author’s courses, students heard the experiences of practitioners, and then reflected on their learning in written form. The task of synthesizing research and information from the visitor created a level of learning and rigor not present in a simple guest speaker arrangement.

A few students were matched with each visitor. The selected students performed additional research and wrote a profile of the visitor, his or her organization, the industry, etc. This assignment guaranteed a few cogent questions from the students to the practitioner, and their reports were distributed to other students.

Each student also met with a guest over lunch on one or two occasions per term. The guest, instructor, and one or two students spent time in conversation over lunch and got to know one another in an informal small-group setting. The college paid for the meal. This was an important activity in that students got to meet with the practitioners in an informal but business-oriented setting, and were able to ask questions and connect with the practitioner more personally. One student received an internship almost immediately after an informal lunchtime “interview.”

At Dartmouth’s Tuck School of Business, the Visiting Executive program “includes informal lunches and dinners with students as well as office hours for individual and small-group meetings” (Tuck, 2004). Treating the practitioner as an honored guest at meals can enhance the “prestige” of serving as an Executive in Residence.

One’s choice of practitioners is important to the success of the Executive in Residence program. Patrick (1969) stated that “the most vital determinant of a successful residency is the quality of the participating executive” and that “broadly experienced and knowledgeable top executives are the best candidates.” He suggested that “generalists in smaller businesses” are a

better choice for Executive in Residence than “big corporation specialists.” Wendel (1981) suggested that the useful Executive in Residence life of a retired CEO is limited, because his “capital (active participation in business) quickly deteriorates.”

Table 1 lists the job titles of visitors to Executive in Residence courses taught by the author. This list features a variety of local and regional organizations, including those of public and private ownership, corporations and small businesses, profit and not-for-profit corporations.

Table 1: Executive in Residence Visiting Practitioners
Manufacturing Manager, Goodyear Tire and Rubber Company
Controller, Quebecor World (Printing and Direct Marketing)
Store Manager, Lowe’s home improvement store
Store Manager, Wal-Mart Supercenter
District Marketing Manager, Federated Insurance
CEO, Community Hospital
Community Bank President, local bank
Consul & Trade Commissioner/Investment, Consulate General of Canada
Financial Services Officer, Farm Credit Services of Mid-America
Vice President of Operations, Ferry-Morse Seed Company
Manager of Machining, Materials, Accounting and MIS, Marvin Windows and Doors
Professional Sales Associate, Sanofi-Aventis (pharmaceuticals)
Owner, Hot Rod Shop
News Anchor, NBC Television Affiliate
Customer Service Manager, Tennessee Valley Authority
State Commissioner of Financial Institutions
Local Manager, telephone company
President, John Deere dealership
Manager, Telemedicine, Health Science Center, teaching hospital
Human Resources Manager, MTD Products (power equipment manufacturer)
Director, local Economic Development Corporation
President, sporting goods store
General Manager, Public Television station
Safety & Environmental Coordinator, local manufacturer
Owner, restaurant
VP, Hispanic Business Alliance
Affiliate Broker/Owner, Realty company

As Table 1 shows, even a College of Business in a small town can host Executive in Residence guests from a variety of industries and academic backgrounds. Prospective Executive in Residence participants includes practitioners with ties to the local community or to the university.

An Executive in Residence course offers the opportunity to build relationships between the college and practitioners with additional activities. “Executive in Residence” implies a deeper role for visitors than simply as a guest speaker.

A goal would be to expand the practitioner's role from the "entry-level" Executive in Residence class described here into a deeper involvement with the college. One could invite the wider college and university community to attend the practitioner's presentation. The practitioner may teach in subject-area courses in which he or she is qualified, such as management, finance, or marketing. Another option would be to have the practitioner bring along staff members who are specialists in the subject areas, and hence provide input into multiple discipline areas. For example, the practitioner could bring along the company human resources manager and conduct mock (or real) job interviews.

The practitioner's involvement could be expanded outside of the business school as well, with roles in university or community activities taking place over multiple days. The practitioner could dovetail his curricular involvement with extracurricular activities such as a sporting event, advisory or alumni board meeting, or a business event if his or her company has a local presence. And of course the relationship between the practitioner and college could deepen over time with multiple visits.

For example, the University of Tennessee at Knoxville has hosted executives in residence since 1975. The UT program has featured about a dozen "high-profile" executives each year. Students in the class must apply and are hand-picked from undergraduate Honors program and MBA students. The students participate in "roundtable" discussions with at least three executives of their choice. Students also participate in two half-hour career mentoring sessions with executives (University of Tennessee, 2006).

BENEFITS AND COSTS

The benefits and costs of an Executive in Residence course are summarized in Table 2, Table 3, Table 4, and Table 5. These tables reflect the viewpoints of students, instructor, college and practitioners, and are based on the author's experience hosting about 53 Executive in Residence visits across five academic terms.

Student feedback was the source of information on benefits and costs to students (See Table 2). Student benefits were: (1) Learn what employers want in new graduates as employees; (2) Access a network for potential job opportunities, (3) Learn to match expectations to reality in the working world and (4) Be entertained by speakers.

Executive in Residence participants with knowledge of and connections to current job prospects are among the most desirable guests for students. According to Dizik (2010) "For business schools, using executives in residence helps add real-life experience to classes that are sometimes steeped in theory. At the same time, it gives the schools readily accessible professionals who have first-hand knowledge of forging career paths in emerging fields such as social enterprise or sustainability."

Table 2: Student Benefits and Costs of an Executive in Residence course

Benefits	Costs
Learn what employers want in new graduates as employees.	Time spent in class, doing research, meeting practitioner.
Access a network for potential job opportunities.	Credit hour tuition costs (no additional cost if a full-time student).
Learn to match expectations to reality in the working world.	
Be entertained by speakers.	

Among the author's students, many advanced students were very interested in getting a job, so they welcomed insights on job hunting and job prospects. A student commented that "many of these people were smart and gave very informative speeches on how much work it is to get to the point of doing what they were doing now. I loved some of the pointers they gave us about how to look for work, how to present ourselves, and how to stand out in front of an employer."

Students had the opportunity meet hiring decision-makers. One student obtained an internship with a practitioner's organization. Another commented, "I recommend this course to anyone that would like to do an internship with a company in the surrounding area, anyone that needs a job and is considering staying or working in this area."

The practitioners helped students bring their expectations in line with the reality of the working world. One student commented that "my thoughts were changed about the short term operational goals of first starting businesses, in that the most successful ones do not start off huge. They start off small and work their way up. I also realized owning your own business is more complicated when you hear it from a true entrepreneur instead of just reading it from the book."

Students valued the opportunity to meet with the practitioner in a small group setting, and to learn what is on the minds of business practitioners. Students also found the class entertaining and enjoyed the variety of programs. A student said, "A highlight of this course was I was able to go to dinner with one of the speakers. Each one of us was able to have one on one contact with one of the speakers. Overall, this class was entertaining and informative class." Another stated that "I learned a lot in general about just how the business world operates and what perspective employers are looking for in employees. I particularly enjoyed the fact that it was a hands-on class that allowed you to interact with real people."

The student costs listed in Table 2, such as time spent in class and on homework, are typical for courses and are assumed since students did not give feedback on their costs.

Instructor costs and benefits are based on the author's experience conducting the course (See table 3). The instructor benefited from (1) learning current business practice to use as examples in teaching and (2) learning current career advice to give students. The instructor

heard business anecdotes that were useful for other classes. The instructor also found that having up-to-date information about jobs was valuable to students not in the Executive in Residence course. The one-hour format added variety to the curriculum while fitting within the instructor's workload and students' course load.

Table 3: Instructor Benefits and Costs of an Executive in Residence course

Benefits	Costs
Learn current business practice to use as examples in teaching.	Time spent preparing for class, coordinating visits, evaluating assignments, time in class.
Learn current career advice to give students.	Time spent getting a course added to the college catalog (one time).

The instructor was faced with the normal time and effort to manage a course, plus the added effort to coordinate and host guests to campus. The Executive in Residence course took more of the instructor's time to coordinate than one-hour of a "traditional" academic course.

One potential concern is that a faculty member may not possess the wherewithal to organize a series of Executive in Residence visitors, including the inclination to make and maintain relationships with business practitioners and organize visits to campus. There are a few ways to address this issue.

First, there is likely to be only one Executive in Residence course per college of business (or large department), so the assignment to serve as instructor could go to a faculty member inclined toward outreach activities. Second, the author enlisted the help of the Dean and development staff to identify Executive in Residence guests. They were happy to identify alumni and potential friends of the college to honor with the Executive in Residence invitation.

Thirdly, the instructor can, with the support of the Dean's office or department, gain assistance from staff to coordinate the logistics of the visits. Finally, the instructor can promote the executive's visit broadly, the make the real-world contribution of the guest available to the university community (meeting time and space permitting).

The college benefited from the ability to provide practitioner knowledge as an option in the curriculum for students (See Table 4). The college also made progress toward its mission of involving practitioners and organizations in the teaching process. For example, since 1995 the objective of the Executive in Residence program at Iowa State University has been "to enhance the educational programs in the College of Business by enriching the learning environment of both undergraduate and graduate students and fostering research ideas for faculty and graduate students. The program is also intended to provide faculty and staff involved in outreach activities with new ideas and perspectives on how to serve the business community" (Iowa State, 2004).

Executive in Residence visitors may become deeper "friends" of the college and provide professional or monetary support. For example, the Executive in Residence program of the Center for Retailing Studies has an objective to "familiarize executives with our retailing program, Mays Business School, and Texas A&M University" (Texas A&M, 2004).

Table 4: College Benefits and Costs of an Executive in Residence course	
Benefits	Costs
Provide practitioner input to students in the business curriculum.	Cost of faculty time.
Contribution to achieving college mission and objectives (e.g. outreach; service to community).	Cost of meals.
Potential new “friends” of the college.	

The University of Iowa’s College of Business got a boost when the chairman emeritus of HON industries (and visiting faculty member in the college's Executive in Residence program) donated \$2.5 million for an endowed professorship (FYI, 1998). At the University of California at Davis, a former visiting executive donated \$350,000 to support the Executive in Residence program (UC Davis, 2007).

The costs of supporting an Executive in Residence class to the college were the costs of meals (about \$400 per term) and the cost of instructor time (offset by student credit hours).

Practitioner costs and benefits are listed in Table 5. Practitioners have gotten the opportunity to share their experiences with an attentive, appreciative, and admiring audience. He or she received the satisfaction of helping students by sharing his or her experiences. This benefit is more psychic than tangible, but valuable nonetheless. In describing his Executive in Residence experience at Cornell, Wendel (1981) said, “I was exposed to lively inquiring minds, an informal and relaxed atmosphere, a beautiful campus, (and) distinguished scholars in diverse disciplines throughout the university.”

Table 5: Practitioner Benefits and Costs of an Executive in Residence course	
Benefits	Costs
An attentive audience of students.	Time and travel costs.
A chance to help others by sharing his or her experiences.	
Association with the Business School.	
Opportunity to meet prospective employees	
Forum for promoting his or her firm	
A free lunch	

Practitioners in the author’s courses shared information on job opportunities at his or her organization, and met potential new employees. The practitioner got to associate himself or herself, and his or her organization, with the university. The practitioner may be able to advance his or her firm’s goals by meeting prospective employees and promoting the firm. On top of these benefits he or she received a free lunch and a warm thank-you letter on college letterhead. Practitioner costs were time and energy spent on the visit and costs of travel.

CONCLUSION

In summary, an Executive in Residence course can be used to bring “real-world” experiences into the business education classroom. This paper stressed the value of a formal academic format for an Executive in Residence program, and described a one-credit-hour course. The paper included examples of practitioner guests and discussed the benefits and costs of an Executive in Residence course to students, the instructor, and the college.

Students benefit by learning what employers want in new graduates as employees; accessing a network for potential job opportunities; learning to match expectations to reality in the working world; and hearing and meeting entertaining speakers. This course has the potential to grow into a more robust experience for practitioners and students, and to introduce the college to “friends” who may provide financial and professional support in the future.

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THE EFFECT OF HUMAN INTERACTIONS ON STUDENT PERFORMANCE AND SATISFACTION OF BLENDED LEARNING

Chan Du, University of Massachusetts Dartmouth
Jia Wu, University of Massachusetts Dartmouth

ABSTRACT

This paper examines whether human interaction in blended learning enhances student performance and satisfaction for an introductory principles of accounting course over the period 2010-2011. It has been argued that interaction is one of the most important components of any learning experience (Dewey, 1938; Vrasidas & McIsaac, 1999). Results indicate that the blended course with greater human interactions does not impact the student performance after controlling several control factors such as prior GPA, math grade, gender and transfer status. However, student evaluation improves with greater interaction, suggesting human interaction is associated with greater satisfaction with teaching.

INTRODUCTION

It has been argued that blended learning allows faculty to integrate the best of the online learning environment with the best of the face-to-face learning environment (Graham, 2005), and it works better than purely online and purely face-to-face learning. However, it has not reached a consensus on how to better incorporate the face-to-face and online teaching resources. This study provides additional evidence on blended course implementation, student performance and satisfaction for introductory financial accounting course by emphasizing the effect of human interactions in blended course.

Interaction is one of the most important components of any learning experience, and it has been identified as an essential characteristic of successful distance learning courses (Fulford & Zhang, 1993; McIsaac & Gunawardena, 1996; Moore, 1989; Wagner, 1994). Previous studies have identified a theoretical basis for defining interaction (Hillman, Willis, & Gunawardena, 1994; Moore, 1989; Wagner, 1994; Zhang & Fulford, 1994). (Moore, 1989) distinguishes three types of interactions for distance education: (1) learner-instructor interactions that provide motivation, feedback, and dialogue between teacher and students; (2) learner-content interactions, through which students may acquire facts; (3) learner-learner interactions, through

which students exchange and sharpen subject-related knowledge. (Hillman et al., 1994) argue that past discussions of interaction failed to acknowledge the fact that for any of the three types of interactions to take place, the learner had to interact with the medium. Therefore, they propose a learner-media interaction. (Zhang & Fulford, 1994) emphasize the important and complex interplay between interaction for instructional purposes and interaction based on social connections and perceptions of connections among participants. In this study, we focus on two human interactions: learner-instructor interactions and learner-learner interactions.

(AACSB, Revised 2007) recommends that a mix of student-faculty and student-student interaction be included in quality distant learning program. Considering behavioral and cognitive theory, (Bryant & Hunton, 2000) argue that “Feedback should be given to students to monitor their progress and reinforce positive behavior.” (Guideline #3). “Individual characteristics of learner should be taken into account in instructional design, e.g., the prior knowledge of the student, the motivation of the student, and the learning style of the students.” (Guideline #4). (Bryant, Kahle, & Schafer, 2005) raise questions such as “what are the factors related to student satisfaction with a technical topic like accounting?” as well as “how does increased interactivity promote knowledge transfer in accounting distance education?” This study tries to answer these questions by looking at the human interaction in blended introductory financial accounting courses.

The empirical tests use one blended course for two semesters. The difference is that one semester has greater human interactions. We posit that the communication from the instructor prior to the online assignment, the timely feedback on the individual/overall task performance, as well as the communication among the student group members effectively enhance student motivation and mental effort. It enhances the student’s performance and, in turn, the evaluation of the course. Results using an introductory accounting course over the period 2010-2011 indicate that the blended course with greater human interaction does not impact the student performance after controlling certain control factors such as prior GPA, math grade, gender and transfer or freshman start status. However, students' evaluations have improved with greater interaction. The results indicate that human interaction is associated with greater student satisfaction.

RESEARCH HYPOTHESES

With blended learning, the learning process changes from a teaching-centered to a learning-centered process. The interactive methods are different for face-to-face versus distance learning settings. (Vrasidas & McIsaac, 1999) identify four factors influencing interaction in an online course from both teacher and student perspectives, which include structure of the course, class size, feed-back, and prior experience with computer-mediated communication. They argue that some structures of the course such as requiring students in discussing the final paper outline

with the teacher, collaborating on peer editing of students' papers, and participating in online discussions lead to more interactions and increased dialogue among students, while other aspects of structure such as demanding amount of workload and the schedule of face-to-face and online meetings lead to fewer interactions. Further, the smaller the class size, the less the interactions during the asynchronous online discussions. In addition, feedback influences interaction. The teacher should provide timely feedback to students' contributions in all aspects of the course. Lastly, prior experience with computer-mediated communication influences interaction. Participants with limited prior experience may feel intimidated when others use emoticons during their interactions. Communication from the instructor prior to the online assignment and timely feedback on the individual/overall task performance, and communication among the student group members can effectively enhance student motivation and mental effort. It enhances the student's performance and, in turn, the evaluation of the course. This study hypothesizes that human interactions such as timely feedback and group work in blended course will motivate the students and enhance students' course performances.

The hypothesis is stated as follows:

H1 A blended teaching model that incorporates human interactions improves the student final performance.

In addition to learning outcomes, students' satisfactions of blended course are important. Prior studies have found mixed results for students' satisfaction on blended course. For example, (Love & Fry, 2006) find that few students view the web-based environment as a "springboard" to enhance education performance. The online version of teaching materials does not motivate students to either attend face-to-face sessions or to use the online materials to engage in an independent and deep approach to learning. Their findings do not support existing literature that the web-based environment contributes to improved relationships in terms of communication between learner-tutor and learner-learner. On the other hand, (Jones & Chen, 2008) find that blended learning students are significantly more likely to indicate that the instructor provides prompt feedback outside of class, is available to answer their question, and keeps students informed of their progress. However, students in blended class are significantly less likely to indicate that instructor explains the material in an interesting manner, and the students are less satisfied with the interaction between instructor and students. (Stevenson, Sander, & Naylor, 1996) find that timely and encouraging feedback on their assignments directly affected students' general sense of satisfaction with the course. Hypothesis 2 is stated as follows:

H2 A blended teaching model that incorporates human interactions improves the student satisfaction.

RESEARCH METHOD

Course Design

Principles of Accounting I (ACT 211) is an introductory financial accounting course and is required for all students and all degrees offered by the business school. In addition, a portion of students come from other colleges such as Arts & Sciences, Liberal Arts, and Engineering. Therefore, the students range from freshman to senior, and some of them are not business major. For a large portion of the students, this class will be the only accounting course that they take. Among these students, many tend to have negative attitudes towards accounting (Mladenovic, 2000).

The course objective of ACT 211 is to provide students a basic understanding of accounting and to use accounting information to make business decisions. Topics covered in the course include basic accounting concepts and procedures through the analysis, classification, recording, and summarizing of business transactions; preparation and analysis of the major financial statements; and recording and reporting the major components of the statements, such as cash, receivables, inventories, long-lived assets, payables, notes, bonds, equity, and investments.

Prior to fall 2010, the ACT 211 was delivered using a traditional teaching model that involved two 75-minute sections each week, supplemented by WebCT. Lecture slides were posted on WebCT for student convenience. Announcements were made through email and WebCT. Homework solutions were posted after returning the students' assignments. Student grades were updated each week on WebCT. The instructor collected the homework assignments and handed back after grading them. The face-to-face meeting included lecture discussion and in-class exercises. In fall 2010, the ACT 211 was granted Davis grant for Implementation of Blended Learning for the Improvement of Student Learning (IBIS) and delivered using the blended learning model. Through intensive training during summer 2010, the course was redesigned from web-enhanced learning to blended learning.

(Wagner, 1994) proposes three prerequisites in order to make interaction a more useful construct for distance learning environments: (1) an operational definition of interaction based on relevant theory and research; (2) course designs that go beyond replicating face-to-face methods and infuse interaction in ways that take advantage of the mediation possible between learner and technology; and (3) empirical assessments of interaction and measurement of effects on achievement.

To go beyond replicating face-to-face methods, the blended course design in ACT 211 was not to just post materials online as web-enhanced learning. It shifted some of the learning activities online. For example, online tools were designed so that students could learn by themselves and from each other before and after classes. Ways for students to learn before class included posting knowledge-based questions / quizzes/ video/ slides online, and required

students to submit answers online before the class started. Ways for students to learn during class included in-class discussions and individual or group cases and exercises. Ways for students to learn after class included (1) asking students to post on discussion board what was the most confusing part of the class and what they thought was the main point of the class, (2) after-class online individual homework and quizzes, and (3) online group real company analysis postings and comments. The design of blended courses follows (Shibley, 2009) and (Michaelsen & Black, 1994). Bloom's Taxonomy classifies the education objective into six categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (Bloom, 1956). (Shibley, 2009) suggests that lower level of Knowledge and Comprehension be learned by the student themselves before class and tested through short online quizzes. (Michaelsen & Black, 1994) discuss that one of the key course design considerations in team learning is Readiness Assurance Process (RAP), which is in consistent with (Shibley, 2009).

Assessment of student performance in the blended course was based on homework assignments (turned in via Homework Manager or Connect), in-class exercises, in-class participation, publisher's online quizzes (turned in using WebCT), a company social responsibility writing project, two midterm examinations, and a final examination, as well as the online components including before-class quizzes, after-class comments postings, and real company case and project postings. The formats of the midterm and final examinations were 44 and 66 multiple choice questions, which increased the comparability of the student performance during two years. The classes were taught by the same instructor using same materials for two semesters. Both classes used the same textbook, homework assignments and publisher's online quizzes.

In fall 2010, the blended course was taught with less human interactions as compared to spring 2011. For example, in fall 2010, students complained that there was too much work to do, and instructor indicated that monitoring students' online postings were time-consuming. As a result, the instructor did not provide much feedback for the online portion of the course due to time constraints. Students also felt that their peers did not provide them with enough feedback on online discussions. In spring 2011, instructor worked hard to provide timely feedback on student performances. In addition, the real company analysis case and project was redesigned as group project instead of individual work to enhance interaction between learner and learner. The students were assigned into groups at the beginning of the semester.

Empirical Model for Student Performance

The empirical model is as follows:

$$\text{Grade} = \alpha_0 + \alpha_1 \text{Type} + \alpha_2 \text{Gender} + \alpha_3 \text{Transfer} + \alpha_4 \text{Mathgrade} + \alpha_5 \text{PriorGPA} + \alpha_6 \text{BusinessProg} + \alpha_7 \text{Level} + \text{error}_t$$

where,

Grade = final course grade or final exam grade in financial accounting course.

Type = 1 if blended with greater human interaction (spring 2011), 0 if blended with less human interaction (fall 2010).

Gender = 1 if male, 0 if female.

Transfer = 1 if transfer student, 0 freshman start.

Mathgrade = Math 103 grade, math course taken when first entering college.

PriorGPA = prior grade point average (GPA) before taking financial accounting course.

BusinessProg = 1 if business program, 0 otherwise.

Level = 1 if sophomore, 0 otherwise.

Hypothesis 1 posits that blended teaching model directly improves the student final performance, which suggests that $\alpha_1 > 0$.

Student evaluation of teaching

The student evaluation form uses a standard set of measures to evaluate the course and the instructor. There are 15 questions in the evaluation form. The student evaluations are based on 1 (Strongly Disagree), 2 (Disagree), 3 (No Strong Opinion), 4 (Agree), and 5 (Strongly Agree) scale. The student evaluations are performed at the ending 15 minutes of the last scheduled class. The instructor is absent from the room while students conduct their evaluations. The form and responses are then collected by a student volunteer and deliver to the department. The evaluation results are sent to the instructor at the beginning of the next semester.

Sample

The sample includes students who completed Principles of Accounting I in fall 2010 and spring 2011. In fall 2010, 51 out of 52 students completed the course; in spring 2011, 46 out of 50 students completed the course. Following (Dowling, Godfrey, & Gyles, 2003), a student is classified as completed the course if he/she has attempted the final examination. 25 students without math grade or prior GPA are also dropped from the sample. The final sample includes 71 students: 40 from fall 2010 and 31 from spring 2011.

The student information including academic affiliations, gender, and prior grade point average (GPA) is presented in Table 1. The students come from a variety of academic backgrounds, and vary for the sample period. There are 0.5% (2) in Arts and Science in fall 2010, 44% (15) in Arts and Science in spring 2011. Business major is 38/40 (95%) in fall 2010, and 13/31 (42%) in spring 2011. Male is 30/40 (75%) in fall 2010, and 19/31 (61%) in spring 2011.

The descriptive statistics on final course grades and final examination grades indicate that there are no statistically significant differences for high and low human interactions. In addition, the control variables PriorGPA, Mathgrade, gender, and transfer are not significantly different.

Table 1. Student Information for Blended Courses With High and Low Human Interaction						
Panel A						
Items			Greater Human Interaction (Spring 2011)		Less Human Interaction (Fall 2010)	
By academic affiliation						
Arts and Science			15		2	
Engineering			3		0	
Business			13		38	
Business Undeclared			7		22	
Accounting			2		5	
Other Business Majors			4		11	
Total			31		40	
By Level						
Freshman			2		20	
Sophomore			24		19	
Junior			5		1	
By Gender						
Male			19		30	
Female			12		10	
Total			31		40	
Panel B						
Variables	Greater Human Interaction (Spring 2011)		Less Human Interaction (Fall 2010)		Mean t-test (t-value)	Wilcoxon Median test (z-value)
	Mean	Median	Mean	Median		
Overall mark	76.260	76.92	76.335	78.38	-0.021	0.116
Final exam	70.679	67.52	70.524	71.775	-0.454	-0.389
Prior GPA	2.648	2.7	2.670	2.843	-0.351	-0.301
Math grade	2.752	2.7	2.63	2.85	0.538	0.397
Gender	0.613	1	0.75	1	-1.234	-1.230
Transfer	0.194	0	0.075	0	1.491	1.479
Note: The variables are defined as follows. Gender = 1 if male, 0 if female. Transfer = 1 if transfer student, 0 freshman start. Mathgrade = Math 103 grade, math course taken when first entering college. PriorGPA = prior grade point average (GPA) before taking financial accounting course.						

RESULTS

Table 2 presents regression analysis of final examination grade (Model 1) and total course grade (Model 2) for high and low human interactions after controlling for gender, transfer

status, math grade, prior GPA academic affiliation, academic level. The results show that Type is not statistically significant, which does not support hypothesis 1. The only significant factor is PriorGPA. Student with higher prior GPA receives higher grade in the class.

Table 2. Regression Results for High and Low Human Interactions on Blended Course				
Dependent variable	Model 1 (final exam grade)		Model 2 (final course grade)	
Intercept	24.451**	(2.59)	33.077***	(4.41)
Type	0.631	(0.13)	0.655	(0.17)
Gender	3.265	(0.78)	2.252	(0.68)
Transfer	4.134	(0.74)	2.384	(0.54)
Mathgrade	1.693	(0.72)	2.206	(1.19)
PriorGPA	12.200***	(3.36)	12.700***	(4.41)
Program	3.689	(0.72)	-0.519	(-0.13)
Level	3.763	(0.92)	2.400	(0.74)
Adjusted R ²	0.217		0.334	
F	3.78		6.01	
Significance	0.001***		0.000***	
observation	71		71	
Notes: The variables are defined as follows. Gender = 1 if male, 0 if female. Transfer = 1 if transfer student, 0 freshman start. Mathgrade = Math 103 grade, math course taken when first entering college. PriorGPA = prior grade point average (GPA) before taking financial accounting course. BusinessProg = 1 if business program, 0 otherwise. Level = 1 if sophomore, 0 otherwise. The t statistics are in parenthesis. ***/**/* denote the significance at the 0.01/0.05/0.10 level.				

Table 3 provides the results on student satisfaction for the course. Among the 15 evaluation questions, seven (ten) items are significantly higher for greater human interaction than less human interaction at 5% (10%) significance. These include the students' views of instructor, such as "Instructors was concerned that students learn and understand"; "Instructors was able to transmit knowledge clearly"; "Instructor used class time effectively". The items also include students' views of the course, for example, "Course was well organized"; "Teaching materials required for this course was helpful". On the other hand, opinions regarding exams and grading fairness remain the same.

Table 3. Student Satisfaction for High and Low Human Interactions on Blended Course

Items	Spring 2011: Greater Human Interaction Mean (Median)	Fall 2010: Less Human Interaction Mean (Median)	Two-sample t test p-value for Mean Difference	Two-sample Wilcoxon rank- sum (Mann- Whitney) test for Median Difference
1. Instructor used class time effectively.	4.438 (4.5)	3.462 (4.0)	0.008***	0.014**
2. Instructor was able to transmit knowledge clearly.	3.625 (4.0)	2.769 (3.0)	0.018**	0.032**
3. Instructor was able to generate student interest in the course material.	3.563 (3.5)	3.0 (3.0)	0.077*	0.274
4. Instructor was well prepared for class sessions.	4.625 (5.0)	3.923 (4.0)	0.014**	0.031**
5. Instructor attended classes regularly.	4.875 (5.0)	4.462 (5.0)	0.065*	0.099*
6. Instructor was open to relevant discussion in class.	4.063 (4.0)	3.923 (4.0)	0.341	0.798
7. Instructor was concerned that students learn and understand.	4.438 (4.0)	3.846 (4.0)	0.043**	0.130
8. Instructor showed an interest in and respect for me as an individual.	4.313 (4.0)	3.923 (4.0)	0.084*	0.163
9. Objectives and topics of this course were made clear.	4.063 (4.0)	3.769 (4.0)	0.221	0.752
10. My course responsibilities were well defined.	4.375 (4.0)	3.615 (4.0)	0.040**	0.127
11. Course was well organized.	4.188 (4.0)	3.462 (4.0)	0.039**	0.095*
12. Teaching materials required for this course were helpful.	4.375 (4.0)	3.462 (4.0)	0.009***	0.013**
13. Exam content was representative of the course content and objectives.	4.25 (4.0)	4.0 (4.0)	0.260	0.814
14. Exam items were clear and well written.	4.188 (4.0)	4.0 (4.0)	0.313	0.981
15. Exams, homework and projects were graded fairly.	4.188 (4.0)	4.231 (4.0)	0.557	0.832
Note: The student satisfactions were based on 1 (Strongly Disagree), 2 (Disagree), 3 (No Strong Opinion), 4 (Agree), and 5 (Strongly Agree) scale. It was performed at the ending 15 minutes of the last scheduled class. The instructor was absent from the room while students conducted their evaluations. The form and responses were then collected by a student volunteer and delivered to the department. The evaluation results were sent to the instructor at the beginning of the next semester.				

SUMMARY

Blended course combines traditional delivery with online teaching resources to enhance the quality of student learning. Recently, studies have examined whether blended learning model enhances the student performance as compared to traditional learning model. This study adds to this literature by examining whether human interaction in blended course will enhance student performance and satisfaction.

(Bryant & Hunton, 2000) suggest that the underlying theory for technology research include behavioral and cognitive theory. Behavioral theory focuses on the manipulation of controllable variables to achieve a desired, quantifiable outcome and the cognitive theory focuses on the interaction between the media and the learner. The emphasis is to identify learner variables that mediate learning and to understand the mental processes that occur within the learner. As both behavioral and cognitive influences play important roles in designing instruction, the instructional design should have focused on both behavioral and cognitive influences. Based on cognitive theory, the degree of interactive participation by the learner is highly influential in enhancing learning outcomes.

Using an introductory principles of accounting course over the period 2010-2011, the results indicate that the blended course with greater human interaction does not impact the student performance after controlling certain control factors such as prior GPA, math grade, gender and transfer. However, students' evaluations have improved with greater interaction, suggesting that human interaction is associated with greater satisfaction with teaching.

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I'M GEN Y, I LOVE FEELING ENTITLED, AND IT SHOWS

Christopher S. Alexander, King's College
James M. Sysko, Eastern Illinois State University

ABSTRACT

Entitlement, as defined by The American Heritage Dictionary (1985), is “to furnish with a right or claim to something.” In a previous study, the authors investigated the possible cognitive determinants which have led to an “entitlement” mentality found in “Generation Y” individuals (“Millenials”) confronting both academicians and employers.

This paper extends this research stream by examining the resulting affective and behavioral attitudinal components arising from this “entitlement” mindset. The research draws from an extensive review of relevant literature and results from focus groups used to validate the constructs leading to the development of an instrument which was utilized to measure the antecedent cognitive constructs and the resulting affective and behavioral effects leading to the entitlement attitude detailed in this paper. The findings and implications of this research will be discussed.

INTRODUCTION

A significant demographic shift is now occurring as members of the “Baby Boomer Generation” (1946-1964) pass from the workforce into retirement. They take with them a work ethic driven by success, ambition, high achievement and a loyalty to their careers and organizations.

While “Generation X” (1965-1981), with their work values of team orientation, a work/family life balance, and loyalty to relationships, dominates the current workforce population, the Millenials, also known as “Generation Y” (1982-2009) have begun to stream into the labor market. The Millenials seem to bring with them a hedonism, narcissism, and cavalier work ethic previously unknown in the American workforce. Nonetheless, these negative traits are contradicted and counterbalanced by this same generation’s loyalty to individual managers (not corporations); a commitment to idealistic corporate visions and values; and a willingness to provide an employer with hard work, albeit in exchange for virtually immediate reward and recognition.

Most notably, the Millenials treat technology as their “sixth sense”. It is a significant characteristic and skill set that distinguishes them from members of other generations (Deal, Altmann & Rogelberg, 2010). The Internet, cell phones and online social networking were all

introduced during the growth years of the Millennials. They are “natives” to the technology while members of all other generations, no matter what their individual technological proficiency may be, are seen as “immigrants” (Hershatter & Epstein, 2010).

Members of the “Baby Boomer Generation”, who are often in the upper echelon of corporate management; and the mid or lower level managers from “Generation X” are confronted, and confounded, by the ambiguous attitudes and conflicting behavior of their Millennial employees. Managers in the latter generation are particularly frustrated when they contrast their “sink or swim” entry into the workforce with the organizational “accommodations” offered to Millennials. (2010). Nonetheless, understanding and adapting to this new generation’s work ethic will be critical to the restored, continued or future success of American business and industry.

Millennials display similar attitudes and behavior toward academia. College instructors find that many possess an astonishing lack of drive, motivation and accountability. The mindset of many Millennials is that just “showing up” for all the classes merits a minimum grade of “B” (Newsweek, 2009). There is also evidence of an alarming attitude of “OK. I’m sitting here in class; entertain me.” Most disturbing is the Millennial students’ lack of concern for the accuracy and the validity of their research sources; their inclination to trust peer opinion and public consensus; and their lack of original thought (Hershatter & Epstein, 2010).

THEORETICAL FRAMEWORK

Morrow (2008) has developed a theoretical framework delineating the origins of the mindset of entitlement displayed by Millennials. His research highlights the fact that members of this generation tend to have had child centered parents who exhibited a “trophy for all” attitude in what were previously competitive activities. Such parental attitudes and behaviors create unrealistic expectations by the children who are often unable to comprehend that not everyone wins and that their efforts may often result in failure.

Morrow also addresses the phenomenon of “helicopter parents”, or those parents who “hover” over their children and impede a child’s development of a good sense of independence and responsibility. This practice may have contributed to the Millennial’s risk adversity and fear of ambiguity (Hershatter & Epstein, 2010).

Jayson (2007) found that the motivational constructs behind the entitlement mindset include loyalty, getting rich, meeting family and peer expectations, a desire for fame, being the family provider and living a modest, yet comfortable, lifestyle. Nations (2007) also discovered that a desire for personal time, opportunities for advancement and personal growth, security, a desire for intrinsic rewards, leadership opportunities and team development all served as motivators of this group.

While much of the recent research touts the Millennial worker’s loyalty, teamwork and commitment to corporate mission (Hershatter & Epstein, 2010), there is substantial data to

suggest that the same worker is twice as likely to leave a company within one year of hire (Ethics Resource Center, 2010). Other areas of concern center on the evidence of obesity and other unhealthy behaviors, and the absence of cultural and intellectual pursuits by Millennials (Deal, Altman & Rogelberg, 2010).

When measuring the impact of the Millennials on academia or the workforce, one need only examine their demographics: they are more than 60 million in number; are three times the size of Generation X; one third is non-Caucasian; three quarters have a working mother; and, in 2010, 37% were unemployed. Although they are computer savvy, with three quarters creating a profile on a social networking site, they suffer from computer overload. (State of Montana Journal, 2007 & Pew, 2010).

Saba (2007) finds the mentality of entitlement to consist of short term financial goals, a sense of privilege, anticipation of long-term financial gains and an effort to command, not earn, respect.

METHOD

This research was conducted in three phases. The first phase of the research, which drew from an extensive review of relevant literature and the results from interviews with ten focus groups comprised of five subjects each. The focus groups were used to validate the constructs leading to the development of the instrument included in this study. That instrument measured the cognitive antecedents leading to an entitlement mentality; to provide understanding of this issue; and to measure the resulting affective and behavioral attitudinal components.

Given the nature of the population, a convenience sample was used in this phase and was based on responses by undergraduate students who were willing to participate in the study. Standardized open-ended interviews were utilized. With this type of approach, each person was asked to provide his or her answers to the questions which were written in advance and drafted exactly the way they were to be asked in the interview. Standardized, open-ended interviews are systematic and ensure that the interviewer's and interviewee's time is used efficiently. Using standardized questions also made data analysis easier and added credibility to the responses because questions were evaluated prior to the actual interviews. However, to allow for individual circumstances that may not be addressed by standardized questions, respondents were also given the opportunity to raise additional issues that they considered to be important in relation to work experiences/behaviors that would contribute to the constructs under investigation.

The second phase, and the subject of this paper, consisted of a survey administered to a convenience sample of two hundred and seventy-two undergraduate business school students at two different institutions: a four year private college and a state sponsored university. The survey contained fifty items measuring each of the constructs. This paper details the affective and behavioral actions resulting from this mindset.

FINDINGS AND FUTURE DIRECTIONS

In terms of the affective aspects of the entitlement attitude, strong support was found for the following constructs: members of this cohort group feel that they can do anything; in their lives, everything should revolve around them; they are very loyal; they tend to be more loyal to an organization that shares their values; and they feel that teamwork is important.. Some support was found for the following constructs: that they rarely feel independent from their parents; they feel that they have good computer skills; they tend to be suspicious of others; and they like challenging work. Little support was found for the following constructs: they feel that they disappoint their parents; they care for others as long as it is reciprocated; and when raises are given, they should always receive one.

As for the behavioral results, strong support was found for the following constructs: this cohort group is willing to work its way up the ladder to achieve monetary goals; they believe they live up to or exceed their friend's expectations; time for self is very important; they act proactively, not reactively; they are loyal to their employer regardless of reward; and they enjoy a challenge. Some support was found for the following: regardless of performance, a trophy was always received; in terms of extracurricular activities, a form of recognition was always received; if they are hurt, loyalty stops; they will only do something if they have to do it; they are the first to tackle a challenge; they complete tasks before they are due; and they will do something as long as there is a benefit attached. Little support was found for the following: in order to get rich, it is as easy not to work as it is to work; they let their friends down on a regular basis; they are content as doing as little as possible; and at work they need to be told what to do.

Affective constructs and the resulting behaviors as influenced by previously studied cognitive antecedents (Alexander & Sysko, 2012) were supported by this study. However, one might argue that a self-serving bias or demand characteristic may have affected the results of the interview as well as the completion of the survey, inasmuch as the subjects' responses may have reflected poorly on them. A possible answer to this criticism is, while this argument is probably true, phrasing the questions in the third person, e.g., "Do you feel that individuals in the 18 – 22 year old age group have parents who tend to smother them? Limit their independence? Put them at the center of the universe?" may have helped to reduce this threat.

Regardless, the personal interviews did support the theoretical framework detailed in this paper. As seen in this study, the results indicate specific areas in which academicians, supervisors, subordinates and coworkers, may better understand the motivations, thought processes and resulting behaviors of the Millennial cohort. In addition, this study may provide some food for thought for the parents of the next generation regarding ways in which to discourage and deal with this type of behavior. Although this paper is incomplete as to the predictors of or results of entitlement behavior, it can serve as a starting point for understanding the behavior of this group as it moves through college into the workforce.

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