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Improving Motivation and Persistence of Online Human Resource Students Through the Use of E-mail Communication: A Study Employing a Single Case Study Design

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ABSTRACT

The purpose of this study was to evaluate the effectiveness of using e-mails to motivate and retain online learners. The study used a single case study design to quantify the number of discussion posts the students selected for the study made. Using ABA design, the researcher observed four students who did not make the discussion posts needed for each week and made an intervention of e-mailing each student at the beginning of each week. The findings resulting from the study showed that the intervention used made a difference in the behavior of students and enabled them to perform better in the virtual class.

INTRODUCTION

Over the past two decades, online learning has emerged as an increasingly popular alternative to traditional classroom instruction for many students and universities (Al-Asfour & Bryant, 2011; Larreamendy-Joerns & Linhardt, 2006; Tallent-Runnels et al., 2006). Not only have higher education institutions been using distance education as a form of delivering education, many companies have also been using the Internet to provide education to their employees. In 2006, a survey of Fortune 500 companies by the American Society of Training and Development (ASTD) found that the percentage of companies who have computer-delivered training programs has increased drastically. According to the study, 60% of these training programs were conducted using e-learning (Rivera & Paradise, 2006). Government agencies are no exception to the practice of employing e-learning. The U.S. military has recognized the importance and flexibility of online learning. This method of learning is utilized by the U.S Department of Defense through the Advanced Distributed Learning Initiative program. The program is intended to provide education and training to more than three million personnel any time of the day and anywhere they are located (Curda & Curda, 2003).

The Sloan Consortium (n.d.) defines a traditional course as one that uses no online technology, which refers to the use of the Internet or any hybrid method of learning. On the other hand, an online course is one in which all of the content of the course is delivered through the use of the Internet (Allen & Seaman, 2008). The use of the Internet was slow in the beginning of the 1990s and later, within the same decade, had expanded exponentially (Al-Asfour, 2012). In addition, based on a report of 2,500 colleges and universities by Allen and Seaman (2010), it was mentioned that online enrollment had increased significantly. To illustrate this increase, online enrollment has increased from 9.6 percent in 2002 to 25.3 percent in 2008. It is estimated that there were 4.6 million students enrolled in 2008 who were registered for at least one online course. The growth rate for online courses currently exceeds that of face-to-face in higher education (Allen & Seaman, 2010).

Because e-learning has been used in education, business, and government agencies, it is imperative for researchers to investigate all dimensions of this form of learning. More importantly, researchers should examine novel methods of how to motivate e-learners. There are significant challenges when it comes to understanding the reasons for attrition of online learners, among them motivation. Scholars in the field of distance education have indicated a lack of research concerning the motivational needs of students (Gabrielle, 2003). In addition, a need exists for simpler approaches to motivating and retaining online learners (Huett et al.2008). These approaches for motivation should fit within the time restraints of the class and be systematically designed as e-mail messages to communicate to students in a timely manner (Gabrielle 2003; Huett et al., 2008; Keller & Suzuki, 2004).

Research has shown that motivation is an essential component of students' success in distance education and educational providers should be creative in their motivational methods (Crossley & Mubarik, 2002). According

to Koehler and Spatariu (2009) motivation plays a crucial role in promoting quality learning in distance education and it affects online discussion by producing "in-depth posting" (p.195). Thus, in order to provide effective education, the educational institutions should examine and investigate how to motivate and retain distance education students. Because motivation arises from the satisfaction of students, Sloan (n.d.) found when students are satisfied with taking an online course; retention of these students will increase considerably. In addition, students should be viewed as customers of the educational institutions, and their satisfaction is an important factor to the survival of any higher education entity.

Rational of the Study

The role of motivation is frequently overlooked in the area of distance education by educational providers (Koehler & Spatariu, 2009). Educators and educational providers need to become innovative in their motivational methods for their learners. Hence, the researcher chose to use e-mails as a method of increasing enthusiasm and delivering feedback to students who lack motivation in their online course to increase the odds of them accomplishing better results in the course. Koehler and Spatariu (2009) stated that "although some important prior research has investigated students' critical reasoning, it has not focused on a motivational perspective or addressed online contexts sufficiently" (p.198). Online learners perceive that there is a gap of communication and isolation between them and their instructors. Consequently, it is the purpose of this article to enrich the literature by examining the usage of e-mails to target the behavior of lack of motivation in e-learning students.

Traditionally, research in the field of online learning has focused primarily on group comparisons, which are studies comparing online students' attitudes and academic achievements to those of traditional classroom students. Many other studies analyzed e-learning using qualitative research methods. However, the majority of these studies have concluded that there are no statistically significant differences in their various outcomes (Bernard et al., 2004; Zhao, Lei, Yan, Lai, & Tan, 2005). Subsequent to examination of the literature review, it is apparent that there is a paucity of research using a single case study design with online learners. Therefore, the researcher decided to utilize this method of research in this article.

METHOD

Participants and Settings

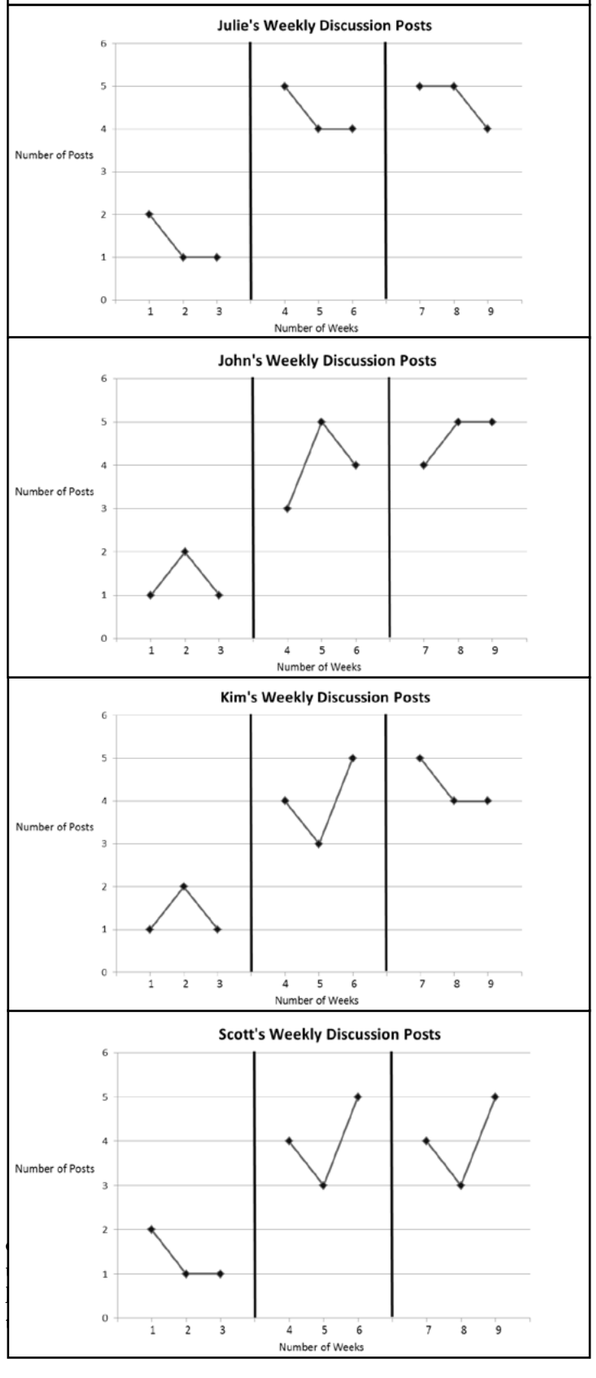
Four college students, two males and two females, taking an online course titled Human Resource Management (HRM) participated in the study. The selection of these students for participation in the study was based on observation by the instructor and the low grades that these students were earning in their discussion posts. The researcher, who was also the instructor, observed that there was a lack of motivation by these students in their online course. For three weeks, the researcher observed the students' number of discussion posts in order to quantify the number of postings for each week. Students were required to post a minimum of three posts per week. These postings involved answering the question(s) for the week and providing feedback to their classmates. The discussion posts needed to be constructive, informative, and thoughtful to other classmates. In table 1, the researcher summarizes the students' backgrounds and figure 1 shows students' performance for each week during the entire research investigation.

All of the students fit the definition of non-traditional students and were juniors and seniors majoring in business administration. In order to protect the students' identities, the researcher used pseudonyms and, for the purposes of this paper, they will be called Julie, John, Kim, and Scott. Even though these students were considered non-traditional students, they were full time college students. The software that the class used was Blackboard, which allowed the researcher to track the number of times that students logged into the class and the number of posts each student made. Because this was an online

Table 1
Student Characteristics

Name	Age	Gender	College Grade	Student Status	Challenging Behavior
Julie	31	Female	Junior	Full-time	Low discussion posts
John	29	Male	Senior	Full-time	Low discussion posts
Kim	25	Female	Senior	Full-time	Low discussion posts
Scott	31	Male	Senior	Full-time	Low discussion posts

Figure 1



Dependent Measures and Data Collection

The target behavior that the researcher wanted to increase was the number of posts students gave to their classmates. The three posts assigned in the course each week were to consist of one original post composed by each student and two responses to their classmates. The students in this study did not provide the required number of posts. Because of this, the researcher wanted to increase the number of occurrences of the targeted behavior for each of the participants in this study.

Data collection

The researcher collected data throughout the baseline, the intervention, and a second baseline phase after the intervention. Each of these three phases lasted for three weeks. From the time that the data were collected; the researcher logged online and accounted for the number of posts that each of these four students made. Based on one of the requirements for the class, students needed to post discussions that are considered constructive, informative, and thoughtful at a minimum of 150 words per discussion. To further illustrate how the data were collected, the study was divided into three parts; the first part was baseline, which took three weeks for observation of the students and recording of their number of posts; the second was intervention, which took three weeks; and the third was another baseline for three weeks to ensure that the intervention had an effect on the students' behavior.

Observer training

The observer was an online instructor. The observer training consisted of two steps. First, the observer learned the definitions of the target behavior and what the data collection system needed to look like. This included the recording system in order to quantify the number of discussion postings per student. Once the definitions and the method of collecting the data were learned and observed, the observer moved to the second part of the study. The second part of the training process was on the kind of intervention that the researcher would conduct. When all of these processes were learned, the observer began to observe and report of the targeted behavior by each student and report the findings.

Inter-observer agreement

There was only one observer, who was the researcher, so no agreement data were collected. However, if there were other observers, inter-observer agreement data would have been collected throughout the baseline, intervention, and the second baseline, which would be across all of the phases of the research. The independent observers would have collected the data with regard to the number of times the students posted in the weekly discussion threads. The observers would have recorded the observed behavior by each student in the study and attempted to find an intervention that would increase students' motivation, which would accordingly increase their persistence in the class.

Experimental Design and Intervention

An ABA design was used for this study. The design had three phases: baseline, intervention, and baseline. The target behavior identified would be addressed by using e-mail to communicate with students who were not motivated in their online course. The purpose of this study was to increase the number of posts for each student who was identified by the instructor/researcher in this study.

The ABA design was chosen because it allows the researcher to observe the differences the intervention made on the participants. The researcher would be able to observe the phases and the level of change from A, which is the baseline to B, which is the intervention, and going back to A to observe the level of change from the first baseline to the second baseline. The researcher believes that the ABA design is a more powerful and useful design than the ABAB design. The reason for this is that when researchers use an ABAB design, the researchers need to repeat the design again or use two interventions, so the true cause of the behavior change might not be accurately recorded or known to the researchers.

The research for this article spanned nine weeks. There were three experimental phases: baseline, intervention, and a return to the baseline. The three weeks for observation took place during the initial baseline, there were three weeks of intervention, and three weeks of baseline in order to observe if the behavior intervention made a change.

Experimental Procedures

Baseline

The researcher observed participants online on a daily basis. Every day, the researcher logged online at night and recorded the time and day that the students participated in the class. This way, the researcher was able to quantify the number of posts in the first week for each of the four students that participated in the study. In this phase, the researcher did not make any contact with the participants who were Julie, John, Kim, and Scott to change their number of posts for each week. What the researcher did in this phase was collect data for the baseline.

Intervention

This phase involved implementing the intervention for three weeks and the action of communicating with each student via e-mail was started. In the beginning of each week in the intervention phase, the researcher sent an e-mail informing students of the importance of participation in the discussions and how their participation weighs heavily in their final grades in the class. In addition, the researcher emphasized that participation in the discussions shows student engagement and dedication to the class. The e-mails were sent to each student separately early on Monday mornings. The instructor predicted that by sending individualized e-mails and keeping an open communication channel between students and their instructors, the motivation to perform well in class would most likely increase and so would their persistence in their online courses. The reinforcement for each week was another individualized e-mail praising the students for their hard work during the week.

Baseline

Following the three week intervention phase, the intervention was withdrawn and the participants were informed that they would not be receiving any more e-mails from the instructor/researcher regarding their online class. The researcher, in the last e-mail encouraged students to maintain their momentum in their course. This baseline lasted for three weeks. The main purpose of this phase was to ensure that there was no contact between the researcher and participants regarding their number of discussion posts in order to confirm that the intervention had an effect on students.

RESULTS

Baseline 1

Figure 1 displays the performance data of each participant. Julie made two posts the first week, and one post for the second and third week. John, on the other hand, started with one post for the first week and then made two posts the second week and made one post for the third week. Kim had the same number of posts as

John during the baseline phase. Scott made two posts for the first week and one post for the second and third week. The number of posts for each of them did not exceed the minimum requirement outlined in the syllabus.

Intervention

There was a marked increase in performance of the four participants for this study. During the intervention, Julie made five posts during the first week of the intervention week and maintained four posts in the second and third week of the intervention phase. John made three posts the first week; increased participation to five posts the second week and ended with four posts on the third week of the intervention. Kim's number of posts were four the first week, three posts the second week, and five the third week of intervention. The final participant in this study was Scott who started the intervention phase with four posts the first week, three the second, and five the final week. These results indicate that the intervention changed the students' behavior in the manner desired by the researcher.

Baseline 2

All four students maintained their performance at a level similar to that of the intervention phase. In this stage, the researcher did not make any contact with the students regarding the number of posts. In the first and second week of this phase, Julie made five posts and finished with four posts. During the first week of this phase, John made four posts and then maintained five posts for the second and third week of this phase. Kim made five posts in the first week of this stage, then maintained four posts for the second and third week of this phase. Scott, on the other hand, kept changing. He made four posts the first week. In the second week, he made three posts, and ended the phase with five posts.

Social Validation

Social validation data were obtained from the four participants. When the research was concluded, the researcher and the participants met to review the intervention and give their feedback. Julie and Scott mentioned that during the intervention they felt that the instructor/researcher was trying to stimulate them to become more active in their class. Kim, on the other hand, stated that online learners need the "extra push" from the instructor to keep them motivated and satisfied in order for students' retention to increase. John commented that "your words of encouragement inspired and motivated me to do better in class." All of the participants knew that they needed to do better, but had a difficult time with time management. Overall, the four participants reported a positive view of the intervention and recommended it for other classes.

DISCUSSION

The purpose of this present investigation was to examine the effects of communicating with e-learners using e-mails to increase their motivation and retention in their online courses. All of the students achieved the required level and maintained their performance for the duration of the intervention and the second baseline. The results showed overwhelmingly that the students responded to the intervention made during the fourth week of the study and the momentum continued during the intervention until week nine. Furthermore, the social validation data obtained from the participants were generally positive. Because there is a paucity of research regarding using e-mail as a tool of motivation and retention of e-learners, this study adds to the growing research literature in this area. In addition, single case study designs have been rarely used in the literature with e-learners and this study contributes to the body of literature for single case designs in the educational research field.

Using the ABA design is significant in that it enabled the researcher to test the effectiveness of the intervention. The researcher counted the number of posts for each of the participants for three consecutive weeks, and then introduced the intervention for another three consecutive weeks. Subsequent to collecting data for six weeks, the researcher followed the study for another three weeks to collect data to observe its effectiveness. It is apparent from the data shown (Figure 1) in the appendix, that the intervention made a difference in all of the participants' behavior. Moreover, the effect of the intervention remained effective on the participants three weeks after the intervention was made. These results confirm the power of communicating with students and indicates that following up with students is a valuable tool to increase their motivation and retention in their courses.

Despite the reported changes, a number of limitations warrant attention. First, given the small number of participants in this study, the findings are specific to those students and the target behavior. The researcher feels that additional research is needed to investigate the effects of the model on other target behaviors and students with various learning and support needs. In particular, multigenerational students might not respond to the intervention equally. Because of this, the researcher recommends reviewing and evaluating each of the three generations: Baby Boomers, Gen Xers, and Gen Yers who are currently students in higher education institutions. Second, generalization data were not collected. This is because the design of the study does not focus on generalization, but rather a

manipulation of a targeted behavior. Windharm (2005) mentioned that online posting is a generational phenomenon by a population that thrives in a social-networking environment and loves to be plugged in all the time.

The third limitation of the study is that no procedural fidelity data were collected. Although social validation was collected from the participants, the inter-observer agreement was not conducted as there was only one researcher for the entire project. Fourth, a further factor in the success of the study could have been that two of the four participants were senior students, which could have incentivized these students to get on track and finish their coursework without the intervention. This is only an assumption; therefore, future research should examine students at all levels within a college setting. Fifth, even though the researcher used ABA design for this study, other researchers should attempt to use other designs in studies such as ABC and other designs. Finally, the reported data suggested communicating with students by e-mail was effective in enhancing their motivation and retention; but this study did not look into the quality of the discussion posts and other variables by each of the participants. Consequently, the researcher recommends further studies using single case study design to focus on different variables of discussion posts such as the quality of student posts and feedback given to one another by students.

We (educators and researchers) must acknowledge that motivating and retaining learners should be a top priority in our educational institutions. Because of its importance, we should investigate new methods of motivating and retaining educational learners in general and more specifically, e-learners. The single case study designs are useful when attempting to change student behavior. Studies such as this one are a testimony to the effectiveness of the single case study designs. In addition, the potential of achieving a researcher's outcome is high, especially when it comes to enhancing learning, retention, and motivation of students.

There is no question that teaching online comes with many challenges in order to create and maintain a productive and caring online classroom environment. This kind of educational environment should engage all students to maximize active collaborative learning and interaction between students with each other and their instructors. It is important that higher education administrators and faculty members reach out to students who might be struggling in their online courses and show interest in students' education. This study attempted a new method of reaching out to those students who were struggling in their HRM online course.

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Faculty's Response to Globally Divergent Thinking in American College Classrooms: An Autoethnographic Reflection

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ABSTRACT

The paper is an autoethnographic reflection of my experiences as a graduate student in two Midwestern universities. I argue that although "internationalization at home" remains the only easily affordable route to bringing global knowledge to domestic students' doorsteps, higher education institutions are not effectively exploiting the advantage of large international student population to speed up the internationalization of their curricula in the U.S. The paper offers suggestions for designing a globally responsive pedagogy which is paramount to "internationalization at home."

According to the Association of International Educators (2012), there were about 764.495 foreign students enrolled in the U.S. institutions of higher learning in 2011-2012 academic year. These students and their dependents brought approximately $21.81 billion into the economy. Contrast the international student enrollment in the U.S. to 270,604 U.S. students who studied abroad for credit in 2009-2010 (International Institute of Education, 2011). As the U.S. higher education institutions experience this exponential increase in their international student population, their faculty is not doing enough to harness and leverage the former's perspectives to the benefit of the domestic student population, who, in most cases, may never travel abroad to learn those perspectives (Harrison & Peacock, 2010; Teekens, 2007; Wachter, 2003). There is a lack of cross-cultural competencies in graduates of many college disciplines which is attributed to college faculty's marginal ecumenical expertise (Boyle-Baise, 1996). Zeichner (1996) posits that "most of the academics who must be counted on to improve the preparation of teachers for diversity are as lacking in interracial and intercultural experiences as their students" (p. 138). As higher education's interest for international education grows, it is important for faculty members to become more globally and culturally responsive in their pedagogy (Gay, 2010; Ladson-Billings, 1995). International students bring a wealth of knowledge pertaining to politics, science, technology, and social studies in a way that if well exploited, it could have a multiplier effect on their host country's economy and livelihood (Ryan & Viete, 2009; Ladd & Ruby, 1999). Although they are coming to learn from us, we can also learn from them while they are enrolled in our classes. The overarching research question here is how do academics design and teach courses in a way that benefits both international and domestic students in terms of broadening their horizons and frames of reference?

Drawing from my personal experiences as a graduate student in two Midwestern universities, this paper foregrounds the importance of cross-cultural and global competence through globally responsive pedagogy. It is an autoethnographic reflection of my own experiences as an international graduate student and as an instructor of both international and domestic students in teacher education programs. Higher education, as it is often the case, is supposed to be a place where students acquire literacy skills that help them read the world better than people with no college education. Therefore, it needs to ensure that universities are producing well-rounded graduates who are ready for a globally competitive workforce.

SITUATION

Given that many faculty members remain unfamiliar with the literature pertaining to diversity and world cultures, they tend to evade or shun cross-cultural perspectives surreptitiously or highhandedly. After all, how can one expect them to utilize globally responsive pedagogy in their instructional practice when they are unfamiliar with the concept? In reference to cross-cultural incompetence of teachers, Howard (2006) concludes that they can't teach what they don't know. This paucity of knowledge about the concepts of culturally and globally responsive pedagogy has an adverse ramification on higher education faculty's curricular and instructional designs. It, sometimes, leads to their propensity to emit deficit thinking about their international students' academic abilities; thereby triggering advertent or inadvertent proclivity to assimilate and deculturalize them. When academics spar-

ingly draw from their international students to inform curriculum and instruction, the implicit message they are sending to the rest of the students is that the international students' knowledge is invalid and deficient (Ryan, 2005). U.S students already have enough of negative imagery about cultures that are not part of the American macroculture. Not exposing them to global perspectives only further reinforces their deficit perspectives about unfamiliar world cultures. A faculty's disregard of the international students' perspectives can only be to the detriment of the entire class given that reciprocal learning which is supposed to be endemic in college classrooms is short-circuited and teaching is relegated to one-dimensional way of knowing which is the instructor's.

In the graduate schools, I used to be the only international student from my continent in each of my classes. I was, sometimes, not only expected to speak for my country, but for the entire continent. Sometimes I was an extrovert in one class and an introvert in another irrespective of the class size. It all depended on professors' choices of readings and attitudinal responses to my perspectives on issues being discussed. I had taught French and English in secondary schools in my country of birth for eight years prior to immigrating to the U.S.; and upon arrival, I was volunteering in my children's school and was serving as a substitute teacher from time to time in a predominantly Latino public high school. So, I had a dual frame of reference to draw upon in class discussions pertaining to curriculum and instruction. In classes where I thought my perspective was valued, I was very engaged in class discussions and my peers would miss me whenever I missed a class for a conference. On the contrary, some of my professors who were not culturally and globally responsive would remember me as a person of few words in their own classes. It is worth stating that globally responsive pedagogy is preceded by cultural decapsulation. This explains why professors who are already versed with diversity issues are more likely going to be globally responsive than those who are not.

Making a case for globally responsive curriculum

With the digital revolution that sprang up in the later half of the 20th century, the world is fast becoming a global village. There is need for a revolution of human mentalities about cross-cultural knowledge in order to harness the socioeconomic benefits of a global village. Although there has been a spike in the study-abroad programs in Western universities, the scourge of cultural absolutism is impeding our ability to learn from other cultures. A ten-day "tourist" study-abroad (with no intense pre- and post-internship workshop) is marginal to gain any meaningful experience as to be able to reverse the negative information that students have been bamboozled into believing since they started watching TV images about those countries. On the contrary, students go to confirm the stereotypes that they had heretofore internalized about those places rather than to confront and correct them (Locke, 1997; Kagan, 1997).

Higher education needs to require cross-cultural competencies for all its future graduates as it is increasingly the case in many universities across the nation. Specific courses that meet the cross-cultural competency requirements need not be required only for Education Majors but for all students passing through higher education. Such courses need to be prefaced with the fundamental argument about transcultural awareness the necessity to be culturally relativistic when learning about other people. As an instructor of multicultural education, a good number of my prospective teachers has often frowned at the notion that successful teachers of culturally and linguistically different students make conscious efforts to educate themselves about their students cultures and home languages. They often wonder why they should learn about their English language learners" cultures when their families chose to immigrate to the United States. Some academics may have a similar, though unspoken, reason for being apathetic about globally responsive pedagogy. As Birnbaum et al. (2012) posited, when academics undermine international students' prior experiences, it can elicit a feeling of disconnection and disengagement in the students.

THE CHALLENGE

When I first enrolled in a graduate program in a university in Oklahoma, I had barely lived in the United States for two months. I was still very unfamiliar with American macro- and microcultures. I came to learn about my height in U.S customary units in a very degrading and humiliating way. In a test and measurement course, one of my professors, whom I would name Dr. Smith, wanted to show the class how to find the mean and mode in statistics. He decided to choose students at random to share their heights with the class so that he could find the mean of the students' heights. I happened to be the first student to be asked my height and I confidently uttered loudly "1 meter 77 centimeters." Dr. Smith spontaneously and disdainfully retorted "in feet?" I shamefully muttered "I don't know." In a completely dejected mood, he moved on to the other students who all provided him with the kinds of responses he wanted to hear: "I am 5 feet 6 [inches]," said one. "I am 5 feet 9," said the other. As he took down the peers' heights, I could decipher utter disbelief in him, from his facial expression, to have a graduate student who did not know his height.

Dr. Smith seemed oblivious with his patronizing attitude to the existence of the International System of Units or

metric system which, according to CIA Factbook, is used by almost every country in the world as their official system of weights and measures except the United States, Liberia, and Myanmar. If this were an IQ test question, I would have flung it. An aggregate of similar culturally biased questions would have earned me a place in a special needs class or lower track in some elementary and secondary schools. But would that be a fair assessment of my knowledge of my height? Granted that he did not know the conversion from metric system to customary units, he did not equally care to find out from the rest of the class. Or can we say to play it safe, he simply had to move on so as to avoid venturing into an unchartered territory fraught with unfamiliar knowledge? Assuming that this was the case, he failed to consider the extent to which his student's self-esteem would be adversely affected by his idiosyncratic reaction to what he does not know.

Little would Dr. Smith know that he subconsciously gave me a major assignment, which was to begin learning about the US customary units that same night at the end of his class. That humiliation led me to an independent study of US customary units; and I am proud to tout my bicultural skills in both systems of measurement today. Given that his response to my response was condescending and imperialistic, to say the least, I would assume that that incident was not a teachable moment to him as it was to me. He missed an opportunity to educate himself about the metric system as well as expand on his students' horizons and frames of reference. He ought to have found out whether any other student was knowledgeable about both systems of measurements. In the absence of a credible answer from the students, he could have given it as an assignment which would entail students to convert their heights into the metric system and share it with their classmates in the next class meeting.

STRATEGIES FOR CULTURAL AND GLOBAL RESPONSIVENESS IN COLLEGE TEACHING

Gay (2010) defines culturally responsive teaching as the application of a given cultural knowledge of diverse students as well as their prior experiences to inform teaching. I will define globally responsive pedagogy as an approach to teaching that involves leveraging worldwide funds of knowledge to design instructional and curricular materials in a given curriculum. One important way to prepare students for an interconnected world is to help them understand how the world works and why it works that way by infusing a plethora of perspectives into the curriculum.

Understanding world Englishes

Given that the degree of English language proficiency of college students, especially graduate students, determines their academic success in the U.S. and most other English-speaking universities around the world (Litowitz, 1993), academics would need to be proficient in the World Englishes to facilitate cross-cultural communication. They would also need to be proficient in World Englishes in order not to grade international students down on their papers on the basis of lexical and grammatical differences emanating from British English, which may be significantly dissimilar to American English. It is worth noting that owing to the legacy of colonialism, British English remains the most authoritative Standard English used in many English-speaking countries outside the United States. Thus, it is very likely that, a good number of international students studying in the U.S. are more versed with British English than American English, even when they are coming from non-English-speaking countries. For academics to circumvent confusion and optimize communication, it is important for them to familiarize themselves with other world Englishes, especially the British English, which is still more widely used around the world than the American English. Here are some examples of lexical differences between the two standards:

American English	British English
Labor	Labour
Learned (past tense)	Learnt (past tense)
Pants	Trousers
Gas	Petrol
Sidewalk	Pavement
Windscreen	Windshield
Truck	Lorry
Elevator	Lift

The list is not exhaustive; it is a mere snapshot of a long list of lexical differences between British English and American English.

In addition to the examples in the foregoing table, there are many socially, culturally, and geographically driven idioms that would not initially make sense to international students until they are explained. For example, in a statement like, "Ali has pushed his media literacy grant proposal to the back burner," there is a cultural assumption that the interlocutor, in addition to understanding the denotative meaning of the word "burner," is familiar with a four-burner stove which is mundane in U.S. households. Researching on the geographic and sociolinguistic backgrounds of international students is an important prelude

to designing instructions that respond to their diverse cultural and linguistic needs. For example, a student from Saudi Arabia who has never seen *snow* before may not be familiar with snow-related words like: *snowball, snowdrift*, *snowflake*, and *avalanche*. As Cardona et al. (2013) suggest unfamiliar and informal language usage such as slangs and idioms by American English speakers can contribute to abysmal miscommunication. To be a successful teacher of students from diverse linguistic and cultural backgrounds, faculty will need to make a conscious effort to learn about the background knowledge that their international students bring into the classroom for the benefit of all learners (Banks, 2002).

Funds of knowledge: Gathering cultural knowledge

Funds of knowledge is an ethnographic research method which involves a teacher gathering culturally and historically embedded bodies of knowledge and skills about students and their families to inform instruction. Moll et al., (1992) first used this technique in 1990s to study household and classroom practices in the Mexican-American working-class communities in Tucson, Arizona. The knowledge gained from the study by teachers helped inform them about the variability of what counts as knowledge and cognitive resources. The bodies of knowledge the teachers learned from observing these Mexican-American families was rich but quite remote from what they had hitherto considered as knowledge in their curricula.

Academics can embark in a similar process of learning about their international students' cultural knowledge and their ways of thinking and knowing through formal and informal meetings (Volet & Ang, 1998). Some of those events may start with international student orientation and continue with year-round events like international potluck, international day, or more personalized visits to their family events when possible. There is a lot of information that can be gathered through engaged conversations with international students and their families. Such information can help professors to become more globally responsive in their instructional practices. More deliberate exposures to international students in formal and informal contexts would likely help ameliorate faculty's global competencies given that such purposeful exposures can lead to better understanding of students' cultural backgrounds and prior knowledge in some subject areas relevant to faculty's specialties (Biggs, 1997). An awareness of students' prior knowledge could serve as a catalyst in mediating the overlap between prior (foreign) knowledge and new knowledge being exposed to in a U.S. classroom.

Designing a curriculum as "window and mirror"

As Style (1996) posited, "basic to a Liberal Arts education is the understanding that there is more than one way to see the world; hence, a balanced program insists that the student enter into the patterning of various disciplines, looking at reality through various "window frames" (p.39). In order to challenge our domestic and international students to think beyond their comfort zones, higher education courses need to be conceptualized from the "window and mirror" frames (Style, 1996). Mirror curriculum provides content that reflects one's life experiences and prior knowledge while window curriculum introduces one to unfamiliar content constructed from the perspective of the "other". Balanced curricular perspectives require introducing students to content materials that enable them to look through the window frames to see the other social realities that have heretofore been unfamiliar to them as well as see their own realities. Although students tend to do well when reading materials and class discussions mirror their past experiences, it is vital for them to see through the window frames in order to understand the realities of other people. To provide window and mirror experiences for both international students and domestic students, faculty needs to infuse global content materials into their locally designed courses. Currently, most U.S. liberal college course contents are representative of U.S. students' mirror frames while that same content serve as a window frame for international students. For more meaningful learning to occur, students are supposed to be exposed to both mirror (self) and window (other) frames. One simple way to go about this approach is to build choice in a course design by assigning common readings and choice readings (Sleeter, 2008). Common reading, in this case, entails general readings assigned to the entire class while choice readings offer the opportunity for students to propose readings from their own backgrounds. The combination of common and choice readings ensures that prior experiences are helping every student to make new knowledge more meaningful and unforgettable.

If Liberal Arts College course contents mostly mirror life experiences of our domestic students, then we are not preparing them for the increasingly globally competitive world economies. International students who start off college in the U.S. just as monocultural as their U.S. counterparts, are more likely to graduate with more bicultural skills, leaving their U.S. peers just as monocultural as they started off some years prior. The reason attributed to the cultural disequilibrium is that the international students are more likely to be exposed to the "window" curriculum which is a "mirror" curriculum to the domestic students. If both groups of students were exposed to window and mirror curricula, they would all graduate with a reasonable degree of multicultural and global skills. Inasmuch as students can be attracted to course contents that reflect their background experiences, they equally enjoy readings that talk about specific issues pertaining to societies that are foreign to them. As Christine Sleeter (2008) puts it, "Young people are often curious about those who differ from themselves (p.151)." Although they may, sometimes, not conclude that points of views of others are just as important as their own, continuous exposure to myriads of points of views can lay the groundwork for a more tolerant and respectful national and world citizenry. Helping international students adapt to the culture of U.S. education by way of accommodating their needs (Ladd & Ruby, 1999) is a laudable goal in itself but ensuring that there is a mutual exchange of knowledge between domestic students and international students should be the target for all academics. Thus, it is academically vital to involve domestic and international students in selecting some of the reading materials for a course (Sleeter, 2008).

A major benefit to a potential course content that is infused with window and mirror perspectives is that more international students could become more actively involved in class discussions. Language barrier is not generally the only obstacle to international students' voicelessness. Lack of mirror frames in the curriculum can also cause anxiety and can lead to apathy as well as lack of confidence to express oneself. It is very hard for these students to contribute in an academic discourse on a topic that is unfamiliar and unrelated to their past discourse as it was the case with me. Discourse in this context is a "plural set of cultural practices or culturally appropriate ways of thinking, believing, valuing, acting, speaking, reading, writing, and listening"(Li, 2010, p.42). Exposing the international students to a curriculum that also mirrors their experiences could be a springboard for them to venture into the "window" territory given that they develop assertive skills as they begin to draw from their personal (mirror) experiences to understand the "other".

Cognitive development is also fostered during class interactions that are beefed with mirror and window frames. Seeking to make meaning of the world should be a reciprocal process involving every student in a school setting. In this process, locutors and interlocutors seek to appropriate each other's words and ideas. Baktin (1981) refers to this process as "authoring the self". He argues that words are always half someone else's because they often carry embedded perspectives of interlocutors from which they were subconsciously appropriated. Thus, when students of various national backgrounds find themselves in one classroom, they have a lot to gain cognitively and linguistically if educators provide them the interlocking pavers to negotiate value systems and worldviews. Hence, it is critical for faculty to recognize the notion that they and their students may be products of different cultures with different worldviews resulting from different historical, religious, axiological, and epistemological exposures. Such recognition will help shape their judgment on what counts as knowledge and thus, should be included in the course syllabus.

CONCLUSION

Global competence is increasingly indispensable in this 21st century for academics. There are two main ways of achieving this global competence (especially in teacher education programs) which are "internationalization at home" (Teekens, 2007) and study abroad. However, the responsibilities of "internationalization at home" lie squarely in the hands of academics who have to deliberately conceptualize a globally responsive curriculum, as well as instruction, in every course that they are called upon to teach. A globally responsive professor will ensure that he or she is "using the presence of international students to see intercultural learning, by providing alternative perspectives and illustrative examples from other countries and cultures" (Harrison & Peacock, 2010 p.2). Ensuring intercultural learning, in this case, should neither only focus on the countries represented in the class nor should it be tokenized and superficialized by limiting a global curricular content to four F's which include: food, fashion, festivals, and folklore (Banks, 2002; Sleeter & Grant, 2002). Whether U.S. students choose to gain global competence through study-abroad option or not, their local college courses should be able to instill the global competence in them effectively.

If globally responsive pedagogy is not yet a common practice in many college classrooms across the country, it is as a result of lack of expertise in global issues on the part of the professors, as well as the absence of a purposeful inclusive planning that is suitable for onward pedagogic application in their respective syllabi. Every student can tell when their perspective is being marginalized either by their instructor or their peers. Ryan & Viete (2009) reported international students in an Australian university complained about domestic students tuning out when an international was speaking, "Sometimes...the Australians [in class] have not the patience to hear us, to stay and listen, to put some attention, while we must do this for them" (p.309). Another student who had experience teaching in her country of birth prior to embarking on her graduate studies in the U.S., had the feeling that no one cared about her perspective in class discussions.

As a matter of fact, universities and their faculty have to understand that a majority of students will not travel abroad to acquire international experience for many reasons ranging from lack of funds, lack of interest, to family

commitments. However, universities can invest more on faculty's research that is focused on international studies so that they can, in turn, bring that knowledge to every student through a globally responsive curriculum. There is no gainsaying that travel broadens the mind. Thus, research-oriented travels are likely to boost faculty's knowledge and skills about world issues as well as transform them into culturally and globally responsive pedagogues. Designing a curriculum that responds profoundly to global issues and international students' needs does help institutions of higher learning accomplish "internationalization at home" for their domestic students.

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Perceptions and Use of Learning Management System Tools and other Technologies in Higher Education: A Preliminary Analysis

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ABSTRACT

This study examines student views and use of technology in conjunction with university coursework. Results reveal that there is widespread use of Microsoft PowerPoint and certain learning management system (LMS) features; however, there are significant differences in views concerning the degree to which these LMS tools enhance learning based on gender. While students view podcasts positively, few download and watch these regularly. Whether frequency of podcast use is due to student inaction or other factors is uncertain, since most students disagree that professors adequately used podcasts.

INTRODUCTION

Today a variety of technology tools are available to help professors enhance teaching techniques. However, faculty adoption and mastery of these tools varies leaving questions about the popularity and reaction among students when the tools are integrated into pedagogy. Although many students find the use of technology in the classroom helpful, others may be frustrated if the technology is used infrequently or improperly. This study seeks to examine student views of emerging and more well established teaching technology tools. In particular, student views on Microsoft PowerPoint, podcasting, and use of a variety of functions/features within a learning management system (LMS) are explored. For this study the most commonly used LMS, Blackboard, is examined.

MICROSOFT POWERPOINT

PowerPoint is a valuable tool for classroom presentations that was introduced in 1987 and became part of the Microsoft Office suite in 1990 (Gaskins 2007). This presentation software has the ability to improve class participation and make time spent studying out of class more valuable. If a professor posts or emails PowerPoint presentations before the class meets, students have the opportunity to

review the slides ahead of time, allowing them to formulate questions pertaining to reading material in advance and come to class already having reviewed the content. PowerPoint can also increase the professor's preparedness and can help instructors stay on topic (Burke & James 2008), as well as create an active learning environment. PowerPoint presentations can also increase the efficiency of lectures by incorporating graphs to convey complex information (Bartsch & Corbern 2003), review questions pertaining to recently covered material, and/or incorporate the use of a Personal Response System (PRS). A PRS uses a hand-held clicker device to allows students to select an answer when a question is presented on the slide (Campbell & Mayer 2009). The system then tallies correct and incorrect answers and reveals the correct answer. Aside from using a PRS in the classroom to provide quick feedback, asking content-based questions helps students stay focused and reinforces new information as questions are answered correctly. Presenting a lecture via PowerPoint also makes it easier for a student to listen to the instruction and take notes at the same time. PowerPoint can be used to keep students focused with bullet points that describe the main ideas of the topics being discussed. This forces students to pay attention, but also provides guidance for the student if they begin to get lost during the discussion. Cornelius and Owen-DeSchryver (2008) recommend the use of PowerPoint presentations with selected words omitted on the slides. Copies of the slides are distributed in class and students must pay attention in order to fill in the missing notes (Giers & Kreiner 2009). Another benefit of using PowerPoint is that it can be uploaded to a LMS site or emailed to students. This may be especially useful for students who need to review difficult concepts, study for a quiz or test, or missed a class. Despite all of the benefits associated with the use of PowerPoint, there are also a number of caveats. While the use of PowerPoint can help improve student learning, the technology can have adverse affects. If the professor is poorly trained on how to use the computer or run a slideshow, it takes time away from teaching and causes frustration for the professor and students. Problems can also if professors read information from the slides, thereby creating a passive learning environment. Clark (2008) found that in the long run, this environment can lead to a decrease in students' class attendance (Strauss, Corrigan & Hofacker 2011). Slides with too many words or complex graphs can create a "sensory overload" for students (Strauss, Corrigan & Hofacker 2011) and slides using small font size can cause student frustration. For many years, one of the main concerns professors had about the use of PowerPoint was that it might take away from the student's creative thinking process. Other concerns include that students will have the impression that the lecture contains important information (i.e., the content on the PowerPoint slide) and unimportant information, the content not presented on the slides (Isseks 2011). Using slides can also encourage students to copy information without critically thinking or listening to the professor.

PODCASTS

While older technologies are still valid in this "new age of learning," the profile of the modern student has changed. Today, students are often balancing social, family, and work obligations while taking university courses. Butler and Pinto-Zipp (2006) find that these circumstances force students to alter their study habits to fit their busy life schedules (Saeed, Yang & Sinnappan 2009). In many cases, this includes incorporating new technologies into their studying and communication channels. Podcasting is a newer technology that is becoming increasingly popular among busy students and professors. Defined as "audio, video, text, and other media files that can be played on the computer or downloaded to MP3 players" (Sprague & Pixley 2008, p. 226), podcasts are also referred to as vodcasts (video podcasts) or enhanced podcasts that include hyperlinks or artwork. Podcasts allow students to view or listen to lecture content at any time or place, but also offer a number of benefits to faculty. Inexpensive software programs such as Windows Media Player allow a professor to record a podcast at little to no cost (Copley 2007). While some podcasts can last for hours, many are only 10-30 minutes in length (Zahay & Fredericks 2010), which may allow busy professors to record these in short timeframes and/or to start and stop recording as time allows. Creating a podcast for students to listen to prior to class can help brief a student on what they are going to learn in class that day (Copley 2007) or ease anxiety a student might feel about going to class (Chan & Lee 2005). Providing a podcast for students to listen to after class can help them review important topics or keep up with material if a class has been missed. Such short-duration podcasts typically do not serve as a substitute for going to class and generally do not discourage attendance (Guertin 2010). While it is helpful to be able to watch or listen to class material on the go, for some students it may not be as useful as reading written material (Chamillard & Karolick 1999) and visual learners may have a difficult time understanding concepts simply by listening to audio-only files (Saeed, Yang & Sinnappan 2009). Others raise concerns that complex math problems or elaborate graphs may be difficult to communicate via this technology (Guertin 2010). Another issue can arise if the podcasts is too long and the student stops listening part-way through the recording. Faculty and student resistance to this technology can be another drawback (McCrea 2010). A professor may refuse to incorporate podcasts into a course if s/he feels they do not have time to record podcasts (Blaisdell 2006) or fears

that the technology may be complicated. There is also the risk that the professor may not like the idea of hearing him/herself recorded (Robson & Greensmith 2008). Students may be resistant when it comes to incorporating podcasts as well. Although this technology is growing in popularity, students who have never listened to a podcast may hesitate when it comes to adding this new technology to their study regimes. Although podcasts are meant to be listened to on the go, this also means the student is multitasking while trying to listen to course information and may not be giving the podcast their full attention. Another possible negative issue is the time it takes to download the podcasts onto a portable device. If a student finds downloading a podcast to be too time consuming, s/he may not download the material at all (Copley 2007).

LEARNING MANAGEMENT SYSTEM (LMS)

The Learning Management System is an online program that serves as a learning and communication platform for students. Blackboard, Canvas, e-College, Moodle, and Sakai are examples of Learning Management Systems. Use of a LMS can help make professors' and students' lives easier by creating an online class setting. One of the best qualities of these systems is its ease of use for students and professors (Green, et al. 2006). Blackboard, currently the leading LMS, provides a platform for students to access course documents and supplemental course material out of class at their convenience (Bouhink & Marcus, 2006; Liaw 2008). This technology also creates a place for students to submit papers online, check grade, and download class documents. Blackboard even provides a feature that can check the paper for evidence of plagiarism (Preidys & Sakalauskas 2010). The Blackboard system presents students with many features beyond providing class notes, including an online chat function. This tool allows students to hold online chats with each other or their professor. The chat function is equipped with a digital whiteboard that allows the professor and students to write notes. At the end of the session, Blackboard gives the user the opportunity to save the chat conversation, as well as the images on the whiteboard (Larkin & Belson 2005). This tool can be helpful for students who may develop questions outside of class, those with learning disabilities, those too shy to ask questions in class, or those enrolled in large classes where time may not allow for all individual questions to be answered. The chat function allows students and professors the opportunity to communicate on a more personal and individual level. In addition to the chat function, Blackboard's technology also allows professors to post quizzes and tests online. After a student takes the quiz or test, the system grades the work and provides the student with immediate results (Liaw 2007).

While providing course documents via Blackboard serves as a way for students to have access to resources, research conducted by Cader and McGovern (2003) concluded that this practice may decrease the student's willingness to come to class (Green et al. 2006). A student may feel their time can be better spent elsewhere if all notes are provided online. Though possible benefits and deterrents to using these technologies have been elaborated, the purpose of this study is to examine current student views and behaviors related to commonly used teaching technology tools. These technologies were selected for the study because they represent a range of technologies used in the modern university classroom from the well established (PowerPoint) to more recent innovations (podcasts). The contribution of the study is a better understanding of student views concerning these technologies and how they are used by faculty and students.

OTHER TECHNOLOGIES–CLASSROOM RESPONSE SYSTEM (CRS), SCREEN CAPTURE SOFTWARE AND APPS FOR I-PADS

There are some newer technologies that are available to students to enhance their education experience. They are shown to have improved student participation in the classroom. According to Fries and Marshall (2006), CRS can have an impact on participation and interest among student thereby creating a positive learning environment. This is only possible as long as the CRM systems are in place. Brandsford et al. (2000) states that the CRS technology allows educators to transform the learning environment for the students. Researcher from different disciplines (Cadwell 2007; Fries & Marrshall 2006; Judson & Sawada 2002; Simpson & Oliver 2007: and Stowell & Nelson 2007) have concluded that CRS technology creates an interactive learning environment for the students. This interaction between the student and the professor contribute to the positive learning/teaching experience.

Limited research has been done on the impact of newer technologies like Screen Capture Software and Apps designed for I-Pads on student learning. As indicated earlier this study focuses on the more established technology tools like PowerPoint, Blackboard and Podcasting

METHOD

A paper-and-pencil survey was distributed to undergraduate and graduate students at a private university in Texas. Students were asked to complete a questionnaire describing their opinions and use of learning technologies such as Microsoft PowerPoint, podcasts, and tools within Blackboard in an academic environment. Questions focused on the use of these technologies in a university environment overall, rather than use of the technology in a particular

course. No incentive was provided for participating in the study.

RESULTS

Characteristics of the respondents are shown in Table 1. Of the 204 respondents, 53% were female. As expected, most students (80%) were in the 18-22 age range; representing a range of student classifications. Almost four out of ten (39%) used a LMS in four or more courses in the semester in which the data was gathered, and accessed the LMS 5 or more days per week (36%). Almost all (97%) reported having access to a MP3 player and many (64%) reported being likely to download and watch a podcast lecture, though only 22% had previously done so.

Table 1
Characteristic of Respondents (n=204)

Characteristic	%
Gender	
Female	53%
Male	47%
Age	
18-22	80%
23-25	12%
26-34	6%
35 & Higher	2%
Classification	
Freshman	20%
Sophomore	14%
Junior	25%
Senior	34%
Graduate	7%
Courses that use a LMS	
0 Courses	3%
1-2 Courses	34%
3 Courses	24%
4 & Above 39%	39%
Number of days per week you access a LMS	
0 days	5%
1-2 days	22%
3-4 days	37%
5 & above	36%
Access to a device that plays MP3s	
Yes	97%
No	3%
Download and watch lectures via Podcast	
Likely	64%
Unlikely	21%
Not sure	15%
Watched/listened to a Podcast provided by an Instructor	
Yes	22%
No	73%
Not sure	5%

Respondents were asked their opinions of the use of podcasts for learning and to rate statements about podcasts on a scale from 1 = strongly disagree to 7 = strongly agree. As shown in Table 2, students generally were positive about the use of podcasts, with the exception of "I would prefer to watch a podcast lecture than attend a lecture in class" which they rated 3.62 out of 7.

Respondents were also asked how much tools used within a LMS enhanced their learning on a scale from 1 = "not at all" to 7 = "very much". As shown in Table 3, students rated the syllabus, assignments, course materials, online tests/quizzes, email, announcements, the calendar, and learning modules highly; whereas chat/who's online and class roster were rated low in terms of enhancing learning. Male and female students' responses to these items were compared using t-test. Perhaps most surprising was the significant differences between the views of men and women, with women rating assignments, online tests/quizzes, e-mail, and learning modules significantly higher on enhancing learning as compared to male students.

Students were also asked how frequently they used each LMS tool on a scale from 1 = "rarely use" to 7 = "frequently use". As shown in Table 4, the tools most frequently used were assignments, e-mail, course materials, the syllabus, announcements, online tests/quizzes, and the calendar. Tools used infrequently were podcasts and chat/who's online.

Table 2
Opinions of Podcasts for Learning

Opinion	Mean
I am better able to effectively listen to the professor's lecture than attend a lecture in class.	4.99
Podcasts would be a very good way to review material in quantitative courses such as statistics or accounting.	4.96
Podcasts would be a very good way to review class material.	4.94
Podcasts would be a very good way to review material in theory-based courses such as management or marketing.	4.92
I do not have time to listen to podcasts in addition to going to class and listening to the professor's lecture.	4.13
I would prefer to watch a podcast lecture than attend a lecture in class.	3.62

Table 3
Perceptions of Learning Management System Tools for Enhancing Learning

How much does each of the following tools in your course/learning management system enhance your learning?*	Male mean	Female mean	p-value
Syllabus	5.77	5.85	.709
Assignments	5.40	5.74	**.039**
Course Materials (PowerPoint or readings)	5.34	5.46	.592
Online tests/quizzes	4.91	5.44	**.027**
E-mail	4.76	5.27	**.020**
Announcements	4.75	5.10	.120
Calendar	4.56	5.02	.114
Learning Modules	4.45	5.04	**.029**
Media Library	4.05	4.17	.685
Threaded Discussion	4.06	4.19	.667
Web Links/ webliography	3.98	4.26	.323
Podcasts	3.94	3.76	.616
Class Groups	3.81	4.38	.056
Class Roster	3.45	3.60	.595
Chat/who's online	3.14	3.43	.316

*Scale of 1-7 with 1 being "not at all" and 7 being "very much"

Table 4
Frequency of Use of Learning Management System Tools

How frequently do you use each course or learning management system tool?*	Mean Score
Assignments	5.98
E-mail	5.67
Course Materials (PowerPoint or readings)	5.63
Syllabus	5.58
Announcements	5.05
Online tests/quizzes	4.97
Calendar	4.33
Learning Modules	3.92
Class Groups	3.79
Threaded Discussion	3.41
Web Links/webliography	3.39
Media Library	3.23
Class Roster	3.03
Podcasts	2.92
Chat/who's online	2.58

*Scale of 1-7 with 1 being "Rarely Use" and 7 being "Frequently Use"

Lastly, students were asked their views of professors and their use of technology. Students rated statements on a scale from 1 = "strongly disagree" to 7 = "strongly agree". As shown in Table 5, students agreed that PowerPoint files should be posted prior to a class lecture (5.63), that professors respond to e-mails in a timely manner (5.13), professors are technology competent (4.60), professors post grades in a timely manner (4.33), and professors adequately use the LMS (4.29); however, they disagreed that professors rely on PowerPoint too much (3.72) and adequately use podcasts (2.17).

Table 5
Professors & Use of Learning Technology

Professor Use	Mean Score
PowerPoint files for a class lecture should be posted prior to that class lecture.	5.63
Professors respond to e-mails in a timely manner.	5.13
Professors are technology competent.	4.60
Professors post grades in a timely manner.	4.33
Professors adequately use the course/learning management system.	4.29
Professors rely on PowerPoint too much	3.72
Professors adequately use podcasts	2.17

*Scale of 1-7 with 1 being "Strongly disagree" and 7 being "Strongly agree"

DISCUSSION

These preliminary results reveal that students hold positive views toward technology tools, use them frequently, and believe that they enhance learning. Females, more than males, seem to believe that some of these technologies such as online tests/quizzes have a positive impact on learning. Future research should explore differences based on other demographic characteristics such as age and ethnicity.

Of the tools explored in the study, podcasting is a newer technology and students appear to be familiar and receptive to its use. Professors are not perceived as adequately using the tool which suggests that training may be needed. This finding may also imply that students may be better able to discern technology competency related to podcasting due to their familiarity with it outside class. . While publishers often provide instructional materials such as PowerPoint slides to accompany a book adoption, or an institution may create a campus-wide template for the LMS, or provide instructional designers to work with faculty in order to effectively set up a course within Blackboard, no such third party currently provides custom podcasts. So, there is perhaps a greater burden on faculty to master podcasting on their own if the technology is used. This may also present a market opportunity for textbook publishers to offer podcasts as perhaps one of the instructional materials that would accompany a textbook adoption.

While this study should be viewed as a preliminary examination of these topics, the findings do reveal significant differences based on gender and suggest that technology tools are widely embraced by students, perceived as useful, and faculty are evaluated on their ability to adequately use them. Future research focused on gender and other group differences is encouraged. Implications of these findings are important as it relates to providing teaching tools that enhance learning for all groups of students.

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Application of the Shortened Version of the SOCO Scale in a Personal Selling Class

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ABSTRACT

The original SOCO Scale was reduced to 10 items by Thomas, Soutar, and Ryan (2001). The author conducted a pretest and a posttest in his Personal Selling class during the Fall 2009 semester. Significant differences by gender, student sales experience and family member in the sales field were identified. The author once again pretested the shortened scale in his Spring 2010 Personal Selling class; however, spousal health problems derailed the planned post-test. Significant differences by gender and student sales experience were found. Paired t-test findings and comparison of the two data sets data are also addressed in this paper.

INTRODUCTION

The Sales Orientation/Customer Orientation (SOCO) Scale was developed by Saxe and Weitz (1982) as a tool to measure the degree of sales versus customer orientation in salespeople. The scale has been tested and applied, in part or in whole, in many studies over the years (e.g., Boles et al. 2001; Brown, Widing and Coulter 1991; Cross et al. 2007; Dunlap, Dotson and Chambers 1988; Jaramillo et al. 2007; Keillor, Pettijohn and d'Amico 2011; Kelley and Hoffman 1997; Pettijohn, Pettijohn and Parker 1997; Rozell, Pettijohn and Parker 2004; Tadepalli 1995; Williams 1998).

Concern has been expressed about possible respondent fatigue and acquiescence bias with the use of the 24-item SOCO Scale. This led Thomas, Soutar and Ryan (2001) to develop a 10-item shortened version of SOCO. They concluded that "using the reduced ten-item set would lose little information" (p. 67). Periatt, LeMay and Chakrabarty (2004) tested the shortened version and found support for its use, noting "it is both parsimonious and effective" (p. 49). However, some researchers have urged caution in the reduction-in-items process (see Panagopoulos and Avlonitis 2008, p. 376; Franke, Rapp and Andzulis 2013).

The purpose of this research was to test the applicability of the shortened version of the SOCO Scale in an academic setting. One marketing professor tested the full version of SOCO in a series of studies in his small personal selling classes over ten years ago, producing some interesting findings (see Totten 2001, 2002a, 2002b, and Totten et al. 2003). Using that professor's methodology, this author tested the shortened version in his Fall 2009 personal selling class and got the pretest done in his Spring 2010 class before family health problems prevented the posttest from being completed. The null hypothesis was: No increase in customer orientation of the students over the course of the semester (pretest scores = posttest scores). The results of these studies are reported in this paper.

LITERATURE REVIEW

The SOCO Scale as developed by Saxe and Weitz (1982) has come under some criticism over the years. One issue is that researchers have usually assessed customer/sales orientation "from the perspective of the firm in contrast to individual performance" (Wachner, Plouffe and Grégoire 2009, p. 34). Franke and Park (2006) conducted a meta-analysis and concluded that "customer-oriented selling does not consistently lead to sales or other results that managers value, because its effects on manager-rated and objective performance are nonsignificant" (p. 700). Schwepker (2003) also criticized the scale, noting that a sales orientation will help salespeople meet outcome-based performance measurements, at least in the short term. Using the shortened version of SOCO along with performance and selling skills scales, Wachner, Plouffe and Grégoire (2009, p. 40) found that, to achieve performance goals, "the salesperson must have both a customer orientation and the requisite selling skills." "If a salesperson has low selling skills (. . .), they perform better by applying a pure sales orientation" (p. 40). Though they used the shortened version, they did not focus on how well it worked as a scale. Bagozzi, et al. (2012) also tested the scale and substituted three scale items that they said worked better (p. 642). A review of the literature did not find any research study that applied the shortened version in the academic setting, like Totten (2001, 2002a, 2002b; Totten, et al. 2003) had with the traditional SOCO Scale.

FALL 2009 METHODOLOGY

Following the lead of Totten (2001), the author developed a one-page questionnaire around the 10-item shortened scale version, plus three demographic questions (gender, student's sales experience, and family members' sales experience). The questionnaire began with an introductory paragraph of instruction that was originally used by Saxe and Weitz (1982) and modified by Martin, Kimball and Bush (1998). The latter added the phrase, "or, if you have no sales experience, the proportion of customers with whom you believe it would be appropriate to act" for their use of the scale in an academic setting (Martin, Kimball and Bush 1998, p. 11). Five of the 10 items were reversed-scored so that a score of 9 would consistently mean the item is "True for ALL of your customers—ALWAYS."

The students enrolled in the Personal Selling class at a southern regional state university were asked to complete the survey on the first day of class, following the procedure used by Totten (2001). A sheet of paper with numbers from 1 to 26 was given to one student along with an envelope. The author left the room after asking the student to have the students self-assign themselves to the numbers on the sheet of paper. Once all the students had written down their names, the student in charge folded the sheet of paper and sealed it in the envelope. Twenty-five students turned in surveys that day. At the end of the semester (early December), the students once again were given the questionnaire to take (the posttest). The author left the room after instructing a student to open the envelope and remind the classmates about what number each of them had. Both times the students wrote the numbers on the questionnaires. This would allow pairing of pre and post questionnaires while maintaining anonymity. For coding purposes only, the author used the list of names to mark a fourth demographic code on the forms – student major. The list was then destroyed. Twenty-three students took the posttest.

FALL 2009 RESULTS

Fourteen women and eleven men students participated in the pretest. Two students didn't take the posttest in December. Sixteen (64%) reported having some degree of sales experience. Thirteen (52%) indicated that family members had some sales experience. Eleven students (47.8%) were marketing majors and another seven (30.4%) were management majors. The Personal Selling class is an upper level marketing elective. Major was subsequently recoded into marketing and all other business majors. No significant differences were found among the demographics at $\alpha = .05$ level.

As researchers had done before, the reliability of the shortened-version of the SOCO questionnaire was assessed for both measurements using Cronbach's Alpha. The pretest instrument had a coefficient alpha of .746 (n=25) and the posttest instrument had a coefficient alpha of .760 (n=22; one student didn't mark a response for item eight). Both reliability measures indicated an acceptable degree of internal consistency according to Nunnally (1978).

Total scores for the 10 items on the pretest instrument ranged from 48 to 88 (out of the high score of 90), while total scores for the posttest ranged from 58 to 90. The mean pretest total score (n=25) equaled 70.56 with a standard deviation of 9.12, while the mean posttest score (n=22) equaled 75.39 with a standard deviation of 8.813. The apparent improvement in scores from pretest to posttest was significantly different based on a paired t-test of the means ($t = -2.695$, $p = .014$).

Means were calculated for the pretest and posttest scale items and are shown in Table 1. All mean scores improved from the pretest to the posttest, with four items having the largest improvement. Independent t tests were conducted on both sets of means for gender, sales experience, family member in sales, and major, using $\alpha = .05$ level.

Female students had higher posttest mean scores than their male counterparts for "It is necessary to stretch the truth in describing a product/service to a customer" (7.64 vs. 5.89, $t = 2.185$, $p = .04$) and "I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy" (7.36 vs. 5.00, $t = 2.647$, $p = .015$). Several posttest scale items were statistically significant by whether the student had any sales experience or not, with students having experience recording higher scores for: "It is necessary to stretch the truth in describing a product/service to a customer" (7.87 vs. 5.25, $t = 2.868$, $p = .021$, equal variances not assumed), "I offer the product/service of mine that is best suited to the customer's problem" (8.4 vs. 7.5, $t = 2.385$, $p = .027$), and "I try to find out which kinds of products or services would be most helpful to customers" (8.60 vs. 7.62, $t = 2.594$, $p = .017$).

Turning to those with or without family members in sales, one pretest and one posttest scale items were significantly different. Those with family members in sales rated "I try to find out which kinds of products or services would be most helpful to customers" higher (pretest, 8.69 vs. 7.75, $t = 2.589$, $p = .016$) while rating "I paint too rosy of my products/services, to make them sound as good as possible" lower (posttest, 5.62 vs. 7.30, $t = -2.146$, $p = .044$) than their classmates who did not have family members employed in the sales field. Finally, only one pretest scale item was significantly different by major: "I try to figure out what a customer's needs are." Marketing majors rated this item higher than did all other business majors combined (8.73 vs. 8.00, $t = 2.185$, $p = .045$, equal variances not assumed).

Table 1
Pre and Post Mean Scores for the shortened-version SOCO Scale Items

Scale Item	Pre	Post
I paint too rosy of my products/services, to make them sound as good as possible.*	5.12	6.35
I try to figure out what a customer's needs are.	8.28	8.48
It is necessary to stretch the truth in describing a product/service to a customer.*	6.72	6.96
A good salesperson has to have the customer's best interest in mind.	7.56	8.15
I try to sell as much as I can, rather than satisfying customers.*	7.08	7.35
I offer the product/service of mine that is best suited to the customer's problem.	7.88	8.09
I make recommendations based on what I think I can sell and not on the basis of customers' long-term satisfaction.*	6.52	6.57
I take a problem-solving approach in selling products or services to customers.	6.96	7.73#
I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy.*	6.20	6.43
I try to find out which kinds of products or services would be most helpful to customers.	8.24	8.26

*Reverse scored. A score of 9 = True, always. #n=22, all other post n=23, pre n=25.

Paired t-tests were conducted on the scale items, matching each student's pretest responses with his/her posttest responses. While two marginally significant differences were observed, only one pretest-posttest difference was statistically significant at $\alpha \leq .05$. Students' mean score improved over the semester for the reverse-coded item, "I paint too rosy of my products/services, to make them sound as good as possible" lower (5.22 vs. 6.35, $t = -2.375$, $p = .027$, n=23). Given the small sample size, the Wilcoxon Signed Ranks Test, the nonparametric equivalent of the paired t-test, was also used. It confirmed the significant finding for the first scale item. The sum of ranks were 56.50 (four negatives) and 174.50 (17 positives, two ties), and $Z = -2.082$ ($p = .037$).

SPRING 2010 METHODOLOGY

The same questionnaire was used in the author's Spring 2010 Personal Selling class. The students were asked to complete the survey on the first day of class (pretest), following the same procedure used the previous fall semester. A sheet of paper with numbers from 1 to 39 was given to one student along with an envelope. The author left the room after asking the student to have the students self-assign themselves to the numbers on the sheet of paper. Once all the students had written down their names, the student in charge folded the sheet of paper and sealed it in the envelope. Thirty-eight students who were present that first day turned in surveys. The author expected to distribute the questionnaire again at the end of the semester (posttest); however, the author's spouse had major heart-related health problems and the course, along with others, was converted to online (referred to as web hybrid at the university). By the time the author finished dealing with how to tape and upload sales presentations, grade them, and give the final, the posttest went by the wayside (and a fourth demographic, major, was not identified).

SPRING 2010 RESULTS (PRETEST ONLY)

The class was evenly divided by gender, with 19 men and 19 women. Twenty of the students (52.6%) reported having had sales experience, and 21 (55.3%) reported having a family member who had worked in the sales field. There were no significant differences among the demographic variables.

As in the previous term, the reliability of the pretest questionnaire was assessed using Cronbach's Alpha. The pretest instrument had a coefficient alpha of .644 (n=36), which does not indicate a strong degree of internal consistency according to Nunnally (1978). Franke et al. (2013) warned that using reduced scales may result in inconsistency in reliability and content validity (Table 1, p. 324). This appears to have happened between the two studies. Total scores for the 10 items on the pretest instrument ranged from 47 to 85 (out of the high score of 90). The mean pretest total score (n=36) equaled 65.72 with a standard deviation of 8.847. Pretest mean scores are reported in Table 2.

Table 2
Pretest Mean Scores for the Shortened-Version SOCO Scale Items

Scale Item	Pre
I paint too rosy of my products/services, to make them sound as good as possible.*	4.89
I try to figure out what a customer's needs are.	7.82
It is necessary to stretch the truth in describing a product/service to a customer.*	5.54
A good salesperson has to have the customer's best interest in mind.	7.58
I try to sell as much as I can, rather than satisfying customers.*	6.26
I offer the product/service of mine that is best suited to the customer's problem.	7.38
I make recommendations based on what I think I can sell and not on the basis of customers' long-term satisfaction.*	5.50
I take a problem-solving approach in selling products or services to customers.	6.89
I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy.*	5.47
I try to find out which kinds of products or services would be most helpful to customers.	7.82

*Reverse scored. A score of 9 = True, always.

The pretest mean scores were subjected to independent t-tests to determine if any scales items were significantly different by each demographic variable. No significant differences were found for family member in the sales field. Female students rated one item, "A good salesperson has to have the customer's best interest in mind," higher than did male students (8.05 vs. 7.11, t = 2.027, p = .05).

Two scale items and the overall mean score were significantly different by students' sales experience. Students with sales experience rated "I offer the product/service of mine that is best suited to the customer's problem" (7.84 vs. 6.89, t = 2.245, p = .031) and "I try to find out which kinds of products or services would be most helpful to customers" (8.30 vs. 7.28, t = 2.852, p = .007) higher than did students with no sales experience. Those with sales experience also had a significantly higher overall mean score (69.17 vs. 62.28, t = 2.506, p = .017).

COMPARISON OF THE TWO PRETESTS

Since the same 10 items were used in back-to-back semesters, the pretest scores and the overall mean scores of the two semesters were compared statistically. While three marginally significant scale item differences were found, only one Fall-Spring difference was statistically significant at $\alpha \leq .05$, the overall mean scores. Students in the Fall 2009 course had a statistically higher score than did those in the Spring 2010 course (70.40 vs. 65.72, t = 2.015, p = .048). One wonders what might have caused this drop-off. The classes are different, with different students obviously. The spring class was larger, which may have had some effect. There may also have been more non-marketing majors in the class and/or more students without sales experience or having family members who worked in the sales field. The fact that the data is being analyzed three years later, due in part to the author's own health problems doesn't help with memory.

Score differences by gender and sales experience yielded some interesting results. However, no differences by family member in sales were found. Female students across both classes, rated one item, "A good salesperson has to have the customer's best interest in mind," higher than did male students (8.09 vs. 7.00, t = 2.823, p = .007, equal variances not assumed) and their overall mean score was also higher (70.10 vs. 65.10, t = 2.202, p = .032).

Three scale items and the overall mean score were significantly different by students' sales experience. Students with sales experience rated "I try to figure out what a customer's needs are" (8.36 vs. 7.52, t = 2.492, p = .017, equal variances not assumed), "I offer the product/service of mine that is best suited to the customer's problem" (7.86 vs. 7.22, t = 2.059, p = .044) and "I try to find out which kinds of products or services would be most helpful to customers" (8.39 vs. 7.44, t = 3.282, p = .002, equal variances not assumed) higher than did students with no sales experience. Those with sales experience also had a significantly higher overall mean score (70.24 vs. 64.37, t = 2.606, p = .012).

LIMITATIONS

One major limitation is the lack of a posttest for the Spring 2010 class. No assessment of improvement in customer orientation can thus be made. The inconsistency in the scale reliability from one semester to the next is also a limitation and a concern about the scale itself. A third weakness deals with the issue of "borrowed" scales; applying scales developed for use in one setting in another setting (sales field to academia), as noted by Engelland, Alford and Taylor (2001). Fourth, the lack of controls for other possible explanatory factors is a limitation. Factors that could have been taken into account include type of sales experience (B2C vs. B2B), length of sales experience, and impact of the major sales presentation project, grades, ethnicity, and professor's focus on customer orientation throughout the term. Then there is the possibility of social desirability bias, in that the students may have responded in the way they felt the professor expected them to respond, instead of providing their true beliefs.

DISCUSSION

It was good to see overall improvement in the scale item mean scores. There were some gender differences, with female students indicating a higher customer orientation than male students did. There also seems to have been a positive impact on customer orientation for those students who have had sales experience. Having family members in the sales field apparently rubbed off on some of the students in the Fall 2009 class, leaving them more customer oriented.

Future research should first begin with a tracking of more factors, e.g., ethnicity, impact of grades, impact of projects, and impact of speakers, on the measurement of customer orientation using the shortened version. Using the shortened version in multiple sections of Personal Selling at larger schools would also be beneficial. This would allow one to measure the effect of class size and professor as well. It has also been suggested that perhaps giving the survey a third time, during the middle of the semester, might also be beneficial (Totten, et al. 2003, p. 153).

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ASSESSMENT GONE WILD: PRACTICE WHAT YOU TEACH

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ABSTRACT

Assessment of learning has become very important for government, universities and accrediting agencies. In this article, two variables are examined, leadership and teamwork, in the context of a survey used by one mid-south university for assessment purposes. This survey demonstrates the problems that arise when the sequential steps of the research design process are not followed. I also offer suggestions on how to avoid mistakes during the design process for assessment of learning.

INTRODUCTION

Universities today are increasingly accountable to many stakeholders. The government, accrediting agencies, and parents expect assurance that students are learning what they need in college to be successful in the workforce (Liu, 2011). Assessment of learning in higher education provides information to help universities focus in on problems such as teaching quality and student learning outcomes (Fletcher, et. al., (2012). Assessment also provides information to outside organizations on specific areas of interest. Suppose companies require good written communication skills. Students graduating with this skill will be available to fill the employment needs of the organization. Sponsoring companies benefit through available labor, universities benefit by placing more graduates in jobs, and students benefit because they learn the skills necessary to be successful on the job. Two important skills organizations request of MBA graduates is leadership and teamwork.

As student learning outcomes become even more important in the future, we will see more committees assigned the task of measurement design to assess skills such as teamwork and leadership. Rather than going to experts, this goal may be given to committees of appointed members with little or no knowledge of the variables to be measured. Additionally, they may be uncomfortable setting standards and/or analyzing data. With intensified teaching, service and publication demands, assessment is sometimes seen as a project to be conducted for the sake of accreditation. The result is the measurement of the wrong variables and the collection of useless data.

The purpose of this paper is twofold. First, two variables are examined, leadership and teamwork, in the context of a survey used by one mid-south university for assessment purposes. This survey demonstrates the problems that arise when research designers do not follow the proper methodology. Years of collecting data can all be for naught. Second, I will offer suggestions on ways to avoid this situation, hopefully helping faculty with techniques to improve their own assessment techniques.

RESEARCH DESIGN

The seven steps identified in the research design process are as follows:

1. Identify the research problem
2. Conduct a review of the research
3. Specify the purpose of the research
4. Determine the problem and develop the hypothesis
5. Data collection
6. Analyzing and interpreting the data
7. Reporting and evaluating the results.

The first step of the research design process is to identify the problem. The question in our case was "do our MBA students graduate with leadership and teamwork skills"? A committee was appointed by the college dean. Of the faculty serving on the committee, only one person was teaching management, a junior faculty with a degree in production.

While putting so much stress on a junior faculty was unfair, it was also unwise. Although working hard to complete his task in a timely manner, minimal research was conducted on the theoretical basis for the items. To demonstrate the lack of face validity, a brief literature review of leadership and teamwork follows.

Leadership

Being able to influence others to perform is the key to leadership. Two major types of leaders are discussed in management literature, transaction and transformational. According to the lead researchers on this topic, transformational leadership processes may align followers' work-oriented values with those of the greater group or organization (Bass et. al., 1987; Burns, 1978; Conger & Kanungo, 1988). Transactional leaders perform more often in the background of the company. They are concerned with day-to-day operations and maintaining status quo. They use legitimate, coercive, and reward power more than other types. Transformational leaders are at the center of the organization, mostly leading through expert and reference power. They look forward to the future of the organization and develop a vision that others also follow. Transformational leaders possess charisma and are able to simply be supportive rather than directive when the situation allows (Hersey & Blanchard, 1984). There is a religious-like motivation that the leader is able to instill in the employees, whereas, the transactional leader appeals to employees' self-interests rather than raise the levels of morality and motivation (Burns 1978).

Leadership studies often focus on a top ranking corporate officer. One will find leaders in all areas and positions. They may be formal leaders, such as those appointed by the organization. But they can also be found in informal settings, such as friendship or interest groups. Leadership qualities can trickle down through layers of the hierarchy. In fact, the relationship between the leadership style of the person in charge and the operating employees may be irrelevant. It may be the immediate supervisor's leadership behavior that influences success rather than the person in charge of the project (Bass and Avolio, 1994).

One example of a pre-existing scale that might be used in place of developing a scale is the Peer Leadership scale developed by Taylor and Bowers in 1972 (Cook, Hepforth, Wall, & Warr, 1981). This instrument has been cited and validated repeatedly in leadership literature. It consists of an 11 item scale rated on a continuum scale from 1 to 5. The dimensions of the scale are support, goal emphasis, work facilitation, and interaction facilitation. The next section of this paper examines the second dimension of interest, teamwork.

Teamwork

The definition of teams originated in the 1980's. While the terms "work team" and "work group" are sometimes used interchangeably (Hackman, 1990), especially theoretically, they are very different variables (Katzenbach & Smith, 1993). A team has a purpose outside itself. Members gain their identities from the purpose of the team and their commitment to the goal, while they are also accountable for the task (Rowland, 1989). A group, in contrast, serves a common purpose usually relating to wider society. The National Association of Professional Women (NAPW) is a group. Their mission is to promote awareness, networking, and career building for women. However, they do not all share the same goal outside of the group's activities. One may be a member for the social benefit, while another may join to find business opportunities. Group members are not accountable for the success of NAPW in a way that team members are accountable for the service or product they produce. Thus, group members show less commitment to the goal than team members (Rowland, 1989).

In 1993, Katzenbach and Smith published an article in *Harvard Business Review* in which they described the difference between groups and teams (See Table 1).

Table 1
Group vs. Team Characteristics

Group	Team
Strong leader	Shared leadership
Individual accountability	Mutual accountability
Same purpose as organization	Team defines specific team purpose
Individual work products	Collective work products
Meeting efficiency	Open-ended discussion and problem-solving
Measures effectiveness indirectly	Measures effectiveness directly by results
Discusses, decides, delegates	Discusses, decides, and does real work together

Assessment Instrument

I recently served on a sub-committee for an assurance of learning committee. My task was to analyze data that had been collected from seniors in a graduate MBA class. The analysis intent was to prove graduates' success with team and leadership skills. Immediately upon examination of the survey items, I began to doubt the validity of the instrument. After three years of collecting data, the surveys being analyzed held no face validity (See appendix for items). The variables and outcomes of the analysis are further explored in the next section of this article.

ANALYSIS

To assess leadership and teamwork, we surveyed students from senior graduate classes from 2009 through 2011. (See Appendix for Survey Items). The instrument was presented to students at the end of the semester, after participation in four to five member teams during one semester. Each student was asked to rate themselves and each member of their team with regards to: attendance and participation in meetings, the quality and quantity of members' work, the professionalism of members, and the resilience, or positive attitude, to the project demonstrated by members. See Table 2 for the descriptive statistics of the data. The range of all items is from one to three with the exception of Quantity. No student reported lower than two for this question. All averages are above 2.75 on a scale of one to three. Reliability was estimated using Cronbach's alpha at .73.

Table 2
Descriptive Statistics

	Min.	Max.	Mean	Std. Deviation
Attendance	1.00	3.00	2.8924	.32478
Quality	2.00	3.00	2.9058	.29272
Quantity	1.00	3.00	2.6547	.52166
Resilience	1.00	3.00	2.8700	.35022
Professionalism	1.00	3.00	2.9417	.25329

The percentage response for each participant is as follows. The scores above an average of 2.7 made up the majority of responses at 82.1 %. The second group at 2.6 made up 10.3%, while only 3.1% scored their team members at 2.40. Data collection resulted in 223 usable responses. To analyze the data we used SPSS 20.

Two items were used in our study to measure leadership. The first item was named resilience and asked about cooperation and remaining positive during disagreements. The second item was called professionalism and asked about the respect for members of the team. Neither of these items asked about influence. There was no face validity that these questions measured leadership skills in our students.

The items used to measure teamwork in our study are attendance and punctuality, work quality, and work quantity. According to Table 1, these items are related to efficiency and individual accountability. Hence they measure group work, not team work. Our survey lacked face validity and required a deeper probe into whether the results were really valid.

We conducted a preliminary examination of the teamwork-leadership scale. Factor analysis revealed that all factors loaded into one factor within an acceptable range, indicating one variable, instead of two (Table 3, 4 and 5). But this did not tell us which variable was being measured.

Table 3
Communalities

	Initial	Extraction
Attendance	1.000	.559
Quality	1.000	.492
Quantity	1.000	.486
Resilience	1.000	.434
Professionalism	1.000	.596
Extraction Method: Principal Component Analysis.		

Correlations for all scale items are in Table 6. As evidenced below, all items correlate significantly with each other in congruence with the factor analysis.

Table 4
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.567	51.339	51.339	2.567	51.339	51.339
2	.756	15.129	66.468			
3	.708	14.152	80.620			
4	.550	10.999	91.619			
5	.419	8.381	100.000			
Extraction Method: Principal Component Analysis.						

Table 5
Component Matrix[a]

	Component
	1
Attendance	.748
Quality	.702
Quantity	.697
Resilience	.659
Professionalism	.772
Principal Component Analysis.	
a. 1 components extracted.	

CONCLUSION

When conducting in-house research it is important to follow the sequential steps of the correct methodology. Professors follow the steps in writing their dissertations or thesis. When teaching research methodology, professors deduct points when students skip steps or do not follow the sequential steps. When conducting and publishing research, professors are held to very high ethical standards of reporting: thus they follow the proper steps. Then why is it that committees developing measures of learning outcomes do not always practice what they teach?

The survey investigated herein did little to measure either leadership or teamwork. Three years of collecting data were wasted because the committee did not approach this task with the same perseverance of a personal research project. Perhaps faculty perceives assessment as just an added task to be completed as quickly as possible. However, by not following the proper design methodology, the results and evaluations are meaningless. By seeing our mistakes, faculty may be able to avoid them at their schools. Following is a list of suggestions to improve the process of assessing leadership and teamwork.

Suggestion 1: Contact experts to identify the variables. It is also important to place experts on the committee. Experts were not contacted regarding the variables being studied herein.

Suggestion 2: Conduct a thorough review of the literature to identify any existing scales. Using an existing scale that has been validated can reduce the time and cost of in-house development. There was little review of the literature in developing questions for the survey.

Table 6
Correlations

		Attendance	Quality	Quantity	Resilience	Professionalism
Attendance	Pearson Correlation	1	.319**	.444**	.352**	.526**
	Sig. (2-tailed)		.000	.000	.000	.000
Quality	Pearson Correlation	.319**	1	.435**	.363**	.412**
	Sig. (2-tailed)	.000		.000	.000	.000
Quantity	Pearson Correlation	.444**	.435**	1	.271**	.358**
	Sig. (2-tailed)	.000	.000		.000	.000
Resilience	Pearson Correlation	.352**	.363**	.271**	1	.422**
	Sig. (2-tailed)	.000	.000	.000		.000
Professionalism	Pearson Correlation	.526**	.412**	.358**	.422**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Suggestion 3: Keep the high ethical standards used in published research. The purpose of this research was to satisfy accreditation standards, not to investigate a real-life problem. Because the results were not to be published, standard research standards were not applied.

Suggestion 4. Develop the hypothesis based on the literature review and the experts involved in the process. There was no hypothesis, so it was difficult to know what we were looking for.

Suggestion 5: Conduct a pilot study before disseminating to students. No pilot study was conducted. Data was collected with an improper survey for three years.

Considering the statistical results of the analysis, the measurement tool designed to assess whether graduating MBA students were leaders and worked well in teams is not a valid instrument. The recommendation for the graduate committee was to develop a different scale for the leadership and teamwork constructs. The work of three years of meetings and collecting data were a waste of the faculties' time and energy. By examining the mistakes made by our committee, we hope to help others avoid the same problems.

One question that should be pursued is why the students are rating each other so high. Is it because in graduate school all students are more invested in their education? Are they really this good? Another proposal might be the question of their generosity when rating. Are they more forgiving than undergraduates? Since many of our MBAs are already working, they may have experienced social loafing in the workplace and already be conditioned to accept this as a reality. Therefore, their expectations may be lower. Another problem with this analysis is the lack of a social desirability scale to determine if they are rating the way they think is socially acceptable or are they just giving everyone the highest score across the board.

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APPENDIX

Teamwork & Leadership Evaluation Form

TEAMWORK: Attendance and Punctuality

3. Attended all meetings; never arrived late nor left early
2. Attended almost all meetings; arrived late or left early sometimes
1. Attended a few or no meetings; often arrived late or left early

TEAMWORK: Work Quality

3. Brought good or exceptional ideas to make the team project better
2. Brought some ideas that can be used for the team project
1. Brought ideas that do not help the team project

TEAMWORK: Work Quantity

3. Performed more work than most team members
2. Performed the same amount of work as most team members
1. Performed less work than most team members

LEADERSHIP: Resilience

3. Was very positive and productive when having disagreements or discussing changes
2. Was positive and productive when having disagreements or discussing changes
1. Was negative and less productive when having disagreements or discussing changes

LEADERSHIP: Professionalism

3. Listened and respected other team members' ideas
2. Listened and attempted to understand other team members' ideas
1. Was not willing to listen or to understand other team members' ideas

The Effect of Student Learning Styles, Race and Gender on Learning Outcomes: The Case of Public Goods

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ABSTRACT

We investigate the impact of active learning techniques, specifically experiment based learning, in a Principles of Economics class. Our case study demonstrates that when using pedagogical techniques intended to facilitate active learning, teachers should be intentional about incorporating components of learning that appeal to students with different learning preferences and demographic characteristics. Drawing upon an earlier study by Emerson and Taylor (2005) we explore the effectiveness of alternative teaching methods conditional upon their learning style preferences, race and gender. We find no significant evidence of gains in learning outcomes from a single case study of experiment based learning. We conclude that experiment based learning as a pedagogical tool is most effective when it is adopted as the dominant teaching/learning strategy for an entire course. Repeated participation in experiment based learning has the potential to foster strategic thinking and provides catch-up opportunities for different groups of students. The use of experiment- based learning as an occasional teaching tool, while engaging students in the classroom, does not appear to translate into significant learning gains.

INTRODUCTION

Several studies in the area of economic education have demonstrated the need for and the effectiveness of active teaching/learning techniques in the classroom[1]. As a result various active pedagogical tools such as experiments, cooperative learning and class discussions have been adopted in Economics classrooms. The efficacy of these teaching techniques have been tested against measures of learning such as Test of Understanding in College Economics (TUCE Scores)[2] and course grades[3].

A significant number of studies in this area have demonstrated that measured learning outcomes measured are improved specifically by the implementation of experiments in the classroom. "Classroom Experiments are activities where any number of students work in groups on carefully designed guided inquiry questions. Materials provide students with the means of collecting data through interaction with typical laboratory materials, data simulation tools or a decision making environment, as well a series of questions that lead to discovery based learning" (Starting Point: Teaching and Learning Economics).

However, subsequent studies found that learning gains were not equal across all student groups. The literature in this area investigated student performances across learning and personality types. Ziegert (2000) incorporated both student and faculty personality temperaments as per the Myers-Briggs personality type indicator (MBTI) to study its impact on course grade and TUCE scores. They find that personality type does affect student performance with implications for the "gender gap" in economics. Emerson and Taylor (2007) combine these two strands of literature to research the impact of personality types in conjunction with teaching methodology, i.e. traditional lecture based versus experiments based, on student achievements measured by the TUCE score in the course. They largely find that the learning gains associated with experiment based teaching methods are widespread across most personality types and that the "gender gap"

1 Becker (1997) and Emerson and Taylor (2004)

2 Wetzel et al (1982) and Emerson and Taylor (2004, 2007)

3 Borg and Shapiro (1996) and Borg and Stranahan (2002)

in economics disappears when controlled for personality types.

Even as the pedagogical literature shows evidence of the benefits of experiment based learning, universities and colleges face increasing resource constraints requiring in some cases, curriculum standardization across introductory Economics classes. A standardized curriculum may also be needed to facilitate the program needs jor. the flexibility of instructors to adopt active learning demand for the Business major of a growing cohort of Business majors[4].The above developments have required instructors to teach larger classes to an increasingly diverse student body and at the same time teach a broad portfolio of courses. Our mid-sized Midwestern University, for instance, is a private university that has followed a model of small class sizes that maximize student-teacher interaction and is now planning for enrollment growth. Additionally, faced with the constraint of conforming to a standardized curriculum, instructors could be hampered by lack of time in incorporating active learning techniques, such as experiments, in their classrooms[5]. Further, while earlier studies have demonstrated gains in learning outcomes from experiment based learning, these gains in learning outcomes were measured through comprehensive testing at the end of a semester. For instance, the Emerson and Taylor (2004, 2007) findings are based upon a series of eleven experiments that were conducted over an entire semester. We investigate whether experiments could be strategically used as a teaching technique within a traditional lecture based class to reinforce understanding of key concepts.

We propose to build upon Emerson and Taylor's (2007) study to answer the following questions:

- Are there gains from experiment based learning when the constraints of a common curriculum limits the ability of the instructor to adopt active learning techniques? In other words, is an active learning technique equally effective when the dominant teaching style is traditional-lecture based, interspersed with a few active learning modules?
- Are there differential eriment based learning persista across race and gender? is one that
- s dominated by g. gains from experiment based learning across learning styles and do they persist across race and gender?

We, therefore, measure learning performance by testing students on learning outcomes from a single experiment instead of an overall course assessment. This study is an improvement on an earlier paper wherein we compared mean differences in learning outcomes between the experiment and control groups. In this study, a similar comparison is made subsequent to controlling for student characteristics pertaining to gender, race, ability and learning preferences. We also investigate whether female and non-white learners experience differential learning gains relative to male and white students, in an experiment setting. Learning style of students is identified using the VARK (Fleming, 1995) or Visual-Auditory-ReadWrite- Kinesthetic[6] method. This technique identifies student learning preference directly unlike the MBTI Indicator method where personality type is used to draw inferences about the learning style of the student The VARK methodology was developed to identify the ways by which individuals prefer to receive and/or impart information. This method of identifying learning styles was developed solely to assist with optimizing the information intake and communication experience of learners and does not account for their personality types, physical and social environment. While these other factors also impact learning ability, in focusing specifically on the best method by which students prefer to learn, it enables us to determine the best method of communication in the classroom. Bernardes and Hanna (2009) use VARK methodology and find that while student learning styles vary by student gender, they are invariant by student major. The study by Boatman, Courtney and Lee (2008) uses the VARK methodology and finds that students with a visual learning preference perform better in an Introductory Economics Course. Their findings, however, do not factor in the teaching

4 According to the National Center of Education Statistics, in 2010, one-fifth of graduating students are Business majors and the percent of Bachelor's degrees conferred by degree granting institutions has increased by 32% over the period 2000-2010.by Bu

5 Becker and Watts (2001) find from a national survey of American institutions of higher learning in 2000 that in four types of undergraduate Economics courses (Principles or Introductory, Intermediate Theory or Upper Level, Statistics and Econometrics and other Upper-Division courses), though instructors spend more time teaching, the typical instructor continues to be a person "who lectures to a class of students as he writes text, equations or graphs on a chalkboard, and who assigns students reading from a standard textbook". Becker coined the term "chalk and talk" for this type of teaching and finds that the median time spent lecturing in all courses in all institutions is 83%.

6 See Appendix A for a description of each of the VARK learning style preferences.

methodology used by the instructors. Emerson and Taylor (2007) combine these two strands of literature to research the impact of personality types in conjunction with teaching methodology, i.e. traditional lecture based versus experiments based, on student achievements measured by the TUCE score in the course. They find that the learning gains associated with experiment based teaching methods are widespread across most personality types and that the "gender gap" in economics disappears when controlled for personality types.

DATA

Students in our study were enrolled in one of three sections of the Principles of Economics: Macro course and one section of the Principles of Economics: Micro course at the University during the 2013 spring semester. The micro section consisting of 28 students was the control group, while the three macro sections, consisting of 84 students, was the experiment or treatment group. Students at VU use the same textbook for both the micro and macro portions of the course and the first 5 chapters of both these courses are identical in content. The experiment chosen for this study pertained to a topic from one of these five chapters with relevance for both courses.

The control group was taught using the traditional lecture based method of instruction. Information on student characteristics were obtained from an informed and voluntary consented survey approved by the Institutional Review Board of Valparaiso University (VU). We classified students into learning style preferences by scoring and classifying responses to a questionnaire designed by Fleming (1995). Classification of students by major, year, race, gender and learning style are presented in Table 1. A limitation of small sample size is that there is some heterogeneity across sections in terms of sub-sample distribution by student characteristics, as evident from Table 1, a factor to keep in mind while analyzing learning outcomes.

The experiment information sheet and design for each section was identical. After the experiment was completed, we compared learning outcomes by handing out a questionnaire on concepts pertaining to the topic. We chose this format to lower grading time in contrast to our earlier study (Raman and Devaraj, 2012) where the format was one of short response questions.

EXPERIMENT DESIGN AND ASSESSMENT

The concept illustrated using the experiment method was public goods as a special case of market failure. Our Principles of Economics classes are largely taught within the framework of a market capitalist economic system. Students are taught that the "invisible hand framework" of a competitive market leads individuals to make voluntary choices that are in their own and ultimately society's interest. This is an idea that the largely conservative students at our university find ideologically appealing. Moreover, this concept is continuously reinforced in many Economics and Business classes as it forms the theoretical basis of many economic models. However, as the debate on the role of government in a market economy intensifies both within the Economics discipline and in the popular press, we feel that it is imperative that students be aware that the markets could fail when individual decisions do not lead to socially desirable outcomes. Therefore, we made a strategic choice to adopt an experiment based approach to demonstrate to students that market failure, and specifically public goods, is cause for government intervention to improve social efficiency. A public good is one that is nonexclusive, i.e., that no one can be excluded from its benefits and non-rival, i.e., consumption by one does not preclude consumption by others. Once a pure public good is supplied to one individual, it is simultaneously supplied to all whereas a private good is only supplied to the individual who bought it. This gives rise to the free rider problem where the individual can benefit from the good without paying for it. Under these conditions, the competitive market will either fail to provide or underprovide the good relative to the socially optimal quantity.

We used the game designed by Holt and Laury (1997) to illustrate the concepts of non-rivalry and non-excludability and the subsequent market failure rising from the free rider problem. From a deck of playing cards, students are each distributed cards, 2 black and 2 red, each. In their formulation of the experiment, each student was asked to play two cards by putting them on top of a stack in the instructor's hand. Students "earned" four dollars for each of the red cards that they kept. They also earned a dollar for each red card placed in the stack, by themselves or by anyone else. Playing a red card amounted to making a contribution to the public good. Black cards did not affect an individual's earnings. This game provided students with three choices:

a. to play two red cards
b. to play one red and one black card
c. to play two black cards.

The game illustrates the principles of non-excludability in that individuals cannot be excluded from the benefits of contributions and non-rivalry, i.e., one person's earnings from the group contribution do not reduce anyone else's earnings. It also articulates the public goods dilemma and the resulting market failure, as, in a given round an individual can maximize earnings by not contributing but earnings for society as a whole are maximized when

Table 1
Student Profiles by Learning and Teaching Style

Gender	Male		Female	
	Count	Percent	Count	Percent
Control	18	*64.29%*[a]	10	*35.71%*
Experimental	47	*55.95%*[b]	37	*44.05%*
Total	65	*58.04%*[c]	47	*41.96%*

Race	White		Nonwhite	
	Count	Percent	Count	Percent
Control	22	*78.57%*	6	*21.43%*
Experimental	65	*77.38%*	19	*22.62%*
Total	87	*77.68%*	25	*22.32%*

Major	Business		Social Science		Arts		Humanities		Science/ Engineering	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Control	16	*57%*	2	*7%*	2	*7%*	2	*7%*	6	*21.43%*
Experimental	47	*55.95%*	15	*17.86%*	0	*0%*	3	*3.57%*	16	*19.05%*
Total	63	*56.25%*	17	*15.18%*	2	*1.79%*	5	*4.46%*	22	19.64%

Year	Freshman		Sophomore		Junior		Senior	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Control	7	*25%*	13	*46%*	6	*21%*	2	*7%*
Experimental	19	*22.62%*	43	*51.19%*	14	*16.67%*	7	*8.33%*
Total	26	*23.21%*	56	*50.00%*	20	*17.86%*	9	*8.04%*

Learning Style	Visual		Auditory		ReadWrite		Kinesthetic		Multimodal	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Control	0	*0%*	6	*21%*	8	*29%*	11	*39%*	3	*10.71%*
Experimental	11	*13.10%*	26	*34.67%*	13	*15.48%*	24	*28.57%*	10	*11.90%*
Total	11	*9.82%*	32	*28.57%*	21	*18.75%*	35	*31.25%*	13	*11.61%*

a The percent in each sub-category calculated as a percentage of the total number of students in the control group (28).

b The percent in each sub-category is calculated as a percentage of the total number of students in the experiment group (84).

c The percent value in calculated as a percentage of the total number of students in the survey (112).

everyone contributes fully. The experiment, thus, allows students to visualize the concept of market failure and conclude from discussions with the class that society's earnings can be maximized only when everyone is compelled to contribute by an outside agency, like the government.

We modified the game by incorporating the use of clickers. Instead of physically collecting and returning the cards to each student after each round we presented the above options to students on a projector and required them to choose one of the above three options using clickers. The total number of red cards contributed was reported to the class after each round. Using clickers not only allowed the students to keep their decisions private but also reduced the "dead time" in between rounds that were spent collecting, tabulating and redistributing cards[7] and freed up more time for class discussion. Any discussion pertaining to the experiment and the applicability of its outcomes to the concept of public goods were conducted only after all rounds were completed.

We went through multiple rounds of the experiment and also changed the value of a red card in subsequent rounds. The expectation is that as "earnings" and therefore net benefits from playing a red card decreases, participants will be more inclined to play red cards. (See Holt and Laury, 1997 for the instruction sheet handed out to the students in the experiment class). We measured learning outcomes by including 6 multiple choice questions on public goods (See Appendix B) in the student survey[8]. A comparison of total points on these provided a measure the impact of experiment based teaching by student learning type.

Table 2
Comparison of Learning Outcomes across Groups

	Control Group (N=28)	Experiment Group (N=84)
Average Total Score[a,c]	5.39	5.11
Average Q1 Score[b,c]	0.93	0.83
Average Q2 Score[b,c]	0.96	0.98
Average Q3 Score[b,c]	0.86	0.81
Average Q4 Score[b,c]	0.82	0.86
Average Q5 Score[b,d]	0.96	0.86
Average Q6 Score[b,c]	0.86	0.79

a Out of a maximum of 6 points.

b Out of a maximum of 1 point each.

c The t-statistic shows that the mean values of the control and experiment group are not significantly different from each other.

d The t-statistic shows that the mean value of the control group is significantly greater than the experiment group at the 10% level of significance.

RESULTS

Contrary to expectation, the control group scored higher in the post experiment questionnaire than the experiment group. A breakdown of the average overall score and by question per student in presented in Table 2. Female students score significantly higher than their male counterparts in the experiment group, at the 5% level of significance whereas nonwhite students score significantly less than white students in both control and experiment groups at the 5% level of significance.

We also investigated whether learning outcomes varied across learner preferences. Except for multimodal learners, no learning preference group experienced any learning gains in the experiment group relative to the control group though once again the difference in average scores is not significant (see Figure 2). It is worthwhile to note that these results could be driven by the heterogeneity in the relative weights of learning style in the two groups (see Table 1). Figures 1 and 2 show no evidence of gains from experiment based learning, unlike in an earlier study by

7 Ball, Eckel and Rojas (2006) demonstrate that using handheld devices and wireless technology facilitates the use of experiments in large classes, a fact of budget realities. These handheld devices uniquely identify students and enable tracking of decisions and scores. They assessed the effectiveness of this methodology using pre and post-test assessments and parallel final exams for an experiment classes and a control class. Amongst the gains in learning outcomes, was a statistically significant difference in final exam grades of 3.2 points for the experiment group.

8 Emerson and Taylor (2004) criticize the choice of a common set of multiple choice questions as a testing instrument due to its susceptibility to potential bias. These criticisms arose from aspects that were specific to their experiment design wherein the majority of instructors writing the exam taught the control sections. In our experiment all sections were taught as well as questions designed by the same instructor.

us that was largely based on univariate analysis. In this paper, we control for student year, ability, effort, major and previous participation in a similar experiment in addition to race, gender and learning preferences. To test for the impact of gender, race and learning style preferences on learning outcomes (total points) we estimated the following equation using the Ordinary Least Squares method.

Variable descriptions and the results of the regression analysis are presented in Table 3. Model 1 is our basic model while Model 2 includes gender, race and learning preference interacted with experiment. Model 2 helps us to test whether female (male), nonwhite (white) and various learning preferences[9] experience learning gains or losses relative to the base group in an experiment based learning format. The R-squared and adjusted R-squared

Figure 1
Comparison of Learning Outcomes by Race and Gender

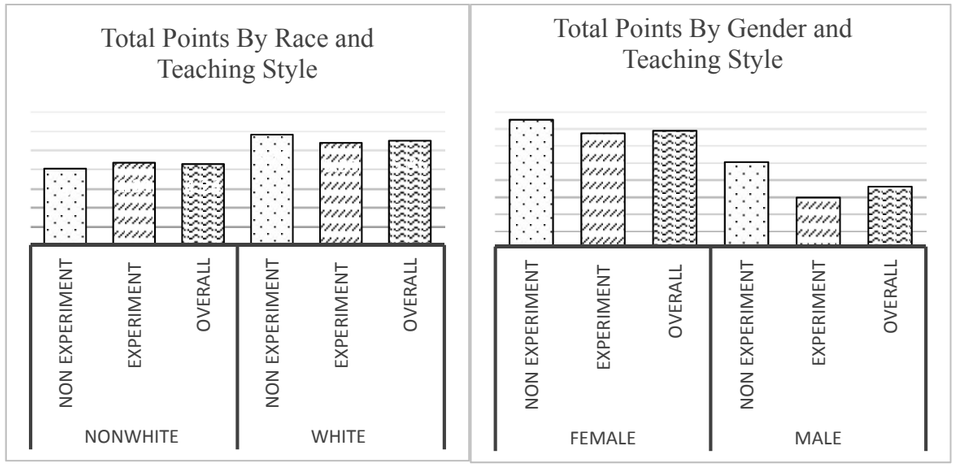
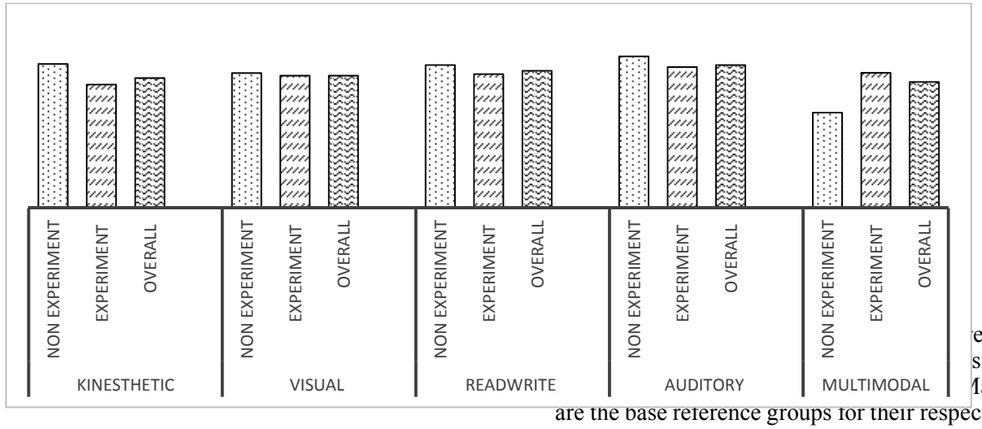


Figure 2
Comparison of Learning Outcomes by Learning Preference and Teaching Style



ence
sion.
Major
are the base reference groups for their respective subcategories.

Table 3
Impact of Race, Gender, Learning and Teaching Styles on Learning Outcomes

Total Points	Variable Definitions	MODEL	
		1	2
Experiment Class	Dummy var. equal to 1 if student is in an Experiment Class	Ø.36 (Ø.3Ø)	Ø.58 (Ø.95)
Female	Dummy var. equal to 1 if gender is Female	Ø.53 (Ø.25)**	Ø.58 (Ø.48)
Nonwhite	Dummy var. equal to 1 if student is Nonwhite	-Ø.97 (Ø.28)***	-1.54 (Ø.67)**
High School GPA	Student High School GPA	Ø.44 (Ø.25)*	Ø.45 (Ø.25)*
Study Hours	Dummy var. equal to 1 if student studies more than 15 hours per week	Ø.17 (Ø.46)	Ø.Ø4 (Ø.46)
Freshman	Dummy var. equal to 1 if student is a Freshman	-Ø.57 (Ø.47)	-Ø.53 (Ø.48)
Sophomore	Dummy var. equal to 1 if student is a Sophomore	-1.Ø5 (Ø.45)**	-1.1 (Ø.46)**
Junior	Dummy var. equal to 1 if student is a Junior	-1.38 (Ø.49)***	-1.43 (Ø.48)***
Econclass1	Dummy var. equal to 1 if student has taken 1 or more Econ classes	-Ø.2Ø (Ø.29)	-Ø.14 (Ø.3)
Business	Dummy var. equal to 1 if student's major is Business	Ø.48 (Ø.73)	Ø.54 (Ø.73)
Social science	Dummy var. equal to 1 if student's major is in the Social Sciences	1.Ø1 (Ø.76)	1.Ø4 (Ø.75)
Arts	Dummy var. equal to 1 if student's major is in the Arts	Ø.42 (1.11)	Ø.Ø9 (1.12)
Humanities	Dummy var. equal to 1 if student's major is in the Humanities	Ø.4Ø (Ø.89)	Ø.52 (Ø.92)
Science	Dummy var. equal to 1 if student's major is in the Sciences or Engineering	Ø.Ø7 (Ø.76)	Ø.16 (Ø.76)
Previous Experiment	Dummy var. equal to 1 if student participated in Public Goods exp. in a previous class	Ø.15 (Ø.29)	Ø.14 (Ø.29)
Kinesthetic	Dummy var. equal to 1 if the dominant learning type is Kinesthetic	Ø.42 (Ø.38)	1.71 (Ø.78)**
Auditory	Dummy var. equal to 1 if the dominant learning type is Auditory	Ø.8Ø (Ø.39)**	1.52 (Ø.93)
Visual	Dummy var. equal to 1 if the dominant learning type is Visual	Ø.19 (Ø.5Ø)	-Ø.14 (Ø.52)
ReadWrite	Dummy var. equal to 1 if the dominant learning type is Readwrite	Ø.31 (Ø.43)	Ø.71 (Ø.93)
Kinesthetic Experiment	Dummy var. equal to 1 if student is a Kinesthetic learner and in an exp. class	--	-1.82 (Ø.89)**
Auditory Experiment	Dummy var. equal to 1 if student is an Auditory learner and in an exp. class	--	-1.Ø4 (1.Ø3)
Visual Experimenta	Dummy var. equal to 1 if student is a Visual learner and in an exp. class	--	dropped

Table 3
Impact of Race, Gender, Learning and Teaching Styles on Learning Outcomes

Total Points	Variable Definitions	MODEL	
		1	2
ReadWrite Experiment	Dummy var. equal to 1 if student is a Readwrite learner and in an exp. class	--	-0.63 (1.05)
Female Experiment	Dummy var. equal to 1 if student is Female and in an exp. class	--	-0.07 (0.56)
Nonwhite Experiment	Dummy var. equal to 1 if student is Nonwhite and in an exp. class	--	0.71 (0.75)
Constant		4.12 (1.15)***	3.40 (1.4)**
R-squared		0.3611	0.4084
Number of observations		111	111

Standard Errors reported in parentheses; ***significant at 1% **significant at 5% *significant at 10%

a This variable is dropped as there are no visual learners in the control group.

values in Model 2 are higher than Model 1 indicating the robustness of the Model 2 specification.

We find that experiment based learning has no significant impact on the learning outcomes as measured by the total points scored by a student in the post experiment questionnaire. In fact we find that participating in the experiment has a negative and significant at the 10% impact on the total score in Model 2. This result reinforced to us that experiment based learning and active learning techniques cannot be adopted in isolation and require a more substantial shift in teaching methodology. Active learning techniques as learning/teaching tools are effective only if learners get continuous practice at participating in and relating experiment outcomes to economic concepts. Also, non-native English speakers may be at a disadvantage in processing experiment instructions and understanding concepts as this learning technique relies on class discussions and student interaction for the student to successfully relate the experiment to theory.

Female students significantly outperform their male counterparts in Model 1. From Model 2 it is evident that there is no significant difference in the average performance of female students relative to males in an experiment class. Similarly nonwhite students experience no differential gains in learning relative to white students in an experiment class. However, nonwhite students score consistently lower than their white classmates. The variable nonwhite does not capture the ethnic and racial diversity amongst nonwhite students, a variable that includes international students. Minority students' performance could be adversely impacted by the absence of a cohort of students of similar backgrounds and of significant orientation and retention programs for minority students.

In Model 1, auditory learners experience positive and significant gains in learning outcomes. They also tend to be the highest scorers across both class groups (see Figure 2). Auditory learners learn best from lectures and have a preference for information that is heard and spoken. In the experiment group these students probably benefited from the post-experiment discussion while in the control group the lecture based format most likely matched their learning preferences the most. However, auditory learners do not experience significant gains from experiment based learning, thus the coefficient on the interaction term is insignificant.

In Model 2, kinesthetic learners outperform the base group of multimodal learners though kinesthetic learners in the experiment class are worse off by 0.11 points on average relative to kinesthetic learners in a non-experiment class. Though we would expect kinesthetic learners to experience gains from simulated learning, the above results suggest that the design and implementation of the experiment did not allow for them to maximize their learning potential from the experiment.

High School GPA, a measure of student ability and effort is a significant predictor of the total points scored by the student in both models.

Sophomores and juniors tend to score significantly lower than the base group of seniors. Seniors, potentially, can tap into a larger knowledge base of related topics and more importantly could have experience with experiment based learning enabling them to convert experiment behavior and outcomes to conceptual understanding.

In analyzing learning outcomes by question (results not reported here), we find that students in an experiment class score higher than the control group in their responses to question 2.Question 2 requires students to be able to apply the theoretical concepts of non-rivalry and non-excludability to classifying goods as public or private and experiment based learning is superior in providing these skills to students relative to the traditional lecture format. Q1, Q3-5 are more factual and consist of concept definitions.Q6 requires students to draw upon their knowledge of markets covered in earlier chapters and relate it to the topic of public goods. There is no significant difference in the performance of the experiment class and the control group in this question.

CONCLUDING REMARKS

In sum, we find no conclusive evidence of gains from experiment based learning. Race, gender and ability are the most significant predictors of student performance. However, these findings do not refute the conclusive evidence established in the literature that experiment based learning in particular results in significant gains in learning performance of students. Our findings reinforce to us that instructors cannot rely on a hybrid teaching technique of experiments and lectures, unless they adopt a threshold number of experiments based topics. With practice, students can be trained to be active participants in experiments, engage in strategic behavior that most experiments require and contribute to post-experiment discussion that is key to relating the experiment to theory. Therefore, flexibility in curriculum design is a precondition to successful use of experiment based learning.

Our findings also prompt us to make the following changes to our experiment design and research methodology:

First, we propose to hand out experiment instructions to students at least a class in advance so that the disadvantages experienced by non-native English speakers and students with learning disabilities are minimized.

Second, instead of testing students on learning outcomes immediately after the topic was covered, both in the control and experiment groups, we propose to test for concept retention by students in either group by testing at least two weeks later.

Third, in the experiment class we propose to minimize peer group advantages of some groups (whites for instance) by changing class seating through some pre-determined formula so that students feel equally (dis)advantaged for engagement in the post-experiment discussion.

Fourth, the post-experiment questions need to be rewritten to test students not merely on factual knowledge but on higher levels of learning as described by Bloom's taxonomy. Our questions have to be rewritten to test for comprehension and critical thinking.

Fifth, we propose to recruit more instructors so that our study findings can be tested for broad applicability despite the consequent variation in instructor methodology. An advantage of doing so would be to increase sample size both across control and experiment groups, thus decreasing heterogeneity in sub-sample characteristics.

In conclusion, this study reinforces to us instructors that teaching techniques cannot be one size fits all. It also provides us with the opportunity to start a conversation with our colleagues on the future of Economics teaching in the context of increasing classroom diversity, size and technological advances in education.

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Appendix A
VARK Learning Preference Categories

Visual (V):
This preference includes the depiction of information in maps, spider diagrams, charts, graphs, flow charts, labeled diagrams, and all the symbolic arrows, circles, hierarchies and other devices that people use to represent what could have been presented in words.
Aural / Auditory (A):
This perceptual mode describes a preference for information that is "heard or spoken." Students (and teachers) with this as their main preference report that they learn best from lectures, group discussion, radio, email, using mobile phones, speaking, web-chat and talking things through
Read/write (R):
This preference is for information displayed as words. This preference emphasizes text-based input and output–reading and writing in all its forms but especially essays, reports and assignments.
Kinesthetic (K):
By definition, this modality refers to the "perceptual preference related to the use of experience and practice (simulated or real)." Although such an experience may invoke other modalities, the key is that people who prefer this mode are connected to reality, "either through concrete personal experiences, examples, practice or simulation" It includes demonstrations, simulations, videos and movies of "real" things, as well as case studies, practice and applications. People with this as a strong preference learn from the experience of doing something and they value their own background of experiences and less so, the experiences of others.
Multimodals (MM):
Those who do not have a standout mode with one preference score well above other scores are defined as multimodal. They are of two types. There are those who are flexible in their communication preferences and who switch from mode to mode depending on what they are working with. They are context specific. They choose a single mode to suit the occasion or situation.
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Appendix B
Public Goods Questions: Test of Learning Outcomes

1. As it relates to a public good, nonrivalry means that:
   a. the public sector is able to provide the good profitably.
   b. there is no need or demand for the good.
   c. either the public sector or the public sector can produce the good, but not both.
   d. one person's benefit from the good does not reduce the benefit available to others.
2. Which of the following is a public good
   a. A fireworks display.
   b. A hotdog
   c. A barbecue grill
   d. A personal computer
3. The market system does not produce public goods because
   a. There is no need or demand for such goods.
   b. Private firms cannot stop consumers who are unwilling to pay for such goods from benefiting from them
   c. Public enterprises can produce goods at lower costs than private enterprises.
   d. Their production seriously distorts the production of income.
4. Non-excludability is the idea that:
   a. government actions cannot remedy market failure.
   b. the presence of external costs and benefits produces a misallocation of resources.
   c. individuals cannot receive benefits from a good without paying for it.
   d. individuals who are unable or unwilling to pay for a good cannot be excluded from the benefits provided by that product.
5. The free-rider problem is that:
   a. free public transportation is overcrowded.
   b. people will not voluntarily pay for something that they can obtain without paying.
   c. government supplies goods at no charge to people who can afford to pay for them.
   d. public goods often create large external costs.
6. Government rather than private firms must provide economically desirable public goods because:
   a. high marginal costs preclude their production in the private sector.
   b. public goods have characteristics that make it difficult or impossible for private firms to produce them profitably.
   c. public goods have marginal costs that exceed marginal benefits.
   d. the law of increasing opportunity costs applies only to private goods.

Improving Career Development in Students by Developing Job Analysis Skills

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ABSTRACT

One of the main goals of business school education is to prepare graduates for employment after graduation. However, many managers complain about the lack of communication skills developed in many graduates seeking employment in the job market (Abraham & Karns, 2009). This paper describes the experiential exercise designed to help students complete the process of job analysis to be used for hiring or other Human Resource functions. Besides learning the process for describing jobs, students discover external resources that can help them develop more effective resumes and interview skills. Results from a student satisfaction survey of this exercise and pre-test/post-test data are provided to indicate learning in the job analysis process.

Strategic human resource management (HRM) practices such as job analysis, recruitment and selection are all important functions for students to learn and, typically, an undergraduate HRM course highlights the best practices in identifying and matching successful candidates with a job's qualifications. However, an additional benefit for students taking a course in HRM is to learn how jobs are defined and selected to help them better prepare for their own job searches in the labor market. The intent of this article is to share an experiential exercise that can be used to teach job analysis techniques in any HRM course. Additionally, the project exposes students to external resources that may help them develop useful resumes and provide useful information to prepare them for employment interviews.

There have been many proponents for developing learning exercises emphasizing practice and theory in the classroom. Adult learning concepts highlighting why a topic is important and why the topic may have immediate value to the student is integral to developing these exercises (Arbaugh, 2005; Roglio & Light, 2009). The purpose of this paper is to advance learning in job analysis for managers and to teach students how to perform a job analysis, to develop effective resumes and to improve interview skills based on a job description.

CAREER DEVELOPMENT SKILLS

Many critics have argued the lack of practical skills developed in business education (Abraham & Karns, 2009; Bennis & O'Toole, 2005; Rubin & Dierdorff, 2009) and managers complain about the lack of job skills developed in many graduates seeking employment (Abraham & Karns, 2009; Johnson, 2011; Sternberg, 2013). Undergraduate students with little work experience need to develop the communication skills to clearly articulate how they may have the work experience and skills needed to perform different jobs. However, many students do not know how to write an effective resume that will garner an interview with an employer (Miller 2012).

Applicants typically use impression management tactics to improve their image in the recruitment process and ultimately to receive a job offer. Self-promotion is an impression management tactic used to create a positive impression (Higgins & Judge, 2004). Self-promotion in an interview or resume can be defined as accurately describing a candidate's work experiences as it relates to job-related qualifications. In other words, how a candidate communicates the similarities between his/her past work experience to the job qualifications creates a positive impression to the employer (Swider, Barrick, Harris, & Stoverink, 2011).

Recently, researchers have found a positive relationship between self-promotion tactics and interview success in job candidates (Swider et al., 2011). Meaning, individuals that communicate how their qualifications and work experience more closely match the needs of the job are more likely to get a job offer. Many undergraduate students lack long-term work experience and need to know how to promote their past work skills and achievements more clearly to become employed after graduation. One way to

improve these communication skills is to teach students about jobs and how they are defined. This active learning exercise emphasizes the practical skill of developing a job description from job analysis which can be used in any organization for hiring purposes, developing performance appraisals and compensation systems. An additional benefit to this exercise is that students learn about external resources such as the O*Net and can use these resources in helping them articulate their work experience in a resume or interview.

The process of job analysis

Organizations and managers are interested in finding the best match between an applicant and a job within the company in order to improve performance and reduce turnover. There are many benefits to conducting a job analysis in organizations. First, a thorough analysis provides a list of the necessary knowledge, skills, and abilities needed to successfully perform a job. This information serves as the foundation for a successful recruiting strategy and selection decisions. Organizations may make fewer mistakes in the hiring process which can be costly if the person hired is not the right 'fit' for the company. This highlights the importance of the relationship between job analysis and validity in the job analysis process. Specifically, predictor and criterion measures are developed in a job analysis to be used in criterion-related validation studies for selection instruments. Job analysis can also demonstrate the relevance of job characteristics for content validity and the equivalence of jobs in validity generalization. Moreover, a formal job analysis may protect companies from costly legal battles against discrimination by showing the selection methods employed are job related to the hiring job (SIOP, 2003; Thompson & Thompson, 1982).

Job analysis gained momentum in practice with the creation of many Equal Employment Opportunity (EEO) laws and regulations (i.e., Civil Rights Act of 1964, Age Discrimination in Employment Act, etc.) as well as the Equal Employment Opportunity Commission (EEOC) developing the Uniform Guidelines on Employee Selection Procedures (1978). Many court cases have discussed the relevance of job analysis in selection decisions and preventing discrimination in the workplace. For instance, the ruling in *Griggs v. Duke Power* (1971) confirmed the need for organizations to show the job relatedness in specific selection requirements. Moreover, the Supreme Court specifically criticized the lack of a job analysis in validation procedures in the case of *Albemarle Paper Company v. Moody* (1975). These examples highlight the importance of job analysis as it relates to performance and selection decisions as well as the legal justification for including these practices in organizations.

Job analysis methods emphasize a systematic process for gathering and analyzing data for a specific job (Harvey, 1991). Typically, there is a preparation stage in which organizations need to be prepared for the process of collecting information. In this stage, organizations decide who will conduct the job analysis, what jobs should be analyzed first and how other organizations may describe the particular job (i.e., external sources such as the O*Net). Collecting job information would follow this stage and can include multiple methods such as conducting informational interviews, collecting questionnaires, and facilitating subject matter expert workshops. Once the data is collected; job analysts would begin the process of synthesizing this information into specific task and KSA statements for the final job description (Brannick, Levine, & Morgeson, 2007; Gatewood, Feild, & Barrick, 2011; Heneman, Judge, & Kammeyer-Mueller, 2012).

Job analysis exercise

This undergraduate course is organized such that the discussion and lecture for job analysis follows lectures on legal issues and measurement/statistical issues for HRM managers. Specifically, students learn a foundation to the importance of job analysis through legal requirements as well as validation procedures and statistical concerns prior to understanding the procedures of job analysis. The lecture on job analysis includes a discussion of the history and a step-by-step process for conducting a job analysis in any organization.

The primary goal of this class project is to enhance student learning related to the process of job analysis and for students to develop an awareness of how to develop their own portfolio of skills in the job market. Students will gain knowledge about how jobs are defined and will highlight what skills are needed for a particular job.

The following steps are required to complete the job analysis project.

1. First, students must choose a job to analyze. The project requirements state that students must choose a job in which they are capable of securing an informational interview with a job incumbent in the data collection process. Students are encouraged to consider jobs in which they would like to have a career or a job that they want to learn more information. Students are expected to conduct background research regarding the job they have chosen to investigate. First, they must print out the job description based on the title of the job chosen in the O*Net database. Also, if available, students are expected to gather a current job description as well as any other documents such as an organizational chart from the job incumbent and/or organization to be interviewed. This information is used to help students gain general knowledge of the job and to guide students as they develop the interview questions in the data collection process.
2. Students develop the job analysis interview questions to use when collecting data from the job incumbent. These questions can be developed from various sources in our course materials and/or Internet searches helping students write appropriate questions for this informational interview. Next, students are required to conduct the interview with the job incumbent and transcribe the entire interview (i.e., questions and answers) as part of the deliverables in the project.
3. Students are required to write as many task statements as possible based on the data collected from the interview and other sources. Students may use course materials as a guide for developing the task statements and should use the sentence analysis technique for writing task statements (Heneman et al., 2012). These task statements are not filtered and represent all possible tasks that may be included in the job. In other words, the essential task statements needed for day-to-day activities are not clearly identified at this stage of the project.
4. From these task statements, students are required to use subject matter experts in identifying the most frequently used tasks as well as the most important tasks. Subject matter experts may include the job incumbent, supervisor or other employees working in the job being analyzed. This step allows students to identify the most essential tasks necessary to successfully perform the job. Students develop a table allowing the subject matter experts to rate the importance of each task (i.e., extremely important to not important at all) and the frequency of performing each task (i.e., performed several times a day to not performed at all). From this data, students will make a decision as to which task statements will become essential tasks and which ones will be deleted from the job analysis. Students are required to justify their rationale for the cutoff set in eliminating general task statements. This information can be derived from the job analysis and/or subject matter experts. Essential task statements are critical to the day-to-day activities of the job incumbent and will be the building blocks for identifying KSA statements necessary for the job.
5. Students develop KSA statements based on the essential task statements identified. The information may come from any of the sources used in the process (i.e., data collected from job incumbent or O*Net database). A matrix is developed that includes the list of essential task statements and all of the KSA statements developed. Students must show the link between each task statement and at least one KSA statement developed in the process. This important step ensures that each KSA statement used to collect information in the selection process has a corresponding essential task statement.
6. Lastly, students format the essential task statements and KSA statements into a formal job description. The job description would serve as the foundation for many HRM activities.

The project deliverables for the project are listed in Table 1 and they demonstrate the process of job analysis. Students are required to submit information reflecting each of the steps outlined in this paper.

Table 1
Project Deliverables

Job Analysis Project	
1	Basic information is provided about the job being analyzed such as title, industry, approximate size of company, approximate number of people in this job, and any supervisory responsibilities.
2	Copy of O*Net description for job being analyzed, an existing job description (if available) and/or company brochures, organizational chart.
3	Copy of the informational interview questions and answers transcribed from the job incumbent interview.
4	List of all the task statements generated from the data collected in job incumbent interview. Matrix showing how the job incumbent rated the frequency/importance of tasks. Final list of the essential task statements to be included in the job description based on the ratings of the job incumbent.
5	Matrix matching essential task statements with corresponding KSA statements.
6	Final job description listing essential task statements and KSA statements for the job.

Job Analysis Exercise Evaluation

The job analysis project has been successfully implemented in an undergraduate Human Resource Selection course in a large, public university located in the southeast United States. Most of the students taking this course are management majors in the College of Business. Occasionally, there are students participating in this course from other programs across campus.

Data was collected to determine if the project improved learning in job analysis practices. Prior to our class discussion on job analysis, students were asked to complete a 20-question pretest to determine a base-level of knowledge for job analysis. A posttest was distributed after the submission deadline for the project. Additional survey items were included in the posttest and related to the relevance and satisfaction with the project expectations. The additional questions were linked to the process of job analysis and less emphasis was placed on understanding concepts which were more likely to be tested in the class exams.

Forty students completed both the pretest and posttest for the project. The average score for the pretest is 8.83 out of 20 questions and the average score for the posttest is 13.25 out of 20 questions. A paired sample t-test was used to analyze the difference in scores between the pretest and posttest. A statistically significant increase occurred in learning from the pretest to the posttest ($t = -5.947$, $p = .001$).

Students were also asked a series of questions related to their general satisfaction with the assignment and usefulness of the project. Nine questions were added to the posttest that addressed whether the project was a useful learning tool for job analysis as well as the benefits of using the O*Net database. The items were evaluated using a 1 to 7 scale from strongly disagree to strongly agree. The means for each of these additional survey questions are provided in Table 2. Overall, the class appeared highly satisfied with the expectations and objectives of the job analysis project.

Many students provided additional comments regarding what they liked or disliked about the project. Consistently, students commented how they liked applying the course concepts in a "real world" exercise. Further, one student commented, "I enjoyed talking with someone in a job that I am interested in and learning the ins and outs of the job." Another student comment reflected upon learning about new resources such as the O*Net and its usefulness to other aspects in HRM. These comments are consistent with the anecdotal evidence collected about this project prior to collecting data.

Students also provided some aspects of the project that they disliked. Many students felt the process was tedious and time-consuming. Another student commented that it was uncomfortable conducting the informational interview with the job incumbent. Some students disliked transcribing the interviews for the project; however, they often recognized the need for the transcriptions. Nevertheless, students provided more positive comments regarding increased learning by applying course concepts and complained less about the amount of work needed to complete the project.

CONCLUSION

Job analysis continues to be a basic tool used within organizations to increase effectiveness in many aspects of HRM. Many organizations continue to benefit from the process of job analysis and students are able to apply these concepts in a useful exercise.

Table 2
Project evaluation questions and averages

Survey questions	Mean
Q1 – This exercise was relevant to learning about job analysis.	6.33
Q2 – This exercise was interesting.	5.50
Q3 – This activity reinforced and complemented what I learned about job analysis.	6.22
Q4 – Conducting a job analysis interview was very helpful in learning job analysis techniques.	6.50
Q5 – This activity helped bring to life what happens when HR managers analyze jobs.	6.12
Q6 – Using O*Net is a valuable tool to understand jobs.	6.06
Q7 – I could use the O*Net to help me with future job searches.	6.39
Q8 – Please comment on what you liked about this project.	
Q9 – Please comment on what you disliked about this project.	

Additionally, with the implementation of this class project, the unanticipated benefits of career development have emerged. For instance, many students appreciate using the O*Net database as a source for developing their resume. Often students have a difficult time crafting their first resume and the O*Net provides a resource that gives them the language to help them relate their past work experience into task based statements. Further, students have discovered the O*Net as a useful tool in preparing for an interview. Students can learn more about the position they are applying and learn how to translate their work experience into the similar knowledge, skills, and abilities needed for the new job. The O*Net provides a valuable resource that teaches students how to speak the language of the job they are seeking. After the class project is submitted and graded, I discuss with the class how the O*Net can be used to help students write their resume and how to use it as an informational source prior to conducting a job interview. This lecture includes a demonstration of how to look up various jobs in the O*Net and learn about the specific knowledge, skills and abilities needed to perform a job. This information can be translated to writing about past work experience in a resume and prepping for a job interview by learning how to communicate their past work experience as relevant qualifications for a future job.

Many of my students have used this class project as an opportunity to network for a future job. It allows them a unique opportunity to investigate a job they are interested in pursuing as well as talk to someone in the field. Some of my former students have turned this class project into an opportunity to gain employment. Moreover, some students have used this class project as the basis for developing a job description for their current employer. In fact, these students were able to integrate this class project into an opportunity to promote themselves with their own employers and provide useful information for these small business owners. Lastly, some of the more entrepreneurial students were able to develop a new job description which was used to develop structured interviews within their own small businesses.

Another advantage for this project is to show students that the process of job analysis can be done in any size organization. Many of my students have stated their desire to work within a small to mid-sized organization; thus, by teaching them the systematic process that could be used in any organization further illustrates the practicality of conducting job analysis and improving HRM decisions such as recruitment/selection.

As with all research, there are limitations to consider. First, this class project has been implemented for many years; however, the sample size indicating student learning and reactions to the class exercise is small. The learning outcomes and reactions are positive but due to the small sample these results should continue to be evaluated to ensure the value in this exercise. Students enrolled in this HRM Selection elective course may be more motivated than other management majors to be successful as they chose to enroll in this specialized HRM course. Another limitation to this class exercise is the time dedicated to teaching the entire process as well as the amount of time invested by students to collect job information and evaluate a job effectively.

Despite these limitations, the practical nature of this experiential exercise provides many rewards to student learning. First, students are able to master a fundamental component of HRM functions. Job analysis concepts are tested through exams as well as the process of completing a job analysis in the project. Next, students are exposed to resources that will help them beyond the course. The O*Net database is a useful tool for developing resumes, investigating jobs and gaining information about jobs prior to an interview. Many students appreciate this resource at this point in their educational attainment. Most students taking this course are seniors and/or graduating in the semester they take this course and have benefited in the job market with this resource.

Finally, practitioners and organizations continue to see the value in integrating job analysis in their HRM functions (Kelley, 2002). Organizations are able to gather pertinent job information to be used as the basis of selection plans and many other HRM functions. Further, job analysis is the basis for showing the job relatedness in hiring individuals and can protect organizations from potential discrimination cases. Similarly, many students are able to use this information to learn career development skills in writing resumes and prepping for job interviews that have an immediate impact on gaining employment upon graduation.

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Like It!
Using Facebook Groups to Enhance Learning in Finance

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ABSTRACT

It has been documented that Facebook is the most popular social networking site among students. Given that most students are already users of Facebook, implementing it into the curriculum provides an easy way for students to actively participate in class activities. This paper explores the idea that the use of Facebook Groups to complement classroom teaching leads to a more meaningful learning experience and increases student engagement in finance. The instantaneous availability of course notes, problem solutions, PowerPoint slides, videos, and all course content to students on Facebook increases their interest in the subject matter and has a positive effect on learning. This paper presents an innovative method of using Facebook Groups to support teaching and learning in finance, and indeed in many other subject areas. The article reviews the literature on the use of Facebook in education and presents a model for effectively integrating Facebook Groups into the finance curriculum.

INTRODUCTION

Social networking sites have become an integral part of our daily lives, influencing the way human beings connect, interact, and share all types of information. Sites such as Facebook, Twitter, Instagram, and LinkedIn continue to increase in popularity and the impact of social media on our society can no longer be ignored. The effect is even more pronounced among college students who have been surrounded by the Internet, and technology as a whole, even before they first entered school.

Without a doubt, Facebook, with 1.15 billion total monthly active users as of June 30, 2013[1], is the most popular social networking site among college students. Many studies have shown that about 85 to 99% of college students have Facebook accounts and spend a considerable amount of time on the social networking site (Jones and Fox, 2009; Matney and Borland, 2009; Towner and Muñoz, 2010). In fact, Smith and Caruso (2010), in a study of 36,950 students, reported that of the 90% of students who claimed to use social networking sites, 97% said they were active users of Facebook. What is the role of Facebook in education? As educators, the widespread use of Facebook deserves our attention. It is incumbent upon us to be innovative, to use new technologies to engage our students and to tap into their different learning styles. Given the fact that our students have embraced Facebook, it is important to recognize that the platform has the potential to facilitate educational collaboration and communication that can positively impact student engagement and learning.

Another important role that Facebook can play in education is one of bringing students and faculty closer together. In much the same way that corporations, and indeed most organizations, now use Facebook (and other social networking sites) to communicate with their customers/clients, faculty can also use Facebook to establish a professional connection with students. In addition, students can establish a connection with other students in the same class. Moreover, these connections can foster professional relationships and educational collaborations that can further increase the positive educational experience that faculty aspire to give their students.

What is a Facebook Group? According to the Facebook website, "Facebook Groups are the place for small group communication and for people to share their common interests and express their opinion. Groups allow people to come together around a common cause, issue or activity to organize, express objectives, discuss issues, post photos and share related content. When you create a group, you can decide whether to make it publicly available for anyone to join, require administrator approval for members to join or keep it private and by invitation only. Like with Pages, new posts by a group are included in the News

1 For more information, see http://investor.fb.com/releasedetail.cfm?ReleaseID=780093

Feeds of its members and members can interact and share with one another from the group."[2]

Facebook Groups can serve many functional purposes in education. They allow students to have access to all class material. In addition to going to learning management systems, such as Blackboard, Moodle, and WebCT, to download the PowerPoint slides, videos, problem solutions, etc., students can also have access to them on Facebook. Facebook Groups facilitate questions and answers. For example, students now have the choice to post their questions on the wall of the Facebook Group, and the answers are also posted there. That way, other students benefit from the questions and answers. Other students may also respond to questions before the professor does so, thereby encouraging an environment where they learn from each other.

This paper will examine the successful usage of Facebook Groups in Corporate Finance to make the classes more exciting and increase student engagement. In the following section the Literature Review is presented, which highlights previous research on the use of Facebook in education. Then, the Theory of Involvement is introduced as the pedagogical framework for the educational use of Facebook Groups in the curriculum. Then, the steps for integrating Facebook into the curriculum is highlighted, followed by the results of a survey of students' perception of the use of Facebook Groups in the Corporate Finance class. Finally, some recommendations for using Facebook Groups in the curriculum are presented, followed by the conclusions.

LITERATURE REVIEW

The noticeable increase in the use of Facebook among college students over the last ten years has resulted in mixed feelings on the part of many educators. On one hand, some educators have been filled with excitement about the potential for increased student engagement and learning via the use of the popular networking site. Mason (2006) and Maloney (2007) both examine the potential advantages of social networking sites, such as Facebook. They highlight increased collaboration, communication, and peer feedback as some of the positive outcomes. Lemeul (2006) also pointed out the convenience of easy interaction and networking between educators and students, as well as among students themselves. Likewise, Lee and McLoughlin (2008) surmised that social networking sites could be important educational instruments as students can use them for knowledge discovery and sharing, as well as for general communication and support. On the other hand, however, some educators are perturbed by the possibility of students becoming increasingly distracted, disengaged, and disconnected from their academics. Cassidy (2006), Brabazon (2007), and Ziegler (2007) all contend that social networking sites, such as Facebook, could have a damaging effect on traditional learning leading to distracted students devoid of critical thinking skills. As a result of these two schools of thought, the debate over the benefits of social media in education persists. However, the fact remains that social networking sites have the potential to reshape the way educators think about the educational process.

Selwyn (2009) examined students' education-related use of Facebook at a university in the UK and categorized the interactions into five main themes: "(1) recounting and reflecting on the university experience; (2) exchange of practical information; (3) exchange of academic information; (4) displays of supplication and/or disengagement; and (5) banter (exchanges of humor and nonsense)". He found that students use Facebook to engage each other about their experiences with lectures, seminars, and faculty. In addition, he found that students use Facebook to exchange information on things such as classroom locations, assignment deadlines, as well as other academic information. Finally, he found that students use Facebook as a means of seeking support from their fellow students, and also as a forum for light banter among themselves. The author concludes that students use Facebook to augment both their formal and informal education by interacting with their peers outside of the classroom environment.

Mazman and Usluel (2010) designed a structural model to investigate how individuals can use Facebook for educational purposes. The authors found that "the educational use of Facebook has a significant positive relationship with its use for communication, collaboration, and resource or material sharing." They also found that educators' perceptions of the use of Facebook as an educational tool greatly influence whether or not the social networking site is adopted. Roblyer et al. (2010) compared students and faculty use of social networking sites using a survey administered at a mid-sized southern university in the United States. The results show that 95% of students, compared with 73% of faculty, has a Facebook account. Interestingly, the authors found that students and faculty check their Facebook account about the same number of times per day (1 – 5 times). However, students tend to check both their Facebook and email, while faculty members are more likely to check their email than Facebook. Both faculty and students reported that they did not use Facebook for instructional purposes. However, the students generally agreed that it would be convenient, while the instructors generally agreed, "Facebook is not for education."

2 For more information, see https://www.facebook.com/blog/blog.php?post=324706977130

There is, undoubtedly, widespread interest by academicians and indeed all educators in the impact of social networking sites on the overall development and engagement of college students. Junco (2011) investigated the link between frequency of Facebook usage, participation in Facebook activities, and student engagement. The author found that there is definitely a relationship between Facebook use/activities and student engagement. However, the author points out that the relationship could be either negative, or positive, depending on whether there are specified academic objectives. Interestingly, the author also found that even though there was no link between frequency of Facebook use and time spent preparing for class, there was a significant negative relationship between time spent using Facebook chat and time spent in class preparation. Finally, the author found that there is a positive relationship between frequency of Facebook use/activities and time spent in co-curricular activities, which can augment the overall college experience.

Towner and Muñoz (2010) analyze Facebook's potential to support learning and teaching using a survey of both graduate and undergraduate students. In particular, the authors examine students' view of Facebook as both a formal and informal teaching device, specifically as an "instructional tool, communication device, and in assisting students in their education and learning." They found that students use Facebook both for formal reasons (student-to-student communication about course-related affairs), as well as informal reasons (student-to-student communication about non course-related affairs). In terms of formal teaching, which is of particular interest here, the study found that 43% of students were of the view that instructors should use Facebook for course and/or instructional purposes. Equally important, however, 80% of these students said they would like instructors to use Facebook to contact students, post assignments, syllabi, class events, handouts, and website links. Not surprisingly, 60% of the respondents agree and strongly agree that they use Facebook much more than they do their web instructional platforms, such as Blackboard and Moodle.

For their research methodology class at the University of Florida, Loving and Ochoa (2011) experimented with Facebook as an online course management software (CMS) solution despite the availability of several online learning systems, such as Blackboard, WebCT, and Sakai. The authors used Facebook Groups to set up a class page, and documented the "flexibility, functionality and utility of using Facebook as an academic communication channel with students." The authors surmised that there are few compromises between the use of Facebook as a course management solution and the normal course management software solutions. It may be worth it to use Facebook as it facilitates the distribution of documents, the administration of discussion lists, as well as live chats. However, the authors do concede that Facebook cannot contend with other CMS in grading, assignment uploading and online testing. Notwithstanding this, they conclude that the widespread popularity of Facebook vastly increases the level of communication, which is manifested in heightened student interest in all classroom activities.

THEORETICAL FRAMEWORK

Astin (1984) put forth a student development theory with the foundation on student involvement. The author describes a highly involved student as one who commits a lot of time and energy to studying, spending time on campus, interacting with faculty and other students, and getting involved in student organizations. Astin's theory of involvement has five fundamental principles: (1) Involvement refers to the amount of physical and psychological energy that the student devotes to the academic experience, both general and specific; (2) Involvement takes place along a continuum, with different students showing different levels of involvement in various activities; (3) Involvement has both quantitative and qualitative aspects; (4) The amount of student learning and personal development associated with an educational program is directly linked to the quality and quantity of student involvement/engagement in the program; and (5) The impact of any educational practice and/or policy is directly linked to the ability of that practice or policy to increase student involvement/engagement.

Astin concludes that the greater the amount of student involvement, the greater the academic and personal development. Therefore, from an educator's perspective, one of the key points of the student involvement theory is that the effectiveness of any academic practice is directly related to the ability of the said practice to increase student involvement and engagement. The author posits that the primary advantage of the student involvement theory over the more common pedagogical theories is that it moves the focus of attention away from the subject matter and technique to the areas of motivation and behavior of the student. As a result, as educators, it is incumbent on us to evaluate our academic practices and policies in terms of whether they increase, or reduce, students' involvement and engagement.

Teaching college students can be challenging, especially in our new technological age. Therefore, if instructors can find creative ways to engage students on every level, students will have more appreciation for the subject matter and its practical applications. In light of the increasing popularity of Facebook, among college students, Facebook Groups can be used to increase the involvement/engagement of students in Finance. However, it is impor-

tant that instructors carefully examine the pedagogical effectiveness of using Facebook Groups in any curriculum, so they can create a good learning environment where students are positively engaged in various aspects of the course. The use of Facebook Groups attempts to reach students in a place where they feel comfortable exchanging ideas, asking questions, and engaging each other in general.

INTEGRATING FACEBOOK GROUPS INTO THE CURRICULUM

Facebook Groups can be used in Finance, and indeed in many other disciplines, to increase student engagement and enhance the overall learning environment. The Facebook Group is used for the following purposes: (1) Students can communicate with other students in the class as well as with the professor; (2) Instructors can post relevant class information, including syllabi, PowerPoint slides, videos, links to current news article, reminders, and virtually any other pertinent class documents; and (3) Instructors can make class announcements and start discussions about material covered in class. With the new popularity of smartphones and the accompanying applications (apps), students do not necessarily need to physically be at a computer to access the Facebook Group. By using the Facebook app, they have access to all class information right on their phone. The following section presents a detailed view of how Facebook Groups have successfully been used in the undergraduate Corporate Finance classes.

Step 1: You need a Facebook account to be able to create a Facebook Group. Therefore, if you do not have a Facebook account, you will need to set up one.

Step 2: After you have set up an account, you can create a Facebook Group from your homepage by clicking 'Create Group' from the menu on the left side. There you will be able to add a Group name, add members, and most importantly, control the privacy of the Group. You will be the administrator of the Group and you will be able the only one who can add group members.

Step 3: The privacy settings are very important. There are three options when it comes to the privacy of Groups: Open, Closed, and Secret. An 'Open Group' is visible by the public and is not the best option to use. I choose a 'Closed Group' where individuals have to be approved to join the Group and only members can see the posts in the Group. This allows the administrator the opportunity to vet each individual who asks to join the Group. A 'Secret Group' can also be used and will also provide a very good level of security.

Step 4: You can edit the group settings and include a short description of the Group, add a photo and manage the members. The description for my Corporate Finance (FN340) class says briefly, *"This group has been created to provide support for FN340. Please feel free to ask questions, make comments, and initiate discussions on the topics covered in class. You can also download class documents here and watch short videos on the more difficult concepts/topics covered in class"*.

Step 5: Send an email out to students inviting them to join the Group. The email should highlight the advantages of being a part of the Group, and should encourage all students' participation. Equally important, the email should stress the importance of privacy and keeping the appropriate privacy/security settings. Moreover, you should make it clear that you have no interest in visiting your students' personal Facebook pages, and they should have no interest in visiting yours. The relationship should be kept strictly professional. An example of the email I use is attached as Appendix 1.

Step 6: Download all class documents to the Facebook Group. As the semester goes by, keep the Facebook Group updated with short videos on the more difficult class topics, problem solving, links to pertinent news, announcements and reminders. Also, encourage students to post questions to the Facebook Group page. That way, all students can see the questions as well as the responses. Other students also have the opportunity to respond to questions before the professor responds. This leads to increased student engagement and involvement in the class giving students a greater opportunity to succeed.

STUDENTS' PERCEPTION OF FACEGROUP GROUPS IN FN340

In an effort to gain comprehensive feedback on students' perception of the use of Facebook Groups in the Corporate Finance (FN340) classes, an online survey was designed and conducted among students who had taken the class in the Spring 2013 semester. A very important characteristic of the survey was that all responses were provided anonymously to lessen demand characteristics and socially desirable bias. The sample consisted of 23 females and 32 males for a total of 55 respondents. Eighty-nine percent of the respondents are business majors, while 11% came from areas such as Actuarial Science and Pharmacy. The majority (80%) of the respondents were Juniors, while 12.7% were Seniors and 7.3% were Sophomores. Fifty-four out of the 55 students had Facebook accounts, but a total of 50 students from both sections joined the Facebook Group for FN340. Those who did not join said they did not use Facebook, and simply had no desire to join the Group.

TABLE 2
STUDENTS' SUGGESTIONS FOR IMPROVEMENT

Respondent	Comments	Date/Time
	It's perfect!	Apr 22,2013 2:40PM
	Really push to join. Wish I had earlier in semester	Apr 10,2013 4:23 PM
	More lecture videos	Apr 10, 2013 3:14
	Put slides up elsewhere, too because I don't always check Facebook	Apr 10, 2013 12:45PM
	I think it's great!	Apr 9,2013 1:10Pm
	I think it could be improved by going over questions in class that are asked through the page.	Apr 8,2013 3:19Pm
	Thought it was really useful didn't check it as much as I should have. Glad everything was posted on it. Has made it much easier to access the materials.	Apr 3,2013 2:30AM
	More review problems.	Apr 2,2013 10:17 PM
	I would add more content to it. Also make it more inviting to discussion. Maybe have like virtual office hours open.	Apr 2,2013 8:11PM
	I love it	Apr 1,2013 2:16PM
	If people were to be more involved	Apr 1,2013 11:16AM
	I think it is great as it is	Mar 31,2013 10:59PM
	I think it is fairly helpful the way it is currently	Mar 31,2013 10:02PM
	n/a	Mar 31,2013 9:02 PM
	I think it is great as it is	Mar 30,2013 11:03AM
	More frequent updates	Mar 29,2013 3:57PM
	I think it's very effective and useful as it is	Mar 29,2013 9:22AM
	It's already really efficient	Mar 29,2013 12:12AM
	Create a discussion board	Mar 28,2013 8:37PM
	Sometimes I would prefer if assignments or additional problems or solutions weren't just posted to Facebook but also emailed out to us. I check my Facebook so often that sometimes I forget that something has been posted in your finance group	Mar 28,2013 8:05PM
	You could post tips and hints for quizzes and tests instead of just documents. Or remind us what to prepare for class	Mar 28,2013 7:42PM
	I think its plenty effective	Mar 28,2013 7:12PM
	I think it's a great option to have and makes it easier to get help from peers when you don't know anyone in the class very well	Mar 28,2013 5:14PM
	If people email questions you can post them on the Facebook group so others know the answer as well	Mar 28,2013 4:02PM
	I think it's great and very useful	Mar 28,2013 3:50PM
	I like it!	Mar 28,2013 3:42PM
	I think it's working just fine	Mar 28,2013 3:17PM
	I really can't suggest and improvements. Whenever I get onto the Support Group there's never anything missing that I'm looking for. For the reasons I want to look at the support group (see when a quiz is going to be posted, look thru the slides, open and print off packets, find problem solutions) all those are there. I don't know how much more interactive it could be	Mar 28,2013 3:04PM
	Its working well now	Mar 28,2013 2:36PM
	Maybe it's me that doesn't know how to get email notifications sent straight to my phone but more emails.	Mar 28,2013 2:20PM
	I believe it's fine the way it is	Mar 28,2013 2:19PM
	Add a calendar	Mar 28,2013 2:18PM
	I can't think of any ways at the moment	Mar 28,2013 2:05PM

TABLE 2
STUDENTS' SUGGESTIONS FOR IMPROVEMENT

Respondent	Comments	Date/Time
	I think it's very useful and gives way for students to ask questions and remind them of upcoming events.	Mar 28,2013 1:48PM
	I think it's fine. Allows students to reach professor and gives an online resource to grab powerpoints and solution guides from. Does all what I would expect it to	Mar 28,2013 1:40PM
	Posting handouts that are distributed in case you miss a day	Mar 28,2013 1:35PM
	I'm pretty content with the implementation of the Facebook page.	Mar 28,2013 1:19PM
	Don't know	Mar 28,2013 1:16PM
	I really liked having videos on it. I know those were for the week we didn't have classes, but maybe use the Facebook page to show videos of you doing problem sets. I find it easier when I'm doing problem sets. I find it easier when I'm doing problems outside of class to have someone working examples with me.	Mar 28,2013 1:13PM
	Maybe have more information listed like test and quiz days	Mar 28,2013 1:09PM
	Maybe when someone asks something reply with a new post because then you get another notification	Mar 28,2013 1:08PM
	Can't think of any improvements, it was a very helpful tool	Mar 28,2013 1:07PM
	It works well for me	Mar 28,2013 1:06PM
	If there was a way to ask anonymous questions, I think more people might, this might bring up good teaching points or other things for people think about.	Mar 28,2013 1:03PM
	Maybe put more of the handouts online, so we can reprint them if we lose them	Mar 28,2013 1:03PM
	If it ain't broke don't fix it	Mar 28,2013 1:02PM
	Maybe if a student emails you a question, post it on the page in case more people have the same question	Mar 28,2013 1:00PM
	Posting some extra review problems and solutions for extra practice	Mar 28,2013 12:59PM
	I think it's good as it is.	Mar 28,2013 12:57PM
	Its good	Mar 28,2013 12:57 PM

When asked how frequently they visited the Facebook Group, 76% of students said at least once a week, while 16% said at least once per day. 4% of students said they visited once per month, while only 2% said once a semester or never. In response to the question, "How long do you normally stay on Facebook", 34% of students said less than 15 minutes, 38% said approximately half an hour, 18% said approximately one hour, and 10% said one to three hours. From this, it is safe to conclude that the majority of students do participate in the Facebook Group.

When asked why they used the Facebook Group for FN340 (they were allowed to check all that applied), 76% of students said to access PowerPoint slides; 66% said to find dates for upcoming assignments; 58% said to access problem solutions; 56% said for direct communication with the professor; 54% said to watch class videos; 44% said to review class topics; 38% said to access the course syllabus; 30% said to seek help from peers; and 8% said to learn classmates' names. I surmise that many students access the Facebook Group for a myriad of reasons, but it is clear that the Group contributes to student engagement and involvement in various class activities. In fact, when asked for their impression of the Facebook Group, 56% said it was extremely useful while 44% said is was useful.

Finally, the students were asked to suggest ways in which the Facebook Group could be improved. Out of the 50 students who used the Group, 24 students said that it was fine and no improvements were needed. However, other students suggested adding more videos of topics covered in class, post more discussion topics, post the handouts given out in class in case they get lost, post tips and hints for quizzes and tests. Students also appreciated learning from the questions from other students since all students are able to view the responses. The suggestions for improvement are listed in Table 1.

Overall, the responses indicate that the students find the Facebook Group very interesting and useful. Moreover, they appreciate that the Group facilitates communication with the professor and other students, as well as provides access to all class materials. It has a positive and meaningful impact on learning, and the learning experience in general.

FACEBOOK IN EDUCATION POLICY RECOMMENDATIONS

As students use more and more technology, including social networking sites, both in and out of the classroom, the educational landscape has changed. In an attempt to embrace the changes taking place, and to improve the academic experience of today's college students, some instructors have begun to adopt websites such as Facebook as an educational tool. However, as instructors move into this area, it is important to establish some policies. I have established the following policies for implementing Facebook Groups in courses.

1. The instructor should keep the relationship professional. I recommend that instructors keep their personal profile separate from their professional profile. The appropriate settings will restrict access to an instructor's personal and private social information. This should be the same for students as well. Encourage students to be mindful of their privacy settings, and tell them directly that their personal information should remain private. Moreover, it is important to stress that this is a professional student-faculty relationship and the utmost respect from both sides is expected. The Facebook Group is an educational tool with the primary objective of encouraging more student engagement and involvement.
2. Invite students to join the Facebook Group at the start of the semester so that they can take full advantage of the benefits of participating in the Group. As the instructor, you may have to send out more than one email inviting students to join. However, in my experience, most students request to join the Group after the first email. I also recommend posting a link to the Facebook Group's page on your course management website (Moodle, Blackboard, WebtCT, etc.).
3. As the instructor, you need to be aware that there may be a few students who do not want to participate in the Facebook Group. You need to respect their decision. The Facebook Group should not be used in isolation, but should be used as a complement to your course management website. I post all documents, videos, problem solutions, reminders, links, and announcements on the Facebook Group page, as well as on Moodle. That way, no student is left out of the loop. I also provide several ways a student can communicate with me. The Facebook Page is meant to augment the class, not alienate students.
4. In order for the use of Facebook Groups to be successful as an educational tool, the instructor must provide regular updates to keep students actively involved. I post the PowerPoint slides, videos, problem solutions, assignments, links to current news items, etc. at least once per week. I also answer any questions posted on the Group's page in a timely manner. When other students answer before I do, I always post a positive comment thanking the student for his/her involvement. As an instructor, if you are actively involved in the Facebook Group, then the students are more likely to be actively involved as well. More importantly, this will contribute to the enhancement of learning in the course.

CONCLUSION

The sheer popularity of Facebook among students has created an invaluable opportunity for educators to embrace the social networking site as an educational tool. While Facebook may not be an educational savior, it certainly does offer many advantages to both students and educators especially as it relates to student engagement, involvement, and overall communication. Specifically, Facebook has the potential to reach many students by creating an online learning community where there is increased interaction among students, as well as between faculty and students. Social networking sites, such as Facebook, are here to stay and as educators, we welcome all possibilities to increase student engagement and enhance learning.

Facebook Groups provide an exciting opportunity to provide an online classroom community, where students can

be actively engaged in class activities outside of the classroom. The Groups also provide a forum where students can network and learn from each other. As presented in this paper, Facebook Groups have successfully been used in Corporate Finance classes, but can be used in many other areas as well. Feedback received from students indicates that they find the Groups extremely useful, which highlights the pedagogical effectiveness of the approach.

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APPENDIX 1
SAMPLE EMAIL TO STUDENTS

FN340 Students:

I have created a Support Group for our class on Facebook. Please click here to access the Group page. Please note that in order to keep it private, you will have to ask to be added to the Group. I do hope that you will all join this Group, which will be used as a forum to ask questions, seek further clarification on topics covered in class, access class documents (videos, PowerPoint slides), etc. Also, some students are unable to meet with me during designated office hours so you are welcome to ask questions on our Facebook Group page.

The syllabus has already been posted on the Facebook Group page as well as on Moodle. Please feel free to ask questions if you have any.

NOTE: I have no interest in visiting your personal FB page and you should have no interest in visiting mine. Please be very mindful of your security/privacy settings. Let's maintain a professional relationship.

Once again, please join this Group, as I strongly believe it will help you to succeed in the class.

Enjoy your last few days off!

Kindly,
Dr. Stephen

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Perceptions, Attitudes, & Preferences of Adult Learners in Higher Education: A National Survey

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ABSTRACT

This longitudinal study examines the perceptions, attitudes, and preferences of the adult learners in higher education institutions in the United States. Based on these aspects, this study allowed for an insight into how higher education institutions can create programs to better meet the needs of their adult learning population. This study was especially prevalent related to those students who were already employed in the area management. A qualitative design was utilized, engaging respondents from six geographic regions in the United States. This three year, longitudinal research results were compared and contrasted with the eight principles of the Council for Adult and Experiential Learning, and best practices for meeting the educational and professional needs of the adult learner were proposed.

INTRODUCTION

Since Knowles (1998) published his seminal work on adult learners and their unique characteristics, there have emerged a growing number of studies categorizing these students. Also known as *nontraditional students,* these individuals have been identified as sharing distinctive commonalities, such as: (1) full time employment with part-time enrollment, (2) dependent support (whether married or single parent status), (3) flexibility in academic and professional advisement, (4) acknowledgement of work- and life-experiences, and (5) are constrained by time limitations (Ritt, 2008; National Center for Education Statistics, 2002; Tell, 2000).

The recent economic downturn has forced many adults to re-evaluate their job security, professional competency, and competitiveness with other co-workers. As a result, many workers are looking to higher education to bolster their skill set, marketability, and income opportunities (Ritt, 2008). With this emerging trend, higher education will continue to be impacted as never before to meet the needs and desires of this non-traditional student population. The National Center for Education Statistics (NCES) estimates that over 60 percent of students in U.S. higher education can be characterized as non-traditional (2002). The NCES found that 50% of all graduate students were 30 years of age and older in 2007, and over 80% of graduate students were 25 years and up (Hussar & Bailey, 2009). These graduation rates underscore the need for higher educational institutions to reach out, engage, and serve this older population of student. Universities that are able to address the needs of the adult learner will be positioned to effectively educate this contingent.

Simply attracting and engaging this population does not go far enough in truly developing the adult learner. This population brings forth a unique set of needs and desires. The percentages of students with some nontraditional characteristics have changed in recent years (Ritt, 2008; Tell, 2000). To this point, because developmental needs, issues, and stressors for adults differ considerably from those faced by younger, "traditional-age" students, all aspects of the college environment must be reconsidered (and often reconfigured) to respond to this growing student population (Graham & Donaldson, 1999; Benshoff, 1991).

It appears that institutions of higher education are not adequately addressing the needs of these nontraditional students. Although college recruiters assured prospective students that they were sensitive to the unique challenges of the nontraditional students, more than 75% of the adult learners surveyed for this paper felt that systems were not in place to address the unique needs of the adult learner population. Without devising needs and systems specifically focused on the adult learner, universities will not be successful in engaging, recruiting or retaining the adult learner population successfully over the long term.

Adult Learner Characteristics

Adult learners tend to be achievement oriented, highly motivated, and relatively independent with special needs

for flexible schedules and instruction appropriate for their developmental level (Cross, 1980). Along with the developmental level needs, this study will show that adult learners also want to have instructional strategies tailored to their level of workplace experiences.

One of the leading proponents of effective adult learning practices is the Council for Adult and Experiential Learning (CAEL). Through their research, CAEL has established eight "best practice" tenets for effecting serving the adult learner population, which are known collectively as the Adult Learning Focused Institution (ALFI) principles. These eight principles are summarized in Table 1, below (Tell, 2000, p. 5).

These ALFI principles provide the foundation for effectively serving the nontraditional adult learners, while addressing the obstacles and challenges that face workforce collegiate. Table 1 indicates that experiential and problem-solving learning is highly effective with this group of nontraditional students, technology is both a learning and communication modality, and support systems are essential for the success of these students. All eight principles will be evaluated in this paper.

Table 1
Eight Adult Learning Focused Institution (ALFI) Principles

Principle	Definition
Outreach	The institution conducts its outreach to adult learners by overcoming barriers of time, place, and tradition in order to create lifelong access to educational opportunities.
Life and Career Planning	The institution addresses adult learners' life and career goals before or at the onset of enrollment in order to access and align its capacities to help learners reach their goals.
Financing	The institution promotes choice using an array of payment options for adult learners in order to expand equity and financial flexibility.
Assessment of Learning Outcomes	The institution defines and assesses the knowledge, skills and competencies acquired by adult learners both from the curriculum and from life/work experience in order to assign credit and confer degrees with rigor.
Teaching-Learning Process	The institution's faculty uses multiple methods of instruction (including experiential and problem-based methods) for adult learners in order to connect curricular concepts to useful knowledge and skills.
Student Support Systems	The institution assists adult learners using comprehensive academic and student support systems in order to enhance students' capacities to become self-directed, lifelong learners.
Technology	The institution uses information technology to provide relevant and timely information and to enhance the learning experience.
Strategic Partnerships	The institution engages in strategic relationships, partnerships, and collaborations with employers and other organizations in order to develop and improve educational opportunities for adult learners.

What Adult Learners Need from Universities to Succeed

As mentioned earlier in this review of the literature, many institutions of higher education have fallen short in addressing these emerging needs and wants. It appears that adult learners are unwilling and/or unable to follow the mapping sequence of traditional-aged students either inside or outside the classroom (National Center for Education Statistics, 2002). Adult learners typically desire active, participatory approaches to learning and value opportunities to integrate academic learning with their life and work experiences (Benshoff, 1991). Adult learners are critically concerned about the outcomes or deliverables of their degree program, and are concerned with the practical application of knowledge to their workplace. Table 2 identifies the key outcomes that the working adult expects.

Table 2 does not represent an exhaustive list of domains and outcomes, but highlights some of the critical competencies that have been identified in the literature recently. One important observation from this table is that the nontraditional student is concerned with learning outcomes; that is, they demand that they receive an adequate *return on investment,* commensurate with their financial and academic commitment (Tell, 2000; Terrell, 1990; Thor, 1984). Curriculum design plays a crucial role in generating adequate learning outcomes.

Basham, Meyer, and Perry (2010) found that by utilizing a *backwards design* methodology (where the designer identifies the measurable outcomes and clarifies the assessment procedure), the program learning objectives (PLOs) can be properly identified.

Once these overarching PLOs are specified, all course learning objectives (CLOs) can articulate to the PLOs. In this way the CLOs can be directly attributed to the PLOs. Every course outcome can then be "mapped" (or compared with) the domains listed in Table 2. Any CLO that does not directly link to a PLO will be modified or discarded.

Adult learners are concerned that their andragogical (adult-centered) instruction is applicable to their relevant work and life experiences (Muench, 1987). They want to know that the material they learn in class is something they can incorporate the next day at work. Whether the topic surrounds critical thinking, ethical awareness, or problem solving, the adult learner wants practical skills combined with theoretical concepts.

Table 2
College-Level Outcomes and Their Respective Domains

Domains	Outcomes	References
Communication	Reading, writing, speaking, listening	Bhattacharyya, Patil, & Sargunan, 2010; Jiang, 2007; Tell, 2000
Computation	Quantitative skills	Smith & Smith, 2010; Rowe & Wehrmeyer, 2010; Fletcher, 2007; Tell, 2000
Critical Thinking	Higher order thinking skills, independent judgment, values comparisons	Rowe & Wehrmeyer, 2010; Wilde, 2010; Fletcher, 2007; Tell, 2000; Lundquist, 1999
Ethical Awareness	Applying moral judgment	O'Higgins & Kelleher, 2005; Vitell, Paolillo, & Thomas, 2003; Tell, 2000
Lifelong Learning	Continuous learning	Wilde, 2010; Ma, 2009; Tell, 2000; Fischer, 2000
Problem Solving	The ability to analyze and apply appropriate thinking patterns to an issue to determine the best solution	Rowe & Wehrmeyer, 2010; Wilde, 2010; Tell, 2000
Emotional Intelligence	Inter- and intrapersonal competencies (includes self-awareness, social awareness, self-management, and relationship management)	Colefax, Rivera, & Perez, 2010; Cherniss & Goleman, 2001; Tell, 2000
Teamwork	Working productively with others to attain a specified goal	Edwards, 2010; Woppman, 2010; Sheng, Tien, & Chen, 2010; Tell, 2000
Planning	Taking responsibility for their vocation and educational ambitions	Tell, 2000; Naretto, 1995; Ashar & Skenes, 1993

As noted in Table 1, andragogical instruction is not the only concern of the returning nontraditional student. These full time employed students have unique needs that separate them from their traditional (17-24 year old) counterparts. These concerns include:

- A breadth of information about their educational options
- Flexible financial arrangements
- Institutional flexibility in curricular and support services
- Academic and motivational advising supportive of their life and career goals
- Recognition of experience and work-based learning already obtained (Ashar & Skenes, 1993; Naretto, 1995; Flint, 1999)

These and other concerns depicted in Tables 1 and 2 are the focus of the *Adult Learner Assessment Trending* assessment, which will be utilized for this study.

METHODOLOGY

The *Adult Learner Assessment Trending* (ALAT) assessment deployed a quantitative methodology, including a qualitative feedback component for each section. For this study a questionnaire was created and sent to six regions in the United States. The questionnaire had six sections along with a brief demographic section that directly linked to the needs of the ALAT study. The first sections addressed data related to timing of college, finances and course workload. The second section was comprised of time parameters and challenges facing the adult learner. Section three dealt with more specifics of adult learner financing of their college studies. Section four focused on the factors of motivation related to why the adult learner went back to college. The fifth section explored the educational enhancement factors through the view of the adult learner study participants. The last section focused on the life-education experiences.

This sectional breakout allowed the researchers to better pinpoint the effects of major objectives within this study. The questionnaire was sent to 480 adult learners throughout the United States. The population sample was based on a stratified random selection process in which the questionnaires were sent to 6 geographical regions in the United States. The regions were as follows:

- Northeast–60
- Southeast–60
- North Central–60
- South Central–60
- Southwest–60
- Northwest–60

Of the 480 questionnaires that were distributed throughout the six regions, 173 were returned for a return ratio of 36%. This ratio was remarkable given that the typical return ratio in national surveys of this size have a return ratio of less than 15% Beatty, P. & Hermann, D. (2002). The standard deviation (SD) for return ratio's by the six regions was within a 3% SD, which was also well within acceptable deviation level. The qualitative aspect of the ALAT survey allowed voluntary feedback and input with regard to any aspect of the survey. By and large, there was very little qualitative feedback from those who responded to the survey. To this end, there will be little discussion on the qualitative aspect of this study with the majority of the discussion within this study focusing on the quantitative aspect of this study.

The second component of this longitudinal study was based on follow-up telephone interviews. These were deployed on a volunteer basis. Participation was established when the adult learner submitted their surveys. Respondent permission was granted through an email invitation, which was sent to them asking if they were interested in participating in a telephonic interview. Eighty-six respondents agreed to be interviewed telephonically, and the list of questions is denoted in Appendix One.

Sample Selection. The study focused on adult learners aged 30 years and older. It also selected for those individuals that have been away from college for at least six years. These parameters were established to truly identify and choose the adult learners, as opposed to individuals who may have left college and subsequently returned while still in their 20's or those who have never left college (such as doctoral students).

STUDY RESULTS

The study results will be illustrated by section utilizing a trend analysis method. The initial trend the ALAT study focused on was related the narrative analysis aspect. Specifically the sequential aspects of the data gleaned from the phone interviews were assessed. A story related to how the student either returned to higher education or began their education at a later stage than the traditional age students. Further, the ALAT follow up interview discovered that some elements or views were evaluated differently from others with regard to the student phone responses. For example, many of the students felt very strongly when asked about proprietary schools v. online programs offered at schools from traditional systems. Yet did not evaluate access to educational platforms as dramatically as they felt any platform accessed by them would be similar to others offered at different schools. A second narrative approach to the trend analysis aspect related to how the student past experiences with their work, more than schooled shaped their perceptions of their present need to pursue a degree, college systems as well as their perception related to future career and/or education opportunities.

Patterns, related to their responses were also trended and are discussed more thoroughly in subsequent sections. The overall theme related to the trend analysis put forth a number of surprising, or at the very least, an evolution of the adult learner. Yet another them that merged from the trend analysis was that the adult learner has become a savvy consumer of educational services. The contextual analysis, which really created the capstone aspect of this study, so to speak, focused on the overall inventory of adult learners across the country. Specifically, this study took one of the most in-depth views into the motivations, desires and requirements of the adult learner, which, in turn, created the context for this study.

This method was selected so as to allow the reader valuable insight into the survey instrument responses without getting the reader bogged down in the minutia of each response. The numeric methodology utilized to assess the trending of the responses was a straight percentile based on the average of responses.

Section One: Demographic Results

Study participants responded to a number of demographic questions which identified the type of person that had either entered college or returned to college within the context of this study. Further, this section also trended out the study participant's time away from high school as well as time away from initial entrance into college.

The average age of the student respondents was 40 ,with the mode being 38. The youngest person who responded to the survey was 30 years of age, with the oldest being 65 years of age. The breakdown of males (46) to females (49) respondents was nearly identical. Five percent of those who responded to this survey chose not to indicate their sex. The time period that most of the student respondents were away from college ranged from 11-20 years, which was consistent with the mean and the mode of Table 3. Further, the average age of those who entered college, left and then returned to college also fell within the time range of 11-20 years. This figure was in accordance with age mean and mode for the study. The most surprising percentage in this section was that 15% of the student respondents had never attended college, especially the age mean being 40 and mode being 38. This numeric range may be an area to further study with regard to understanding why they never attended school and what they are looking for in a college.

Table 3
Age Ranges of Student Respondents

Mean age of student respondents	40
Mode age of student respondents	38
Percentage of student respondents within the age range:	
30-39	66
40-49	22
50-59	6
60 and older	6

The results contained in Table 3 supported the literature review that adult learners tend to be in their thirties when they engage the college process. The majority ranged from age 30 to 39 years of age. The fascinating aspect of Table 3 was that 12% of the respondents where 50 years of age or older. This percentage indicates that there may be challenges for the 50 and older contingent, such as comfort with computer technology, contemporary theories, and the need for social (rather than virtual) interaction. This might be an area for further research.

Table 4
Length of Time Away from High School and/or College

Percentage of student respondents who have been away from high school for:	
6-10 years	20
11-20 years	48
20 years	32
Percentage of student respondents who have been away from college for:	
6-10 years	22
11-20 years	44
more than 20 years	19
Percentage of student respondents who have never attended college until now	15

Table 4 provides demographic data which focus on the time period from high school graduation and college enrollment, and the number of years that a respondent may have started college and then returned to this area of study as there is little or no research data focused on the adult learners time away from high school prior to returning to school. The researchers were not surprised that 68% of adult learners have been away from school for less than 20 years. This time to return to school coincides with the adult learners' career opportunity pathway. The research data shows that the majority of adult learners attend school to enhance their career opportunities and earning potential (Tell, 2000). Further, respondents within this study view their life experiences as a strong attribute that has relevance to their degree program.

Section Two: Time Commitment Issues and Obstacles

This section focused on time challenges that face the adult learner. Specifically, this section illustrated aspects related to study, work time (if applicable), family, and whether there is adequate time to fully engage the college education system.

Table 5
Employer Support for the Adult Learners' Academic Advancement

Topical Questions	Percent			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Amount of hours spent at work is 40 or more hours per week	63	18	12	7
School work interferes with my work schedule	71	16	4	9
My employer supports my effort to advance my academic career	83	4	5	8
I have enough time to study adequately	0	3	37	60
School work interferes with family activities	82	6	11	1
I feel that I have time to fully engage my academic journey	0	12	62	26

The results in Table 5 illustrated that adult learners, for the most part, are employed in a full time capacity (87% *strongly agree* or *agree* that school interferes with work). Further, the data illustrates that the employer is generally supportive of the adult learners' effort to acquire a college degree (87% *strongly agree* or *agree* that their employer is supportive of their educational advancement opportunities). However, work and family activities are major obstacles in academic pursuits.

Table 6
Full Time and Part Time
Course Loads for the Adult Learner

Average number of hours spent studying per week	20
Average number of semester hours taken per term	6
Percentage of students attending school fulltime	83
Percentage of students attending school part time	17

Table 6 noted the percentage of students that attended full time or part time. Nationally, 83% of respondents attended school at a full time capacity. The average number of hours taken by the adult learner was six credits hours in accelerated terms. These students appeared to complete their degree in the most expeditious manner possible.

Students also indicated that they spent an average of 20 hours studying per week. This infers that nontraditional students apportioned a significant amount of time in academic engagement. These adult learners wanted to accelerate their learning, but also wanted to invest in a quality education.

Section Three: Financial Costs

How do nontraditional students compare with tradition students in their dependence on financial assistance with their education? Table 7 addresses cost factors such the acquisition of loans, grants, out-of-pocket costs, etc.

Table 7
Tuition Costs for the Adult Learner

Percentage of students who receive some form of tuition assistance	63
Percentage of students using cost as the primary factor in attending a school	11
Percentage of students receiving school grants	23
Percentage of students who have student loans	29
Average out of pocket cost per term	$500+

Table 7 assesses the financial factors facing the adult learners in this study. The nontraditional students surveyed received some form of tuition assistance (63%), as compared with 67% of traditional students that received financial aid (National Center for Education Statistics, 2009). It appears that the adult learners are more reliant on federal grants, loans, and other nonfederal assistance than their traditional counterparts. Further, the data in Table 7 illustrates that only 11% of adult learners choose their university on the basis of financial cost primarily. Further research explicating the selection factors in choosing an institution (brand name reputation, educational delivery methodology, faculty experience, student support services, etc.) would be warranted.

Section Four: Factors Influencing College Enrollment

There are various factors that distinguish attendance and excellence in traditional and nontraditional students. Life experiences are not paramount for traditional students, since they have not acquired the lifetime of skills that their older counterparts have. Table 8 not only identifies the key indicators for adult learner enrollment (i.e. career

Table 8
Factors That Influence Whether an Adult Learner Will Attend and Excel in a University Setting

Topical Questions	Percent			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Life experiences as a motivation for school	68	17	10	5
Career advancement, promotion and employability for school	71	22	3	4
Past experience allowing the student to be a self-directed learner	84	8	3	5
Fear of not fitting in within the traditional school environment	23	28	36	13
Age as a deterrent to attend college	11	9	58	22
Life experiences as a tool for classmates to learn from	73	11	9	7

advancement, promotional opportunity, and employability), but also recognizes factors that may initially deter a student from matriculating into a program (fear of fitting in, dismissal of life experiences, or age deterrents).

The data in Table 8 illustrated that the adult learner does not feel that age should be a deterrent to attending school (80% either disagreed or strongly disagreed). Furthermore, the adult learners felt that their life experiences were assets that they could bring to the classroom as learning tools to be shared with fellow students (84% agreed or strongly agreed). Past experience allowed nontraditional students to be self-directed in their learning environment (92% agreed or strongly agreed), and 85% stated that life experiences motivated them to enroll in school (agreed or strongly agreed). These findings seem to infer that adult learners understand what is required of them to achieve, and these workplace skills (e.g., goal attainment, following protocols and procedures) can be transferable competencies for the classroom. The import of integrating life experiences with course curricula appears vital to the success of a nontraditional degree program, and should be a directive for future andragogical research.

Factors Centering on Technology, Family, and Workplace Application

There was concern that adult learners might not feel comfortable in a fully online or blended setting (where there is face-to-face and online instruction). Familial issues were investigated, such as primacy of four-year college experience, college aspirations for their children, etc. Finally, practical application to the job environment was addressed.

Table 9
Factors Regarding Technology, Family Aspirations, and Educational Applicability to the Workplace

Percentage of students who:	
view technology as a deterrent to attend school	27
feel their life experiences better prepared them for college	87
are the first in their family to attend college	91
feel their children will attend college	93
feel their course work can immediately utilized in their current job	68
view college as an extension of their current job	83

Table 9 revealed that only 27% of the respondents viewed technology as a deterrent to their educational pursuits. The reason for this hesitation was not specified (whether unsure of computer competency, preferred "live" classroom interaction, or other issues). However, technology was no deterrent to nearly 3 out of 4 adult learners, which may be a result of their use of technology in the workplace.

Regarding family attendance in college, the vast majority of respondents to this survey stated that they were the first person in their family to achieve a college degree (91%) and they anticipated that their children would attend college at some future date (93%). The data shows that the majority of adult learners have immediately applied what they learned in school to their current job (68%) as well as viewed school as an extension of their work (83%).

Table 10
Educational Enhancement Factors of Nontraditional Students

Topical Questions	Percent			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Ability to manage the study-school-work triad	67	21	4	9
Willingness to sacrifice other aspect of life for studies	71	13	8	8
Students who benefit from study groups	84	11	2	3
Students who benefit from mandated group projects	9	14	33	44
Students who have a support group in place to aid them with school	85	11	2	2
Online courses are convenient and impactful	67	22	5	6

Section Five: Educational Enhancement Factors

These *enhancement factors* are often critical, intangible requirements that adult learners need for academic success. Use of study groups, school/work/study balance and other group project requirements were explored (see Table 10).

Table 10 dealt with issues related to time scheduling, student groups and the adult learner's willingness to engage specific aspects of college systems. The data showed that adult learners were very comfortable with managing work-school-studying balance (88% either agreed or strongly agreed) as well as their prioritization of time and energy for academic achievement (84% agreed or strongly agreed). With regard to group processes, the adult learners took two different paths. When it came to forming study groups on a voluntary basis, 95% of the adult learners surveyed agreed or strongly agreed that study groups were helpful in their academic success. Similarly, 96% (agreed or strongly agreed) that a voluntary student support group was helpful for general success in school.

However, these same students appeared to be very much opposed to mandatory group projects (77% disagreed or strongly disagreed with the statement that mandatory group projects were helpful). This information may impact curriculum design for adult students. The data also demonstrated that online courses were viewed as very favorable, with 89% of respondents either agreeing or strongly agreeing with that statement. Overall, nontraditional students indicated that they were cognizant of the demands of higher education, and were willing to take responsibility for their academic success.

Section Five: Educational Selection and Retention Criteria

In this section, students were asked to examine the salient criteria for selection of their school of choice, whether they were happy with their choice, and their preferences overall in their educational experience. Study habits and budgeting approaches were also examined.

The data contained within Table 11 illustrated many of the preferences of the adult learner in matters of attraction and retention of this population. Seventy seven percent (77%) of respondents stated that they attended their school because of the reputation of that institution. This may have a correlation with the findings that 92% of nontraditional students preferred nonprofit universities over for profit or proprietary schools. This study did not examine that specific reasons for this reticence in choosing for profit universities, but this question might be worthy of future research.

Table 11
Adult Learner Preferences in College Selection and Retention

Percentage of students who:	
identify the reputation of school as the primary factor in attending a school	77
prefer attending for profit schools	8
prefer attending nonprofit schools that are not considered part of a university system	13
prefer attending nonprofit schools that are part of a traditional university system	84
wish they were attending another school	71
study just enough to pass their coursework	47
create a personal budget to manage school costs	38

One interesting finding was that the vast majority of adult learners preferred to attend schools from traditional university schools, particularly schools that were a member of a distributed university system (84%). These results can be contrasted with 13% of respondents that selected a standalone nonprofit institution that was not a member of a university system. It is unclear as to why 71% of the students surveyed wished that they were attending a different university than the one they were enrolled in. Were these nonprofit or for profit students? Were these disgruntled students part of a distributed system? These and other questions would need to be clarified in future research.

Another significant point identified in Table 11 was related to a rather large percentage of adult learners (47%) that essentially study enough to pass the course. Here again, the reasons that students studied just enough to pass the course was not explicated. For example, was the reason that the adult learner did not excel due to poor instruction, lack of time, lack of discipline, conflicts between work load and school load, or some other criteria? Further research could examine this question.

Finally, Table 11 notes that 38% of nontraditional students created a budget to manage school costs. It is unclear as to whether this percentage of students were better equipped to meet their obligations to pay back their student loans than the remaining 62% of nontraditional students, or whether this merely indicates that others had the financial support of their company for tuition, textbook, and other school related expenses. Also, repayment of federal and state student loans would be of interest to the lending institutions, so future research (including whether adult learners are more capable of loan repayment than their traditional counterparts) might produce interesting data.

Section Six: Motivation for Pursuing a Degree

What motivates the average adult learner to complete his or her degree later in life? Is the primary driver career advancement, self-satisfaction, being an example to one's family, or degree completion? Table 12 addresses these aspirational items.

The data contained in Table 12 focused on factors that motivate adult learners to engage the college challenge, despite competing forces in their lives. There is a significant data that alludes to the premise that adult learners are mainly motivated by increased earning potential (Aslanian, 1996; Winefield, 1993; Bauer & Mott, 1990). While this factor rated very high in this survey (83% responded in the *Agreed* to *Strongly Agreed* categories), one surprising outcome was the fact that the lifelong learner was more motivated by setting an example for their children than for increased earning potential (91% agreed or strongly agreed). This could be attributed to the fact that the vast majority of adult learners will be the first in their family to earn a college degree (refer back to Table 9).

It was also clear that these lifelong learners were not only motivated by extrinsic incentives (such as with pay raises or job security), but they were driven by intrinsic incentives as well. Table 12 demonstrated that 82% (either agreed or strongly agreed) of respondents were pursuing their degree for the self-satisfaction of accomplishing this feat, while 93% (agreed or strongly agreed) of those surveyed were determined to complete their degree. Eighty-Seven percent (agreed or strongly agreed) of respondents valued the rigors of educational pursuits in general, while 86% (agreed or strongly agreed) found that they could apply their degree program to their current job. These results

Table 12
Motivation Factors for Pursuing a Degree

Topical Questions	Percent			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Increased earning potential	71	12	7	10
Self satisfaction	68	14	12	6
Example for children	80	11	4	5
Degree completion	71	22	4	3
Values the rigors of education over a diploma	83	4	2	11
Utilizes school learning resources	11	4	44	41
Application of degree program to current job	78	8	3	11
Use of course work to satisfy continuing education units	3	2	34	61

seem to indicate that the adult learner tended to be self-driven as they engaged the college challenge.

Another observation from Table 12 was the fact the adult learner did not embrace school learning resources available. This may be due to the fact that they are very independent in their problem solving skills, or that they might utilize informal study guides such as ad hoc study teams, conferences with the faculty, or other non-institutional approaches. However, it is yet another opportunity for colleges to make advances within the adult learner population. Clearly, 85% either disagreeing or strongly disagreeing with the statement that they utilized school learning resources identifies a disconnection with the resources provided. The lifelong learner may have been unaware that such assistance existed, the resources may have been inadequate, or these adults are too independent to ask for help. Future research could examine this phenomenon.

One final observation was that few adult learners (5% agreed or strongly agreed) that they attended college for the purpose of pursuing continuing education units (CEUs). There may be at least two reasons why adult learners do not utilize colleges for the pursuit of CEUs. First, there are several organization offering and heavily advertising CEUs to the adult learner. To this point, this industry is takes in more than 50 million dollars a year. The second reason may signify that most adult learners view colleges as a degree process only.

KEY FINDINGS

Demographic data

Many of ALAT survey findings were consistent with the Adult Learning Focused Institution (ALFI) principles established by the Council for Adult and Experiential Learning (CAEL). For example, 88% of students surveyed in the ALAT instrument were found to be between the ages of 30 and 49 years of age. It was also found that 80% of lifelong learners were away from high school 11 or more years before returning to school, and 63% of returning students were away from college for at least 11 years.

Work-Life-Study Balance.

he respondents indicated (81% agreed or strongly agreed) that they spent at least 40 hours at work, had supportive employers for educational advancement (87% agreed or strongly agreed), yet were challenged because of conflicts of time with work (87% agreed or strongly agreed) and family activities (88% agreed or strongly agreed). Ninety Seven percent (97%) disagreed or strongly disagreed with the statement that "I have enough time to study effectively." These nontraditional students were highly motivated, being willing to sacrifice other activities for their studies (84% agreed or strongly agreed).

The average adult learner attended school fulltime (83%), took six semester credits per term, and dedicated an average of 20 hours of study per week to educational pursuits. And 91% of those surveys indicated that one motivator for pursuing a college degree is to be an example for their children.

Overall, the demographics in this study are consistent with those found by the National Center for Education Statistics (NCES). The NCES (Tell, 2000, p. 3) found the following about adult students:

Table 13
Comparison of Adult Learner Characteristics Between NCES and ALAT Findings

Characteristic	Findings	
	NCES	ALAT
Delayed enrollment into postsecondary education	Yes	Yes
Attend part time	Yes	No[a]
Are financially independent of parents	Yes	Yes
Work fulltime while enrolled	Yes	Yes
Have dependents other than a spouse	Yes	Yes [b]
Are a single parent	Yes	Not asked
Lack a standard high school diploma	Yes	Not asked

[a] if 6 semesters/term is considered fulltime

[b] inference made regarding being one's children eventually attending college

Financial matters

Sixty-three percent of ALAT respondents received some form of tuition assistance, 23% received school grants, and 29% were given student loans. The ALFI principles agreed with the ALAT findings that "nearly half of all undergraduates, and most graduate/first professional students, are self supporting (adult) students" (Tell, 2000, p. 8). The ALFI exemplary practice recommendations are useful for universities in serving lifelong learners:

- Informs adult learners about convenient payment options available to them
- Assists adult learners with deferred payment plan options when tuition reimbursement programs do not make funds available until course completion
- Assesses charges to learners incrementally during the course of a program and establishes equitable refund policies
- Helps learners develop strategies for locating external funding to assist with education costs
- Makes financial aid and scholarships available to [full and] part-time students

The researchers inserted the "full and" designation in the last recommendation since the overwhelming number of students found in the ALAT study were full time students. The next section will discuss the types of educational environments that adult learners desire.

School Preferences

Reputation was a primary factor in selecting a school, according to 77% of respondents in the ALAT survey. In addition, 92% of adult learners preferred attending nonprofit schools, as compared with 8% of nontraditional students who desired for profit institutions. Furthermore, 84% stated that they would rather be enrolled in a nonprofit institution that was part of a distributed system, rather than a standalone campus. Only 13% of those surveyed preferred a nonprofit school that was not affiliated with a distributed system.

The ALFI principles do not directly deal with the issue of for profit vis-à-vis nonprofit institutions. The strong preference for nonprofits in the ALAT survey was unexpected, and worthy of further review. The causal factors that contribute to the stigmatization of for profits would be an area worthy of future research.

Adult Learners' Motivation

The ALAT survey found that nontraditional students enroll in universities for a variety of different reasons. As one would expect, 83% of respondents denoted that increased earning potential was key in pursuing college, 82% matriculated for the self-satisfaction of increasing their educational acumen, and 93% desired to finish their degree that was interrupted due to life's impediments. One interesting finding was that 91% registered for college as an example for their children. This motivation would be particularly meaningful, presumably, for those who would be the first to graduate with a college degree in their family.

It was evident, from the results, that receiving a degree was not the only end product that these lifelong learners desired. They wanted a rigorous education that was valuable (87% agreed or strongly agreed), applicable to their job (86% agreed or strongly agreed), and classrooms where their life experiences were appreciated (84% agreed or strongly agreed). Interestingly, 85% of those surveyed did not avail themselves of school learning resources, nor did they utilize university course work for continuing education requirements (95%). These nontraditional students were very focused and specific regarding their learning outcomes.

As pointed out earlier, learning outcomes (such as critical thinking, communication, problem-solving skills, and computational competencies, among others) were nonnegotiables. The ALFI principles concur with these findings, affirming that learning outcomes must be firmly established in curriculum design, community/stakeholder input, assessment implementation, continuous improvement, and prior learning assessments to maximize the higher education experience for the lifelong learner (Tell, 2000).

Associated with learning outcomes are the student support systems which help to facilitate success for a nontraditional student. Students that created their own study groups stated that they found them beneficial (95% agreed or strongly agreed), and 96% of respondents (agreed or strongly agreed) utilized a support group to assist them with school. In contrast, 77% disagreed or strongly disagreed that mandatory group projects were advantageous. And 89% of these adult learners were in agreement (agreed or strongly agreed) that online courses were convenient and impactful.

The ALFI principles recognize that adult learners were more successful when support systems were provided as part of their learning experience. The ALFI principles noted that when colleges have large enrollments which cannot serve each student adequately, peer support and student cohort groups are an alternative to institutional support (Tell, 2000). That's not to say that some students do not benefit from support groups (4% do gain benefit from them), nor is it inferring that study groups are beneficial to others (5% find study groups advantageous). But unlike the ALFI principles, the ALAT study purports that informal, peer-initiated cohorts or support groups are overwhelmingly favored over formalized mechanisms.

Technology

One way to address issues of andragogy, student support, financial record keeping, advisement, and work-life-study balance is through the incorporation and utilization of technology for the adult learner. Only 1 in 4 students saw technology as a deterrent to attending school. Perhaps the use of technology at work, or social networking commu-

nication has become more ubiquitous than once thought. Online courses are seen very favorably (89% agreed or strongly agreed), and blended courses may be another option for the nontraditional student. Asynchronous online or blended (on ground and online modalities combined) learning may be one of the most effective ways to address the needs of the adult learner as they balance work-life-study demands (Robinson & Hullinger, 2008).

CONCLUSION

The ALAT study examined many of the ALFI principles across six regions of the United States, and found that there was tremendous concordance between these two documents. The needs of the American workforce are changing rapidly, and higher education needs to position itself to serve this group of lifelong learners. As universities utilize the recommendations proffered by this study and by CAEL, the unique needs of the adult learner will be addressed, resulting in a more educated and effective workforce in the United States and throughout the globe.

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Teaching and Learning Objectives: The First Step in Assessment Programs

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ABSTRACT

Currently traditional institutions of higher learning are facing more robust competition from alternative educational programs and non- traditional institutions offering certificates and degrees. In addition to this competition the programs offered by the traditional institutions of higher learning are being called into question by graduates; the parents of graduates and the potential employers of these graduates. Parents and graduates are questioning the cost /benefit of a college degree and employers are discounting the relevance of a GPA as an attribute for entry level positions. The authors briefly discuss the introduction of the Collegiate Learning Assessment Test (CLA+). The test is designed to be administered to graduating seniors and the test results will serve as evidence that a graduate possesses the skills considered to be essential by potential employers. The authors point out that the CLA+ is a summative assessment measure. They contend that assessment programs must also include formative assessment measures. The authors propose that assessment programs should be a continuing component of each and every class within each and every degree program offered by the traditional institutions of higher learning. Formative assessment efforts must begin at the level of the individual class and must be linked to statements of both teaching and learning objectives relevant to the course content. From an analysis of syllabi that were used in an introductory Marketing course, the authors have chosen to illustrate unsuitable teaching and learning objectives The authors point out the necessity of informing faculty members about the elements of effective and measurable teaching and learning objectives. The authors then present a series of teaching and learning objectives derived from their experience in revising an important introductory or portal course. .Finally, the authors contend that the structure and language of the teaching and learning objectives presented in the article can be generalized to programs and courses in a variety of academic disciplines and offer some suggestions for the conduct of assurance of learning (assessment) efforts.

INTRODUCTION

Internal Pressure for Assessment (Assurance of Learning)

Assessment, or better defined as Assurance of Learning Programs, were initially conceived and implemented by institutions of higher learning as a means of empirically illustrating that they were achieving the goals and objectives they had set for their programs. Earlier on, one could say that the impetus for these programs was internally generated. Somewhat later in time, accrediting agencies began to demand that institutions seeking initial accreditation or reaccreditation produce a systematic body of findings that clearly demonstrated the linkages between students' learning or performance outcomes and the goals and objectives the institution had formulated and made public.

External Pressure for Assessment (Assurance of Learning)

More recently institutions of higher learning have had to contend with additional external pressures stemming from a number of sources. Because they recognize the importance of the goals and objectives that many institutions of higher learning have designated as critical, government agencies that offer grants and current or potential corporate and individual donors who provide funds for the introduction of new and the maintenance of existing specific or general programs are insisting that institutions requesting such funding present evidence of assessment outcomes that indicate the goals and objectives made explicit in their mission statements are being met.

Institutions of higher learning have also experienced an increasing level of dissatisfaction expressed by graduates who find themselves deeply in debt (Salas & Loren 2014) and experiencing limited career opportunities because of a slow growth recessive economy. These graduates are experiencing a kind of cognitive dissonance (Festinger 1957) or buyer remorse and are evaluating the cost /benefit ratio of some college degree programs as negative.(The Week 2014) As one might expect, these graduates are joined in their dissatisfaction by parents who have had to absorb the ever increasing costs of tuition, fees and other expenses.

Additional competitive pressure comes from the growing popularity of what are known as Massive Open Online Courses or MOOC being offered by some very prestigious institutions of higher learning. Currently MOOCS are offered online and have essentially open enrollment with no limits on the number of individuals who can participate in all or parts of the courses offered. Also to be considered is the growing importance of "for profit" institutions that promote the more focused on line or in residence campus programs that they offer as having a direct connection with career employment opportunities. (Bady 2013; Savage 2013)

Traditionally considered as feeder schools for universities and colleges, the two year junior colleges, whose programs are funded by government at various levels, have been advised to adopt a near trade school mission and to offer more in the way of employment oriented programs. (Cancino 2013). Robert B. Reich has recently called for schools within the USA to adopt Germany's two year programs in manufacturing technologies.. These programs, beginning in the last year of high school and extending at least one year beyond, have successfully created employment opportunities for those students who are not interested in traditional college and university programs. These programs are reported as having a role in strengthening the German economy. (Reich 2013).This call for such programs was echoed in a longer article originally appearing in the *Washington Post* and reprinted in the *Chicago Tribune* (Schneider 2014).

The Entitlement Perception Paradox

Student perception of entitlement creates another problem in institutions of higher learning. The rationale for the perception of entitlement seems linked to the ever increasing costs of tuition and related expenses. Students are reported to have adopted a point of view in which they define themselves as "customers" and as such should dictate the outcomes of the educational transactions in to which they enter. (Schaffer, Barta & Stogsdill 2013) On the other hand, in the authors' experience, faculty members may vary in their expression of opinions regarding entitlement, but most business school faculty members, implicitly or explicitly, regard students not as customers but as the products that the institution produces. .

Where there is an absence of statements of specific learning (performance) objectives, students may tend to construct their own rubrics of fairness and their own perceptions of reality. For example, every faculty member has heard a student complain about a final grade and claim to deserve a higher grade because they studied hard; they were really motivated; they need to keep their GPA up; they attended most of the classes; they offered comments during discussion and so on and so on. Where there are defined and implemented objectives regarding the level of performance students are expected to demonstrate, the differences between what the students consider adequate performance and the levels of performance outlined in the course learning objectives may operate to eliminate or, at the least, lessen the entitlement frame of mind.

As mentioned above, students believe that accumulating a high GPA constitutes empirical evidence that they possess the abilities and skills required for entry into their chosen career fields. Some faculty members share that belief and will inflate grades because they think this will satisfy the graduates and provide them with a competitive advantage in what has recently become a climate marked by greater difficulty in the competition for employment opportunities. The motivation for such grade inflation may, in some instances, be engendered by political correctness or more simply and genuinely by a desire to be of assistance. In either case, or whatever else the motivation for grade inflation may be, the result seems to be the introduction of a paradoxical unintended consequence.

At one time potential employers might have shared a belief in the reverence for and the relevance of the GPA. A significant number of potential employers have, however, reported the experience of finding that students with high GPAs–even those from prestigious institutions of higher learning -cannot demonstrate an acceptable level of proficiency in what the employers recognize as skills such as basic mastery of content; a facility with quantitative methods; critical interpretive thinking and proficiency in both oral and written communications. (Belkin 2013)

Writing in the *Wall Street Journal*, Belkin (2013) also pointed out that a number of corporations have used assessment instruments of their own origination as a means of assuring that applicants are capable of, for example, writing well and making a rational argument. He quoted a senior vice president of a major corporation as saying that these abilities are often lacking even for students whose transcripts show a record of with high grades from prestigious schools. Belkin (2013) also reported that students who had no immediate intention to enter graduate programs had completed the GRE or GMAT and presented the resulting test scores to potential employers as evidence that they possessed the critical skills and abilities discussed above.

The Collegiate Learning Assessment (CLA+) Test

As discussed above there have been reports that potential employers of college graduates have begun to devalue the worth of some college degrees and to express skepticism about the credibility GPA's offered by applicants seeking employment.

In response to the skepticism surrounding the GPA as credible evidence of learning, there is a movement toward using a standardized post-graduation examination. Just as the SAT is used to establish that an applicant has the skills necessary for admission to a college or university, the proposed standardized test is designed to provide evidence that graduates have achieved a level of mastery of the knowledge and skills frequently specified in institutional statements of assessment objectives and, just as importantly, considered as requisite entry level skills by potential employers.

The post- graduation test is called the Collegiate Learning Assessment (CLA+) Developed by The Council for Aid to Education. The test has been used by 700 schools as a means of assessing how well the students at various levels are mastering requisite content and skills that are the objectives of higher education. (Klein, Benjamin, Shavelson & Bolus 2007; Chun 2010 Hosch 2012)

The purpose of the CLA + is to provide a student who successfully completes the test with a benchmarked report. The report can be considered evidence that the student who has taken and passed the test possesses a satisfactory measure of important skills such as mastery of content, ability in written communication and the capability for critical thinking. If not all, then certainly the great majority of institutions of higher learning, list the development of the aforementioned skills as desirable outcomes of the educational programs that they offer. And as noted above, these are the skills of particular interest to potential employers

Current plans for the Spring of 2014 call for seniors at 200 cooperating colleges to take the Collegiate Learning Assessment (CLA +) test. The test results will serve to supplement the GPA and other experiential evidence that applicants for employment submit as a components of their resumes.

Formative and Summative Assessment Measures

Assuming that the CLA+ test proves to be accepted and effective raises the question of whether institutions of higher learning will decide to adopt the test as a requirement to be completed by graduating students and the resulting score incorporated into the students' transcripts. A second question deals with whether the schools that adopt the CLA+ would, as a result of such adoption, consider abandoning their own internal assessment efforts and programs. This would mean that the institutions might very well come to rely exclusively on the CLA + and so, in a sense, outsource the work involved in providing evidence of the assurance of learning to an outside agency.

With regard to the issue of outsourcing, it is hard to imagine that a standardized test would be accepted as a sort of a universal one size fits all measure considered to be applicable to all college or university programs. In an effort

to achieve a closer fit between the content of the CLA + and the content of their programs, institutions of higher learning might propose a supplement to the CLA+ that entails the development of additional or alternative items to those in the standardized test. The objective of such additions, deletions and alterations of test items would be justified by an argument that these changes yielded information that is more focused and more relevant to the specific programs offered by the institution.

The problem with revising a standardized test by the addition, deletion or alteration of test items is that it violates the central norms of psychometric testing. If the original test is in any way revised, then the important attributes of its reported reliability and validity which traditionally insure the credibility of the results yielded by the test can no longer be applied. Whenever a standardized test is revised the reliability and the validity measures of the revision must be recomputed. (Campbell & Stanley 1966; Kassarjian1971)

It seems very likely that the CLA+ will prove to be an innovative and welcome addition as a supplement to assessment programs that are conducted within institutions of higher education. Individual class assessment measures administered over a program of study could be considered as formative measures. The results derived from administration of the CLA+ could, on the other hand, very well be considered to represent a summative measurement of assurance of learning. Considered together the formative and the summative measurements should supplement one another. (Centra1987) The combination of the two measurements should provide stronger supporting results. The results could then be presented as evidence of an active and sustained program for the assessment of student learning. Further the results would support the institution's mission and its vision of the knowledge and skill levels that its graduates should possess. References to the importance of the relationship between a mission statement, the goals and objectives an institution derives from it and the eventual outcomes achieved are ubiquitous. For example, even in a recent novel by Lee Child the central character says "That's no kind of mission planning"." A mission needs an achievable objective."(Child 2013 p.317). A view of the necessary features of a well stated objective is provided in Doran's (1981) classic article on the subject.

Objectives

Faculty members need to be aware of those teaching and learning objectives that are of primary importance to supporting the mission of the institution that the faculty members represent. It should be noted that in examining the publications distributed to constituents by institutions of higher learning one finds statements which incorporate a multiplicity of objectives. The University states its overall objectives, colleges within the university have their objectives, departments within the colleges have their objectives; programs within the departments have theirs and individual faculty member have their objectives. University objectives frequently deal with fund raising efforts; enrollment programs; issues of diversity in the student population and faculty mix; remodeling the physical plant programs and so on. College, departmental and individual course objectives should deal with the teaching intentions of the faculty members and the objectives that specify the learning (performance) outcomes expected of students.

Implementation of Formative Assessment Programs

The formative–summative delineation of assessment outcomes mentioned above assumes that institutions of higher learning have implemented an active and sustained program for the assessment of student learning. That is not always the case.

Some years ago our college assessment committee had its members contact approximately 50 colleges that the committee considered similar to our own and to inquire about the details of the assessment programs currently in place at these schools. Our intention was to establish some benchmarks against which we would compare our own program plans. The senior author was a member of the committee. Of the schools we contacted fewer than 10% of could honestly report anything that resembled a systematic program for assessment.

Each of the representatives our members contacted agreed that assessment was considered important by their institutions. Many of them reported that, with regard to assessment, they were planning to create a program or they were thinking about planning a program or they were planning to think about planning a program.

It seemed to us that these intentions to get started on a formal program of assessment had all the weight of the great majority of New Year resolutions. This and other experiences and discussions within our own college and with other schools confirmed the proposition that everyone believes assessment is important. The people we'd spoken to reported that they and their faculty colleagues were favorable toward the concept of assessment and the importance of an assessment program: they seemed to object only to its implementation.

Assessment: A Starting Point

There is an often cited quotation attributed to the Chinese philosopher Lao-tsu that reads: "A journey of a thousand miles begins with a single step". There are questions about whether Lao-tsu ever really existed but there are no questions about the veracity of the quotation. The important issue really is whether the first step is in the right direction: forward as opposed to oblique or sideways or in a circle. The figurative first step is the foundation of the journey. The literal first step is the foundation of all plans, programs and strategies. These first steps are the objectives that the plans, programs or strategies are expected to achieve. In this brief paper we discuss the importance of first steps in the creation and implementation of assessment programs. The senior author and colleagues have elsewhere made the case that assessment activities should be an integral part of each course in a university or college degree program (O'Keefe, Hamer & Kemp (2012, 2013)

In the papers cited above the authors expressed the view that assessment, beginning at first as a series of formative measures, could, over time, evolve into a summative program. At the time these papers were submitted for publication work on the CLU+ was underway and this work was cited in the reference lists but, as far as the authors knew, the test was not yet ready to be administered to graduating students at all institutions of higher learning. The authors (O'Keefe, Hamer & Kemp 2013) illustrated how the measurement outcomes relevant to the learning objectives formulated for an introductory class were related to the learning objectives stated by our university.

The authors advanced the premise that there should be a demonstrable relationship between the teaching and learning objectives prescribed for a given class. Measurements that exhibited acceptable levels of competence in meeting the learning objectives of individual courses should be reported. Because the course learning objectives were aligned with the overall educational objectives stated in the institution's mission statement, the alignment should allow measurements that would provide evidence for the assurance of learning. The authors O'Keefe, Hamer & Kemp (2012, 2013) also took issue with the frequently expressed viewpoint that, in and of themselves, final course grades and the final GPA provided a sufficient measure of assessment. As we noted earlier a significant number of potential employers have also actively disputed this viewpoint.

The starting point–the first step–in building a credible program for the assessment and assurance of student learning requires that each and every course in each and every program offered by each and every department within a college include in the course syllabi a listing of both the teaching and the learning objectives agreed to be relevant to that course. That demand sounds both obvious and easy. In the section to follow we document that, in the process of revising an introductory course, it was neither obvious nor was it easy for faculty members to formulate sound teaching and learning objectives.

The process of revising our introductory or portal course (Berry, Cook, Hill & Stevens, 2013) involved the program of sequential activities that are outlined in Table 1 (O'Keefe & Lopez 2013). Our department

Table 1
Steps in Forming Course Teaching and Learning Objectives

1	The committee members collected a representative sample consisting of 13 syllabi that had been used for the 301 course.
2	The syllabi were deconstructed into sections dealing with: Textbooks;Teaching and Learning Objectives; Content; Examinations & Projects.
3	A content analysis was performed in the interests of listing similarities in the Teaching and Learning objectives listed in the syllabi.
4	The completed list was distributed to instructors scheduled to teach the course over the coming year. The instructors were asked to delete inappropriate objectives.
5	Based on the outcome of the first evaluation round, a second list was assembled and forwarded to faculty who were asked to accept or reject the inclusion of the objectives in the course syllabus.
6	The results of the vote were distributed to the faculty members scheduled to teach the revised course.
7	The chair contacted the faculty members to inform them that no objectives related to oral and written communication had been included in the list so far compiled. The chair reminded the faculty that improvement in communication skills was a University objective.
8	The chair communicated with the faculty members and pointed out similarities and differences and drew attention to the significance of differences between Teaching and Learning objectives.
9	The chair submitted final lists of Teaching and Learning objectives to be considered for inclusion in the common course syllabus.
10	The faculty members endorsed the lists of Teaching and Learning objectives compiled by the committee members.

offers between eight or nine sections of our introductory course in each of three academic terms and an additional four to six sections over two Summer school periods. A number of these course sections are assigned to adjunct faculty. We began by collecting copies of syllabi used by faculty over the most recent two year period. The syllabi were deconstructed and, for purposes of comparison, divided into content areas. We compared the texts that were assigned; the organization of the course; the additional reading materials; the projects assigned and the teaching and learning objectives listed in each syllabus. In deconstructing the syllabi that were in use we expected to allow that there would be variations attributable to what could be interpreted as academic freedom. The comparative results of our deconstruction efforts yielded a state of affairs that seemed well beyond what we understood to be academic freedom and tended to be closer to academic anarchy.

An introductory or portal course sets the direction for the remainder of the students' programs of study. The topics and applications presented in the introductory courses must be relevant for those students who intend to major in the field of study represented by the course as well as for those students for whom the course serves as a requirement for the completion of their degree program. That perspective demands an effort toward assuring an agreed upon degree of standardization of the content offered in all sections of a portal course such as Marketing 301 and the portal courses offered by each of the departments within the college. Because of variations in the experiences and preferences of the instructors assigned to teach a portal course, complete uniformity of all aspects of the course is simply not possible. The tradition of academic freedom supports these essentially minor variations in the flow and coverage of topics within the course.

Similarities in the majority of the key components of the introductory course, however, are possible and worth pursuing. Our efforts to revise our introductory course resulted in the adoption of a uniform text; agreement on the essential and discretionary topics to be covered and agreement on the structure and substance of assigned written reports. These results were achieved because, before anything else, we arrived at standardized sets of teaching and learning activities.

This first step involved a thorough examination and content analysis and evaluation of the teaching and learning objectives incorporated into existing course syllabi.

The teaching and learning objectives seen in Table 2A and 2B were taken from the syllabi we had collected and deconstructed. These were presented to a group of seven experienced full time faculty members for evaluation. The authorship of these objectives was kept anonymous. We asked the faculty members to vote on whether an objective should be given further consideration. Tables 2A and 2B exhibit a number of the objectives that were immediately rejected and the rationale behind their rejection.

Table 2A
Some Examples of
Unsuitable Teaching (T) Objectives*

1	Knowledge of how marketing operates in the individual organization.
2	The ability to apply your knowledge of marketing operations in both the domestic and the international market environment.
3	An insight into how marketing can help you personally.
4	You will understand the role of marketing within society and within an economic system.
5	Enjoy learning how to develop skills in researching about organizations and their industries.*
6	Learn how to present oral and written marketing materials.
7	Learn basic marketing strategies including SWOT analysis.

*(Chosen from a Collection of Marketing 301 Syllabi)

Table 2B
Some Examples of
Unsuitable Learning (L) Objectives

1	Develop effective oral and written communication skills.
2	Develop team skills in solving business problems.
3	Students will develop an understanding of the fundamental upstream and downstream issues that confront firms along the value chain.
4	Have fun while developing an understanding of the fundamental concepts in Marketing.*
5	Find out how organizations analyze marketing strategies and competitor analysis.
6	Learn how to present oral and written marketing materials.
7	Apply the basic elements of marketing strategy to business challenges and exploit the relationship between these elements.

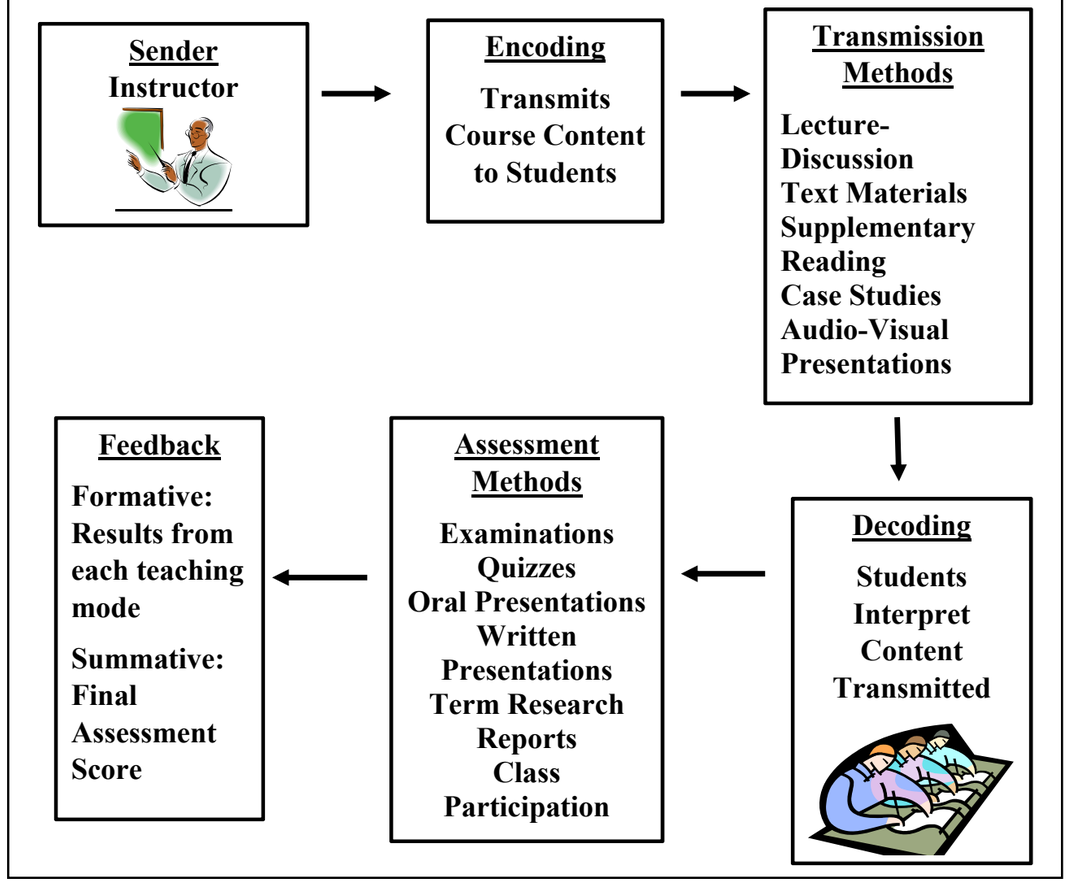
Chosen from a collection of Marketing 301 Syllabi

The problem with almost all of the statements presented in Tables 2A and 2B is that, rather than statements of measurable teaching and learning objectives, they are little more than statements of intentions. They are well meaning statements but as objectives they are meaningless. To be considered as valid, teaching objectives should be broad statements of what the instructor intends to accomplish and include the means by which he or she is to pursue that accomplishment. A valid learning objective is built around the methods and the actions involved in collecting and analyzing tangible evidence of students' performance that verify the instructors' stated intentions. The actions discussed here are illustrated in the classic traditional model of communication which is presented as Figure 1.

The Traditional Communication Model: Teaching and Learning Objectives.

Figure 1 represents the traditional phases of the communication model as presented in introductory marketing texts, for example, (Boone& Kurtz, 2012 and Kotler and Armstrong 2013). In the framework of the model the sender (the instructor) encodes the message to be delivered to the receiver (the student). Encoding means simply organizing the course materials in a form that the instructor assumes the students can understand. The instructor must choose a medium to use in presenting the materials. The objectives we list in Tables 3A and 3B of this report make specific reference to a number of presentation media. Note that the teaching objectives in Table

Figure 1
A Communications Model Relevant to Assessment



3A specify a variety of media choices: lecture discussion sessions supplemented by text materials; readings; case studies; video and other audio visual presentation materials. The students are expected to encode the information presented via these media sources and to provide feedback that validates that the information has been understood. As shown in Table 3B the feedback takes the form of the student's performance on examinations; quizzes; oral and written assignments; reports and class participation. These measures are the operational definition of assessment or assurance of learning

Table 3A includes the seven teaching and Table 3B the seven learning objectives that the members of our course revision team agreed would be presented in the syllabi for each section of the revised introductory course. The point to note is that, as presented, the teaching and learning objectives make a distinction between what is expected of the instructor and what is expected of each student. The instructor, via the array of course materials that are assigned and presented using several media, directs the students to the key points of the class and the students, via a variety of related performance measures, demonstrate mastery of those key points.

It should be noted that the statement of each teaching objective begins with the key word "*direct"* and each learning (performance) objective begins with the key word *"demonstrate"*. There are seven teaching objectives and seven learning objectives. We considered that outcome as a tribute to George Miller's (1956) classic article about the magical number seven.

Figure 2 shows the generalized assessment validation model. The mission of the college or university suggests the measurable objectives. The objectives dictate the methods needed to provide evidence that validates a predetermined range of results that are considered to be evidence of assurance of learning. The institution's mission statement expresses its superordinate goals. From these goals instructors derive the overall teaching and learning objectives for the classes they are assigned to teach. Validating the achievement of the learning objectives requires

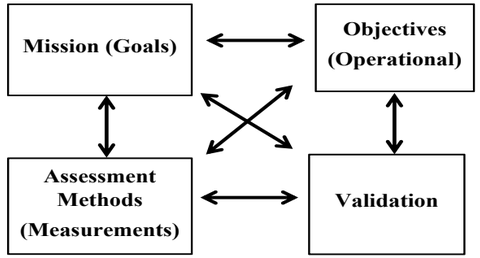
Table 3A
Teaching Objectives Presented in the Revised Syllabus

Teaching Objectives	
By employing lecture-discussion sessions; text materials; readings; video and other audio visual presentation materials presented to students, instructors teaching Marketing 3Ø1 will direct students toward:	
1	Developing an understanding of the fundamental concepts involved in marketing planning and programs.
2	Developing an understanding of the vital role of marketing planning and programs within a firm.
3	Developing an understanding of the relationships between marketing and other functional areas of business.
4	Developing skills in scanning the external environment and appraising internal perspectives for measuring the strengths and weaknesses of a business from a marketing viewpoint.
5	Developing skills in the analysis of competition in the planning and analysis of marketing strategy.
6	Developing an understanding of the informational and analytic sources of information necessary to the preparation of marketing plans.
7	Developing an understanding of the critical role of oral and written communication skills in business practices.

Table 3B
Learning Objectives Presented in the Revised Syllabus

Learning Objectives	
As measured by examinations; quizzes; oral and written environmental scanning and planning assignments; reports and class participation, students completing Marketing 3Ø1 are expected to:	
1	Demonstrate the ability to recognize and to recall basic marketing terms and concepts.
2	Demonstrate familiarity with the basic elements of marketing plans and marketing strategies.
3	Demonstrate an understanding of the controllable and the uncontrollable variables relevant to the success or failure of marketing programs, strategies and tactics.
4	Demonstrate an understanding of the role of competitive advantage in the formulation of marketing plans, strategies and programs.
5	Demonstrate the ability to bridge concepts discussed in text materials and these same concepts appearing in both academic and practitioner publications and in the popular press.
6	Demonstrate the ability to locate and integrate informational and analytic sources of information.
7	Demonstrate effective oral and written communication skills in articulating business reports.

Figure 2
The Assessment Validation Model



that these objectives are operationally defined that is, they lend themselves to acceptable measurement methods. The outcome of these measurements must provide documentation that the stated assessment (assurance of learning) objectives have been met. As the model points out, its major elements are symmetrical and mutually supportive. The learning objectives stated for each individual class are derived from the goals explicitly declared in the institution's mission statement.

The objectives are consistent with the mission statement; the measures used to establish assurance of learning are consistent with the objectives. An outcome that provides acceptable evidence of the assurance of learning validates the objectives stated for the class and those stated by the institution's mission.(O'Keefe, Hamer & Kemp 2Ø12;2Ø13).

In the approach discussed in this paper our objectives deal with three primary elements. We set out to assure that via a testing protocol common to and consistently measured within all sections of the introductory course we could show assurance of *Mastery of Content*. Further, as shown in Table 4, we set out to assure that within all sections there would be common assignments that would allow us to demonstrate assurance of both *Critical Thinking* and *Improvement in Communication Skills*. These objectives are important components our own and of any number of mission statements put forward by institutions of higher learning. Beyond that, as discussed earlier in this paper, these objectives are relevant to the skills that employers evaluate as requirements for career entry and development.

In summary we suggest that, within all academic disciplines, instructors assigned to teach a given class, cooperate by coming to conclusions regarding the common objectives they will work to accomplish and the methods they will use in pursuit of those objectives. And once the teaching objectives are set, the instructors must agree on common methods for measuring student performance.

Table 4
Further Information Regarding Course and Assessment Implementation

The following points were communicated to faculty members scheduled to teach the revised 3Ø1 course.	
1	We will be using a customized text.
2	The syllabus must contain the seven teaching objective and seven learning objectives agreed upon by the committee.
3	The choice of content to be presented is not completely discretionary.
4	Concepts agreed by the committee to be "essential" must be included.
5	The arrangement of the chapters to be presented is left to the individual faculty members.
6	Common test questions incorporated as a series of SRAIs (quizzes) will assure coverage of essential topics and will provide an empirical base for an assessment report. Students must submit an individually prepared Environmental Scan report.
7	Students will submit an individually prepared Environmental Scan report.
8	Student groups must submit a Marketing Plan reports
9	Outlines for both the written reports must be included in the course syllabus.
1Ø	Implementation will commence in the Autumn Quarter of 2Ø13/14.

The outcomes of these performance measures can then be considered as evidence of assurance of learning. In what follows we add some additional suggestions formulated during the course revision process discussed in this paper.

Other Suggestions:

1. The institution should make assessment as important an activity as recruiting and development.
2. The institution must create an organizational and administrative function that oversees assessment programs.
3. In cooperation with its program and departmental administrators the institution must assure that formative assessment measures are a component of each course.

4. Departmental and program administrators must assure that, especially for their introductory and portal courses, all instructors agree on both the teaching and learning objectives and on the methods to be used to document assurance of learning.
5. The Institution should study the outcome of administrations of the CLA+ examination.
6. Each department or program should decide on a method for a summative assessment to assure that students preparing to graduate can demonstrate mastery of content. Students who successfully demonstrate a level of knowledge of content and skills prescribed by the departmental or program faculty, should be presented with a certificate documenting that achievement.
7. Finally, the department and program administrators should require that students maintain an E portfolio of coursework assignments and projects that, along with the certificate mentioned above, can be presented to potential employers as an experiential supplement to their transcripts and resumes.

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Say "Yes and" to students learning teamwork! Using Improv in the college classroom to build teamwork skills

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ABSTRACT

Teamwork and the ability to work collaboratively on a team are important skills in almost every industry or profession. The use of student teams in college courses is increasing and most academic programs require teamwork as part of the students' academic learning experience. While teamwork and other experiential collaborative learning opportunities are valuable pedagogical strategies, research suggests that little or no student instruction or preparation is provided to teach students how to be an effective team member. Without appropriate preparation from faculty, students focus only on accomplishing the products of the team or attending to the logistical considerations. Students may miss the opportunity to build the collaborative skills and relationships necessary to be an effective team member both in academic programs and in the workplace. The ability to serve as a collaborative team member is viewed as an important attribute in not just academic programs, but valuable in most careers, as well.

Recognition of the value of improvisation or "Improv" is growing in the business world, yet literature on the use of Improv in college courses is limited. Improv is by nature very inclusive and interactive. Improv involves making the best use of the resources already available, especially human resources, by supporting each other and collaborating on ideas.

This paper shares a case study exploring the use of four Improv exercises in a Masters of Business Administration (MBA) course with the intent of enhancing students' learning about teamwork skills. Based on the basic premises of Improv, the exercises are used to prepare students for engaging in effective teamwork. Students enrolled in a Management Theory and Application course are assigned a team project. Prior to working on the projects, students self-select teams and create a Team Agreement. The Team Agreement serves as the entrance to explore essential considerations in teamwork. MBA students participate in four Improv exercises. The Improv exercises, the purpose, and the students' reactions are shared. This paper further discusses the need for continued student preparation in teamwork.

TEAMWORK AND STUDENT PREPARATION

Teamwork and the ability to work collaboratively on a team are important skills in almost every industry or profession. Teamwork and collaborative skills have been listed as essential attributes by many employers (Main 2010) and these skills span throughout many vocations. Much of the literature and current practices related to teamwork have more to do with managing teams' productivity and outputs rather than focusing on providing individual team members with training, experiences or other necessary preparation to perform effectively and collaboratively as a team member (Drake, Goldsmith, & Strachan 2006). Without instructional or experiential preparation in teamwork or collaborative processes, team members may be driven by the task, but not achieve optimal results (West 2000).

Teamwork can be defined as the collective behaviors that enhance the effective functioning and outcomes of the team (Main 2010). One of the most enduring theories related to groups and teams was first identified by Bruce Tuckman in 1965. According to Tuckman, there are sequential stages of group development related to team performance. These stages, forming, storming, norming, and performing correspond to progressions or milestones

for the team. Teams may or may not proceed through the stages in a sequential pattern. The team's progression, according to Tuckman, relies heavily on the level of the team members' skills to work collaboratively as a member of the team.

The use of student teams in college courses is increasing. Most academic programs require teamwork as part of the students' learning experience. There is growing literature to support that working in teams is a valuable pedagogical strategy and that collaborative learning is extremely effective for a wide range of content and differing learning levels (McKeachie & Svinicki 2006). While teamwork and other experiential learning activities contribute to student learning and retention, it does not necessarily happen automatically. This learning experience is most effective when faculty carefully prepare students for the experience and guide them through the collaborative process (Knowles, 1975; Kolb, 1984; Schroeder, 1993).

While teamwork activities and assignments are increasingly utilized across the curriculum in college programs, few faculty provide preparation or training for students on how to serve as an effective team member (Vik 2001). Too often, faculty emphasize only the outcome of the teamwork and fail to explicitly prepare the students with the necessary collaborative process skills for functioning on a team. According to a survey from San Jose University, faculty routinely explain to the students that learning to work on teams is important. Yet at the same time, 81% of the faculty reported giving "modest, limited, or no instruction" to students about working on teams (Bolton, 1999). Further, Snyder (2009) discussed that professors prepare students for an array of assignments and activities through lecture, reading, discussion, tutorial work and other means but similar preparatory information or activities to teach students how to collaboratively work on a team is not available.

Snyder (2009) found that student preparation to work collaboratively or other lessons related to teaching students about how to engage in teamwork were vastly overlooked. While students routinely receive information to prepare them to complete the content work of the assignments, little if any direction is given on the process or collaborative work. Most students are left to "sink or swim" as most instructors simply assign students to work in teams and provide information and instruction almost exclusively on the expectations of the team products (Vik 2001). Students are expected to learn how to engage in teamwork, yet they are rarely taught.

ENTER IMPROV

Recognition of the value of improvisation or "Improv" is growing in the business world, yet literature on the actual use of Improv in college courses is limited. Improv can be defined as "conception of actions as they unfold drawing on cognitive, affective and social resources" (Kamoche, Cunha, & Cunha, 2002). Keefe (2002) added that improvisation is "making the most of what resources you have".

Improv is by nature very inclusive and interactive. Improv involves making the best use of the resources already available, especially human resources, by supporting and collaborating on ideas. Collaboration, communication, adaptability, and other team-building skills are practiced and enhanced using Improv. Two international Improv companies, Second City and On Your Feet, are experiencing a significant increase in workshop requests from an array of industries and employers including Nike, Disney World, MasterCard, and Deloitte. These requests, representing real world employer needs, are all related to enhancing skills in collaboration, communication, adaptability and creativity.

Introducing Improv in the classroom can be somewhat frightening for both students and faculty. Faculty are used to having control of the classroom and discussions. Students are used to the faculty taking control. With the use of Improv, control is shared and fluid. It is difficult, if not impossible, to predict what will happen during Improv exercises. Still, it is extremely important to prepare the students for the experience by sharing some of the basic premises or guidelines for maximizing the use of improvisation.

Basic Improv guidelines, according to Gee and Gee (2011) include:

- "Yes, and"

"Yes, and" means accepting and building on the ideas of others. It is considered the core and most important element of Improv and provides the foundation for moving all ideas and actions forward. When an idea is put forward by a team member, other members accept the idea and add other information and insights to move the idea forward.

- Support and Celebrate the Contributions of Others

Supporting and celebrating the contributions of others is about helping all the members of the team look and feel good about their contributions. This is done through both verbal and nonverbal communication. When team members feel encouraged by each other, rather than competitive with each other, creativity and collaboration are unleashed.

- Suspend Judgments

Being open to new ideas and viewing ideas in novel ways facilitates moving ideas forward. Criticism of ideas holds them back. An Improv mindset is supportive and nonjudgmental. A supportive environment can uncover new insights and new energy.

- Take Risks

Improv can push individuals and teams out of their comfort zone. They have to try to do things in new ways. These opportunities can promote both personal and team growth. Approaching tasks from the same way leads to the same results. Encouraging and supporting risk-taking and relying on the ideas of someone else can lead to improved results. All learning and insights are viewed as success. The only failure in Improv is to not try.

- Display Enthusiasm

Energy and enthusiasm are contagious. Displaying high energy and enthusiasm is a choice. Choosing to display high energy and enthusiasm requires conscious commitment. Model high energy and request team members to do the same.

According to Berk and Trieber (2009) improvisation is a valuable teaching tool in the classroom and has many benefits including promoting interdependence and trust among students. Further, improvisation exercises actively engage students in the learning process and this opportunity fosters deeper learning.

FACULTY PREPARATION

Saint Xavier University is a nationally recognized mid-sized private institution serving more than 5,000 students. Saint Xavier University's mission is to educate men and women to search for truth, to think critically, to communicate effectively and to serve wisely and compassionately in support of human dignity and the common good. Effective communication, serving wisely and compassionately is at the core of successful teamwork. Like many institutions of higher learning, Saint Xavier University, and especially Saint Xavier University's Graham School of Management, requires students to work in teams in several courses.

As faculty within the Graham School of Management, we want our students to be skilled practitioners in the workplace. Thus, in addition to learning the content of the courses, and as part of our mission, we want to prepare our students to be responsible leaders and engage in effective management practices. Effective management practices would require skillful teamwork capabilities.

In an effort to provide an opportunity for our students to learn more about teamwork and collaborative skills, we decided to incorporate some Improv exercises into selected courses within the Graham School of Management. To prepare ourselves to utilize Improv for these learning experiences for our students, we first completed several levels of Improvisation courses through Chicago's Second City School of Improvisation.

IMPROV IN THE MBA

Most of the students in Saint Xavier University's Graham School of Management Masters of Business Administration (MBA) program are working professionals and take MBA classes in the evening and / or weekend. The MBA program generally takes two or three years to complete, depending on the students' course load. Management Theory and Application is one of the first required courses our graduate students take as part of the MBA program. Because it is an entry course for the MBA program, the Management Theory and Application course appeared to be a good choice to first incorporate the Improv exercises.

The purpose of the Management Theory and Application course is to examine the effective management of people in organizational settings. The students in the Management Theory and Application course are often current, new or aspiring managers hoping to improve their professional and managerial skills. Within this course, one of pedagogical strategies involves requiring students to work in self-selected teams, to establish team goals and guidelines, then evaluating the team's performance.

On the first evening of class, along with receiving the course syllabus, students were introduced to the details of the major course project. To complete this course project, they need to select team members within the first two weeks of class. Students openly or privately complained that working on a team can be overly challenging. Many commented they would prefer to work independently. There is a perception that working on a team can decrease their ability to be productive. At the time the team project is introduced, we also discussed the parameters of evaluating teams and the team experience. We discussed the importance of creating a "Team Agreement" that would include how to accomplish the work product and also establish a process to be collaborative, supportive and to address problems. Students are required to create a "Team Agreement" with their team and submit it before the third week of class, along with their team roster. The students use their Team Agreement as the framework for evaluating the team experience at the end of the term.

At this point, students are not given much additional direction about what should be included in the Team Agreement. The submitted Team Agreements generally contain only outcome, logistical and operational information. For example, the Team Agreements asserted that the members would complete the team project by the due date, stated the requirement of members to attend team meetings, provided specific commitments for reading schedules with dates, and often identified an acceptable time frame for responding to emails or other contacts. Students did not list any process or interaction considerations in their Team Agreements.

By the third week of class, all student teams have submitted their Team Agreements. The students are asked if they believe their Team Agreements are complete, comprehensive and will assist them in having an improved team experience. They all quickly agree their Team Agreements are very comprehensive. It is at this point, the Improv exercises are introduced. Two exercises are introduced that same evening and two more are introduced over the next two class meetings.

LEARNING ABOUT TEAMWORK THROUGH IMPROV

No, but or Yes, and…?

The first Improv exercise is called "No, but or Yes, and?". It is built on a combination of three of the Improv guidelines of "Yes and, Support and Celebrate the Contributions of Others, and Suspend Judgments" as described earlier. This exercise happens in two parts. In the first part, students, working within their teams, are assigned a role. One student will be asked to propose ideas that they may be able to use for their project. Another student will be asked to listen to the ideas, and find reasons to critique or reject every idea that is proposed. No matter what the idea is, they will critique and reject it. The remaining student or two serves in an observer role. Observers will report to the entire class on what they viewed at the completion of the exercise. This first part of the exercise runs for about five minutes. At the end of the five minutes, observers report what happened in their teams. Typically, they describe the decrease in energy after the first few ideas are proposed and "shot down". They describe that the team began feel tension and there was a sense of being "stuck". Frequently, without being asked, the students who were assigned the role of proposing ideas volunteer that they felt both defeated and slightly angry, even though they knew their team member had been assigned this role of rejecting ideas. Comments generally include "It made me want to stop trying" and "it became really draining".

In the second part of the exercise, there is one significant difference. The students who were assigned the roles of critiquing or rejecting ideas in the exercise now are asked to respond "Yes" to each idea proposed, articulate something that they really liked about the idea, and then offer something additional ("and") that would build on the idea. Again, the exercise runs for about five minutes. The energy level in room is noticeably different from the first part of the exercise. Instead of winding down on their own, I have to stop the students and remind them it is time to share with the entire class. Students commented "This was fun, I really enjoyed it and we got some great ideas for our project." The observers describe how the energy in the team increased. Sometimes, observers admitted to stepping out of their role by offering ideas too. As one observer shared, "I got caught up in the momentum". The students assigned to the role of proposing ideas commented that it was a much more positive and energizing experience. In the second part, they had even more ideas to propose, comparing that in the first part of the exercise when they described they were "running out of ideas".

As a debriefing, the entire class engaged in a discussion about how their experiences in this Improv exercise related to serving on a team. We discussed what behaviors, orientations, and words facilitate the team moving forward and which of these impede a team's progress. Students are asked if they had included any guidelines or considerations for facilitating the team's process in their team agreements. Most students readily admitted they did not.

Tell Me What Happened!

Another Improv exercise "Tell Me What Happened!" is built on the Improv guideline "Display Enthusiasm". This exercise has two parts. In the first part of the exercise, students are asked to keep silent and to visualize something that had happened to them in the last year that had made them extremely happy and to also visualize something that had happened in the last year that they found very frustrating. In the second part of the exercise, students are then asked to break into pairs within their team and share just one of those two experiences with a partner. However, they must remain silent and use only nonverbal communication to share their experience. They are given five minutes to share their experience with their partner, each taking a turn. At the end, each of the partners will then be asked to share as much as they can about their partner's experience.

Without exception, each student was accurate in identifying if their partner was conveying a happy experience or a frustrating experience. Further, students are often able to perceive actual facts about the situation. For example, students could understand if their partner had a disagreement at work or had experienced the excitement of a new addition to the family. No words were necessary for students to convey this.

As a class, we discussed how none of these experiences shared had actually happened during our class time, yet, we were able to bring out the appropriate emotion, energy and enthusiasm to make our experiences real to our partners. We were able to make our partner see we were happy or frustrated. Our displayed emotions, energy and enthusiasm are choices we make. We can manipulate them to fit our needs. We also discussed how important nonverbal communication can be and how expressive it is to make appropriate use of eye contact. As one student commented, "when my partner kept eye contact with me I knew she was really focused on me and trying to understand me." The energy and enthusiasm facilitated the ability to communicate and share an experience. Students are asked if they included any considerations about enthusiasm or energy in their team agreements. They respond they did not, but acknowledge it would be beneficial to add considerations related to being enthusiastic about the work, being open to, and accepting of ideas.

Make a Change!

Another worthwhile Improv exercise, "Make a Change!" underscores the interdependence of members on a team and is built on the Improv guideline of "Taking Risks". In this exercise, students standing in their teams form two lines facing each other. Team members are in the same line next to each other and students in the class are across from them. The two separate lines are asked to identify the person directly across from them in the opposite line. The person across from them is now their "partner". Partners are asked to take note of each other's appearance for thirty seconds, and then they turn their backs to the opposing line. While their backs are turned from the other line, students are instructed to change four things about their appearance. They have thirty seconds to do this, and then they are to turn and face their partners and describe what changes have been made. This activity is repeated several times. Students are instructed that the same change to their appearance cannot be repeated. For example, students cannot simply keep rolling up and down their shirtsleeves. Once done, they need to find something else to change.

In the first two or three rounds of this exercise, students easily find things to change about their appearance. They remove glasses, roll up shirtsleeves, change the part in their hair, kick off a shoe, untie their tie, unbutton a cardigan sweater, etc. However, by the fourth or fifth round, students begin run out of ideas. Some students will comment "there is nothing else to change". The exercise continues although the students' energy is beginning to lag. At some point soon, one of the students will suddenly turn to a team member and ask to borrow an item to change their appearance. A team begins to exchange glasses and cardigans and realizes they have just opened a wealth of new possibilities among the team members. When that happens, all of the students excitedly begin exchanging items to change their appearance. The students' energy is high again. That becomes the last round of the exercise.

In debriefing the exercise, students are asked how this exercise related to teamwork. Comments included "Trying to do it by myself was hard" and "Working with others gave us a lot more possibilities, we all had something different to add". As one student shared, "It made me think that I need to be more mindful of reaching out to others rather than always solving things on my own."

Fill in the Space!

An Improv exercise that builds on the guidelines of Support and Celebrate the Contributions of Others and Taking Risks is called "Fill in the Space". For this exercise, students are in their teams but interact with members of the entire class. Chairs and tables are moved to the side so the center of the classroom is empty. A designated area at the center of the classroom is described to the students as some common place, for example, the top of an empty desk. Students are asked, in teams to represent something that may be on top of the desk. However, once an item is represented, it cannot be duplicated. If one student is a "pencil", no other student can be a "pencil". Students in teams represent a 'theme". If the first member of their team is a "coffee cup", the next member of the team must represent something related to a "coffee cup". Only the first member of the team is allowed to speak. The first member of the team is allowed to state, in one word, the item they are representing. Other members of the team silently support the initial idea of their team member. One by one, the students move to the designated area and physically represent items. After all of the students are representing items and placed within in the designated area, each student then states what item they represent. If the first team member was a "coffee cup", the second team member may be a "saucer", lying on the floor next to the "coffee cup" and another team member may be a "spoon" leaning next to the "coffee cup" and another team member may be a "sugar bowl" standing next to the "coffee cup".

This exercise is both mentally and physically creative. Students have to come up with an idea and physically represent an idea in a space. This pushes students out of their comfort zone but frequently ends with students laughing. After the exercise, students discuss what they learned about teamwork. Common observations include "I had

to build on an idea that I did not come up with, but it worked" and "I had to dig deep and then put everything I had into it to make it believable". There are also some especially insightful observations, for example, "Once a team member made a decision, it may use up a lot of the team's energy to try to take it in another direction. You have to ask if it is worth it to change direction, or is the energy better used trying to make that decision as good as possible."

TEAM AGREEMENTS AND TEAM EVALUATIONS

As noted earlier, students submitted their Team Agreements prior to participating in any Improv exercises. After the first two Improv exercises, students were given the option to revise their Team Agreements and resubmit them the following week. Every team chose to revise their Team Agreements and added new considerations related to process and interaction. For example, instead of just listing that the "team members will attend team meetings" they now include " team members will be open to and supportive of ideas from all team members" and "team member will bring their course materials and their energy to team meetings". Students are becoming aware that being an effective team member requires more than simply showing up at the meeting.

At the end of term, students individually submit a written summary and evaluation of their team members' contributions and their team experience. In previous years, students' comments would mostly be somewhat measured and narrow. Most students would report their teams were "fine" or "worked as expected." They evaluated the team based almost exclusively on deadlines, commitments, and outcomes. Occasionally, they commented that one specific team member was "difficult" or did not keep some of the assignment commitments.

Since utilizing Improv, the narratives appear to be more inclusive and positive. Their framework for evaluating the team and the team experience is broader. While there are still occasional comments about deadlines and assignment commitments, there are also new comments emerging. Comments related to listening to and learning from each other, building on each others' skills, and contributing to the team meetings being energizing and motivating, are much more frequent. As noted earlier, the majority of the MBA students are working professionals. Some of the students have commented that they suggested the use of some of these exercise at their workplace to work better as a department or professional team.

LEARNING FROM IMPROV

Participating in these Improv exercises, along with the debriefing discussions, provided students with an opportunity to view the importance of process and collaborative issues in teamwork. Process and collaborative considerations should compliment, not supplant, the operational and logistical issues students identify as key teamwork considerations.

Providing preparation and practice for students prior to working in teams appears to have helped the MBA students enjoy a more positive team experience. Further, after participating in these exercises, the students broadened their view on the considerations and competencies necessary for effective teamwork. Having the opportunity to both practice and reflect on these skills provided the students a new way to approach teamwork not only in the classroom, but in their professional world, as well. According to Gee and Gee (2011), the most important learning from Improv can take place through the questions that connect the competencies in Improv to the participants' work life. The real life connections will encourage students to continue to hone and apply these new skills.

Further exploration and research is necessary to know definitively if the preparation and practice in teamwork can lead to better team performance and an improved team experience. Additional exploration will be needed to include undergraduate students. However, for the immediate future, it may be a good idea to say "Yes and" to students learning about teamwork.

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Academic Business World (ABW) sponsors an annual international conference for the exchange of research ideas and practices within the traditional business disciplines. The aim of each Academic Business World conference is to provide a forum for the discussion of research within business and reference disciplines in the social sciences. A secondary but important objective of the conference is to encourage the cross pollination of disciplines by bringing together professors, from multiple countries and disciplines, for social and intellectual interaction.

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We encourage the submission of manuscripts pertaining to pedagogical topics. We believe that much of the learning process is not discipline specific and that we can all benefit from looking at research and practices outside our own discipline. The ideal submission would take a general focus on learning rather than a discipline-specific perspective. For example, instead of focusing on "Motivating Students in Group Projects in Marketing Management", you might broaden the perspective to "Motivating Students in Group Projects in Upper Division Courses" or simply "Motivating Students in Group Projects" The objective here is to share your work with the larger audience.

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We encourage the submission of manuscripts pertaining to the administration of academic units in colleges and universities. We believe that many of the challenges facing academic departments are not discipline specific and that learning how different departments address these challenges will be beneficial. The ideal paper would provide information that many administrators would find useful, regardless of their own disciplines