

PROCEEDINGS

OF THE TWENTY SECOND ANNUAL

SOUTHWESTERN BUSINESS ADMINISTRATION TEACHING CONFERENCE

TEXAS SOUTHERN UNIVERSITY JESSE H. JONES SCHOOL OF BUSINESS

HOUSTON, TEXAS

OCTOBER 30 – 31, 2014

22nd Annual Southwestern Business Administration Teaching Conference

Name	Institution
Felix Ayadi	Texas Southern University
Kelley Bailey	Florida A&M University
Charles Briggs	Southern University of New Orleans
Ladelle Hyman	Texas Southern University
Rahim Quazi	Prairie View A&M University
Dale Rude	University of Houston
Karma Sherif	Texas Southern University
Naveed Saleem	University of Houston – Clear Lake
S. Srinivasan, Conference Chair	Texas Southern University
John Williams	Texas Southern University

Program Committee

Preface

The 22nd Annual Southwestern Business Administration Teaching Conference was held at the Jesse H. Jones School of Business at Texas Southern University in Houston, Texas. We had a full day of presentations on October 30, 2014 and half-a-day of presentations on October 31, 2014. There were a total of 40 presentations at the conference. A booklet consisting of the Conference Abstracts was distributed to all attendees. It is also available through this web site. Of the 40 presentations, we received 11 full papers from the authors. All presentations were accepted after a review by two academics. The submissions included in this Conference Proceedings reflect the final versions of these documents after the reviewers' comments were incorporated.

Houston, TX November 17, 2014 S. Srinivasan, Ph.D. Conference Chair and Associate Dean

TABLE OF CONTENTS

ONLINE TIME AND GENDER PERCEPTIONS OF INTERNET ADDICTIVE DISORDERS Loretta Beavers, Southwest Virginia Community College Reginald L. Bell, Prairie View A & M University Wally Guyot, Fort Hays State University Robert Meier, Fort Hays State University Professor Dibyendu Choudhury, Faculty MemberSEM National Institute For Micro, Small and Medium Enterprises	01
EFFECTIVE TEACHER CREATES AN ATMOSPHERE FOR STUDENTS' ACHIEVEMENT Charles A. Briggs, Southern University at New Orleans	25
ACADEMIC COACHING TO DEVELOP STUDENTS' CRITICAL THINKING SKILLS Gwendolyn Catchings, Jackson State University	37
MAKING MARKETING CONNECTIONS (MMC) TO ENHANCE STUDENT LEARNING Gwendolyn Catchings, Jackson State University	51
SERVICE LEARNING: REAL WORLD EXPERIENCE IN A CLASSROOM SETTING Alicen Flosi, PhD., Lamar University Rebecca Boone, PhD, Lamar University Jeff Dyson, Lamar University Darrell Brown, Lamar University Rachelle Kaufman, Lamar University Bethany White, Lamar University	59
TEACHING THROUGH "TRANSFORMING LEARNING" – AN INTEGRATIVE MODEL FOR BUSINESS EDUCATION Kevin L. Glasper, Bowie State University Cam Caldwell, Bowie State University	67
TOUCHING STUDENTS' LIVES IN THE AGE OF GLOBALIZATION: THE IMPORTANCE OF INTERNATIONALIZING BUSINESS EDUCATION Toni Mulvaney, Lamar University	81

TABLE OF CONTENTS

PREDICTORS OF ACADEMIC PERFORMANCE IN INTRODUCTORY ACCOUNTING COURSES AMONG STUDENTS AT AN URBAN FOUR YEAR UNIVERSITY Chu V. Nguyen, University of Houston - Downtown Danya M. Corkin, University of Houston - Downtown	89
THE CHALLENGE OF TEACHING LARGE CLASSES Marina Sebastijanovic, University of Houston	99
THE ROLE OF COMPUTER SELF-EFFICACY IN MATHEMATICS ACHIEVEMENT Sulakshana Sen, Bethune-Cookman University	105
INNOVATIVE METHODOLOGY: CROSS-CULTURAL TEACHING APPROACH FOR US MBAS IN CHINA Jifu Wang, Bingxin Wu, University of Houston, Victoria Xingsheng Li, University of Houston, Victoria	117

ONLINE TIME AND GENDER PERCEPTIONS OF INTERNET ADDICTIVE DISORDERS

Loretta Beavers, Southwest Virginia Community College Reginald L. Bell, Prairie View A & M University Wally Guyot, Fort Hays State University Robert Meier, Fort Hays State University Professor Dibyendu Choudhury, Faculty Member--SEM National Institute For Micro, Small and Medium Enterprises (NIMSME)

ABSTRACT

In this study, the means of 216 male and female community college students in the United States were compared based on their perceptions of time spent online. Students' perceptions were measured by a 20 item instrument adapted from Dr. Kimberly Young's Internet Addiction (IA) Test (Young, 1996). The responses also included a measure of students' perceptions of their time spent over $\langle = 1-2 \text{ hours}, \langle = 4 \text{ hours}, \langle = 5 \text{ hours}, \langle = 8 \text{ hours}, \text{ and } \rangle = 10$ hours. The statistical analysis included data for freshmen, sophomores, and others who did not classify as freshmen or sophomores. Two-Way Analysis of Variance, with a 2 x 5 factorial design, was used to test for main effects and two-way interaction effects when gender was compared to time spent online. Because there were three derived factors, three separate two-way analysis of variance procedures were conducted. In each analysis, the associated derived factor was used as the dependent variable.

Keywords: gender; time; online; addictive behaviors; Internet Addiction (IA); impulse-control; Internet obsession

INTRODUCTION

According to Young (1996), Internet Addiction Disorder (IAD) is an impulse-control disorder, which does not involve any intoxicant. Young suggested that there were four types of triggers that initiate excessive Internet use: (1) application--a particular application that influences the user to be addicted, (2) emotions--the Internet helps the user to be more relaxed and calm, (3) cognition--the Internet acts as therapy for the user to get relief from maladaptive thoughts and catastrophic thinking, and (4) life events--life dissatisfaction (including absence of intimate relationships). Internet Addiction (IA) includes several symptoms (Control Center, 2014), such as (1) a preoccupation with the Internet at inappropriate times, (2) an inordinate amount of time spent on social-networking sites instead of developing relationships in the real world, (3) excessive watching of pornography, which may compromise one's interpersonal relationships, (4) using the Internet to escape negative feelings such as depression or low self-esteem, (5) weight gain, poor hygiene, carpal tunnel, and other physical effects of an Internet obsession, and (6) jeopardizing work and relationships to use the Internet.

College students represent a particularly vulnerable group, which may make them prone to Internet Addiction (IA). In terms of their daily routines, their schedules provide them with a great deal of flexibility and free time that gives them more opportunities to spend time on various Internet applications (Rotsztein, 2003). According to the literature review, IA is a serious issue to be studied

among college students. Therefore, the purpose of this study was to determine if IA was a problem for students in a selected community college in the United States.

The most common factors of IA are gender, age, Big Five personality, chronotype, and country of origin. The articles cited in the literature are concentrated on universities or four-year colleges in China, Indonesia, Italy, Malaysia, Somalia, Turkey, and Yemen where the student bodies were largely traditional students who lived on campus. Conversely, community colleges in the United States have more diverse student bodies and commuter campuses. We will show that the academic literature does not reveal any community college studies in the United States that focused on gender and time spent online in relation to IA. Therefore, our study will answer the following research questions:

- Q₁: Is there more than just one dimension of the IA construct concerning community college students' perceptions of IA?
- Q₂: Is community college students' perception of IA dependent on gender?
- Q₃: Is community college students' perception of IA dependent on time spent online?
- Q4: Is community college students' perception of IA dependent on gender and time spent online?

In this study there are four goals to our purpose. First, we will discuss the related literature in lieu of our four research questions, thus, justifying our research hypotheses and independent variables: gender and time spent online. Second, we will describe the survey, sample and methods used in this study. Third, we will test our hypotheses. Fourth, and finally, we will explain our findings in lieu of the aforementioned research questions.

LITERATURE REVIEW

A study by Chang (2012) of 1,046 undergraduate and graduate students at a national university in Taiwan focused on the Facebook addiction of undergraduate and graduate students. The study also explored the relationships between personality traits, interpersonal relationships, and Facebook addiction. In addition, this study investigated the relationships between using Facebook on smartphones and Facebook addiction. The results of the survey indicated that (1) Facebook addiction of undergraduate students was higher than graduate students, and the rate of Facebook addiction high-risk groups had the same result, (2) the rate of Facebook addiction high-risk groups of men was higher than women, (3) the students who used Facebook addiction high-risk groups had the same result, (4) the students with neurotic traits might lead to Facebook Addiction, and (5) interpersonal relationships were negatively correlated with Facebook addiction.

Social network services (SNS) addiction has been viewed as a clinical disorder for treatment. Kang, Shin, and Park (2013) conducted research to study addiction to SNS from a management perspective to study consumer behavior as a possible manageable resource. A survey was administered to prolific users of SNS. The authors performed an exploratory factor analysis on the data to define SNS addiction and to construct its dimensions. The authors termed SNS addiction as an "addictive consumption trait" (ACT) of SNS; and its underlying dimensions are salience, euphoria, immersion, compulsion, and association. With the newly constructed dimensions of

ACT of SNS, firms could determine the causal relationships between the attributes of their SNSs on each dimension of ACT of SNS. Once firms understand the influences of each one of the attributes on ACT of SNS, they can reallocate resources to maximize consumers' ACT of SNS to benefit the firms.

Christakis et al. (2011) conducted a pilot survey of 307 college students at two US universities. A total of 224 eligible respondents completed the survey (73% response rate). They concluded that the prevalence of problematic Internet usage among US college students is a cause for concern, and potentially requires intervention and treatment among the most vulnerable groups. The prevalence reported in this study is lower than that which has been reported in other studies, however the at-risk population is very high and preventative measures are also recommended.

To discuss the influence of peer education on IA in college students, a study was conducted by Zhao et al. (2013) on 54 three-year college students of a university in Anhui Province, China. The researchers concluded that peer education can reduce the Internet Addiction (IA) of college students, increase the psychological health level, and improve the negative dealing measures.

Zainudin, Din, and Othman (2013) conducted a survey of 653 university students (341 females and 312 males) from five different universities in Malaysia. The researchers concluded that Internet applications influenced the Internet usage and students tended to spend most of their time on social networking. In addition, this study produced a guideline for those who wanted to get treatment for Internet Addiction.

A study by Randler, Horzum, and Vollmer (2013) sought to investigate whether Internet Addiction (IA) is associated with age, gender, Big Five personality, and chronotype in a sample of 616 Turkish university students. The researchers found an association between IA and chronotype. Evening-oriented students and males had higher IA scores and agreeable and conscientious students reported lower IA scores. No consistent relationship was observed between students' IA scores and openness to experience, extraversion, and neuroticism. They concluded that evening-oriented students might be more prone to IA than morning-oriented students because evening-oriented students were related to personality styles that foster IA. There does seem to be a relationship between college students' gender and IA, but, the direction of that relationship needs to be further examined empirically.

Rather than looking at Internet Addiction (IA) in general, a study by Kuss, Griffiths, and Binder (2013) focused on particular activities on the Internet that might be potentially addictive and linked them to personality traits that might predispose individuals to IA. The purposes of their study were to assess the prevalence of clinically significant levels of IA and to discern the interplay between personality traits and specific Internet uses in increasing the risk of IA. This cross-sectional online survey used data from 2,257 students of an English university. Results indicated that 3.2% of the students were classified as being addicted to the Internet. Personality traits and uses of online activities explained 21.5% of the variance in IA. A combination of online shopping and neuroticism decreased the risk of IA, whereas, a combination of online gaming and openness to experience increased it. In addition, frequent usage of online shopping and social online activities, high neuroticism and low agreeableness significantly increased the chances of being addicted to the Internet.

A study by Koc and Gulyagci (2013) explored Facebook addiction among Turkish college students and its behavioral, demographic, and psychological health predictors. The Facebook Addiction Scale (FAS) was developed and its construct validity was determined through factor analyses. A total of 447 students reported their personal information and Facebook usage and completed the FAS and General Health Questionnaire (GHQ-28). The results revealed that weekly time commitment, social motives, severe depression, anxiety, and insomnia positively predicted Facebook addiction. However, demographic variables and the interactions of gender by usage characteristics were not significant predictors.

The impact of self-complexity and Internet Addiction (IA) on attitudes toward online marketing and buying intentions for online travelling products were studied by Hsiao, Yeh, and Tsai (2013). Three hundred and two usable questionnaires were collected. The results were as follows: (1) Selfcomplexity and IA variables were positively related to attitudes toward online marketing and buying intention for online traveling products, (2) Attitudes toward online marketing were positively related to buying intentions for online traveling products, (3) There were interaction relationships between self-complexity and IA when examining their influences on attitudes toward online marketing for online traveling products and buying intention for online traveling products. Research findings in this study clarified the mutual relationships among attitudes towards online marketing, IA, self-complexity, and buying intentions. The findings also provided practitioners with rich marketing implications.

The purpose of a study by Usman, Alavi, and Shafeq (2014) was to identify the relationship between Internet Addiction (IA) and academic performance among foreign undergraduate students in Universiti Teknologi Malaysia (UTM). This study also identified the differences in IA in terms of gender and country of origin. Four countries were selected through simple random sampling: China, Yemen, Somalia and Indonesia. A total of 120 students were selected randomly from those countries. The results of the study showed that there were no significant differences in IA in terms of gender and country of origin. The results also indicated that there were no significant differences in IA in terms of gender and country of origin. The results also indicated that there were no significant differences in IA in terms of gender and country of origin. The results also indicated that there were no significant differences in IA in terms of gender students were specificant differences in IA in terms of gender and country of origin. The results also indicated that there were no significant differences in IA in terms of gender students of the study of OPA. There does, moreover, seem to be a relationship between the time college students spend online and their perceptions of IA.

According to a study by Servidio (2014), despite increasing interest in IAD, especially among high school students, few investigations have been oriented toward exploring the potential risks associated with the overuse of the Internet for the university population. A sample of 190 Italian university students was selected to investigate the effects of demographic profile, Internet usage, and the Big Five personality traits on IA. Results indicated that none of the enrolled students showed a high level of addiction, although moderate behavioral disorders were found. According to the multiple linear regression findings, males were more inclined to use the Internet than females; and some students' behaviors were predictors of IA. Moreover, personality traits such as Agreeableness and Extraversion were negatively related to IA; whereas, Openness was positively associated. These results indicated that several factors may predispose university students to developing problematic behavior connected with an excessive use of the Internet. It is apparent from the aforementioned literature that college students' gender and their time spent online should have some dependency of the each other and thus an influence on their perceptions of IA; although, the perception magnitudes, nor the direction of the relationship is known at this time.

We therefore hypothesize:

- *H*₁: There is no main-effect of college students' gender on perceptions of Internet Addiction.
- *H₂:* There is no main-effect of college student' time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Internet Addiction.
- *H₃:* There is no two-way interaction effects between college students' gender and their time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Internet Addiction.

SURVEY AND METHODS

In this study, the means of 216 male and female community college students in the United States were compared based on their perceptions of time spent online. Students' perceptions were measured by a 20 item instrument adapted from Dr. Kimberly Young's Internet Addiction Test (Young, 1996). These 20 questions were coded as IAD1 through IAD20. Appendix A contains the codes and corresponding questions and the Likert-type scale. The responses also included a measure of students' perceptions of their time spent over $\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, and ≥ 10 hours. The statistical analysis included data for freshmen, sophomores, and others who did not classify as freshmen or sophomores. Two-Way Analysis of Variance, with a 2 x 5 factorial design, was used to test for main effects and two-way interaction effects when gender and time spent online were independent variables. Because there were three derived factors, three separate two-way analysis of variance procedures were conducted. In each analysis, the associated derived factor was used as the dependent variable. The frequency, percentage, means and standard deviations of the 216 responses are summarized in Table 1.

Table 1: Frequency and Percent for Gender and Class and Item Means with Std. Deviations					
Demographic Variables		Frequenc y	Percent	Cumulati ve Percent	
Gender	Male	123	56. 9	56.9	
	Female	93	43. 1	100.0	
	Total	216	100 .0		

Class		Freshmen	117	54.	54.2
				2	
		Sonhomora	75	24	88.0
		Sophomore	15	54. 7	00.9
				/	
		Others	24	11.	100.0
				1	
		T (1	016	100	
		Total	216	100	
				.0	
Ite	Item Description		Ν	Mea	Std.
m				n	Deviati
					on
17	How often do you hide from others about your s	staying online?	216	4.69	0.6663
				9	
20	How often do you feel sad, emotional, or nervou	us when you're	216	4.67	0.6728
	offline and it changes when you're back to onlin	ie?		6	
9	How often does your work/business suffer due to your staying			4.58	0.6966
	online?			8	
6	6 How often do your business or work suffers because of the			4.47	0.789
	amount of time you spend online?			2	
19	How often do you feel more comfortable with y	our virtual	216	4.45	1.0061
	friends than real life friends?			8	
8	How often do you become defensive or secretiv	e when anyone	216	4.40	0.9
1.0	asks you what you do on-line?			7	
18	How often do you choose to spend more time of	nline rather	216	4.27	1.1348
	going out with others in your physical world?			3	1.070.1
12	How often do you feel disturbed if someone in t	the physical	216	4.19	1.0736
_	world interrupts you when you re online?	1 (1	016	4	1.0522
Э	How often do others in your life complain to yo	u about the	216	4.14	1.0533
16	amount of time you spend offine?	time?	216	4	1.0477
10	How often have you tried to reduce your online	ume?	210	3.85	1.0477
11				2 20	1 2272
	How often do you think life without Internet is actually boring,			5.00	1.2213
15	How often do you feel the Internet has become	an obsession	216	3.80	1 2197
15	for you?	0050551011	210	6	1.2171
4	How often do you form new relationships with t	fellow online	216	3.73	1.0696
	users?			6	1.0070
L			1	1	

3	How often do you prefer the excitement of the Internet to	216	3.71	1.205
	intimacy/interaction with family and friends?		3	
10	How often do you feel the desire to go to online when you're	216	3.44	1.1192
	offline?		4	
7	How often do you check your email before something else that	216	3.38	1.176
	you need to do?		9	
2	How often do you avoid homework to spend more time	216	3.24	1.1881
	online?		1	
14	How often do you find saying to yourself "Just a few more	216	3.19	1.2829
	minutes" while online?		4	
13	How often do you lose sleep and go to bed late due to being	216	3.06	1.3794
	online late at night?		5	
1	How often do you find that you stay online longer than you	216	2.46	1.1242
	intended?		3	

Items Reliability

Twenty Likert-type items were used to measure respondents' perception of Internet Addiction (IA). For the 216 students who completed the survey, all completed enough of these Likert-type items for those items to be useable in factor analysis and factorial ANOVA tests with between subjects design. The 20 items Likert-type scale questions, with choices ranging from "very often," "often," "neutral," "not regularly," to "not at all," were tested for reliability using a Cronbach's (1984) Alpha. The scale reliability shown in Table 2 was .905. Cronbach's Alpha based on Standardized Items was .907. These results exceeded the commonly reported Nunnally (1978) criterion of .70 and the Lance, Butts, and Michels (2006) criterion of .80 for an acceptable alpha. Twenty variables (survey questions 1-20) represent the IA construct that is often described in current literature. If any single item were deleted, the test reliability would not be improved very much.

	Table 2: Item-Total Statistics, Reliability Statistics, and Cronbach's Alpha					
Int	ternet Addiction Disorder (IAD) Items	Scale Mean if	Correcte d Item-	Squared Multiple	Cronbac h's Alpha	
1.	How often do you find that you stay online longer than you intended?	75.13 9	.523	.406	.901	
2.	How often do you avoid homework to spend more time online?	74.36 1	.533	.432	.900	
3.	How often do you prefer the excitement of the Internet to intimacy/interaction with family and friends?	73.88 9	.559	.428	.900	
4.	How often do you form new relationships with fellow online users?	73.86 6	.433	.375	.903	
5.	How often do others in your life complain to you about the amount of time you spend online?	73.45 8	.635	.533	.898	
6.	How often do your business or work suffers because of the amount of time you spend online?	73.13 0	.470	.550	.902	
7.	How often do you check your email before something else that you need to do?	74.21 3	.212	.145	.909	
8.	How often do you become defensive or secretive when anyone asks you what you do on-line?	73.19 4	.543	.501	.900	
9.	How often does your work/business suffer due to your staying online?	73.01 4	.494	.592	.902	

0. How often do you feel the desire to go to online when you're offline?			.668	.570	.896
11. How often do you think life without joyless, and empty?	73.79 6	.602	.441	.898	
12. How often do you feel disturbed if so world interrupts you when you're only	12. How often do you feel disturbed if someone in the physical world interrupts you when you're online?				.897
13. How often do you lose sleep and go online late at night?	to bed late due to being	74.53 7	.593	.587	.899
14. How often do you find saying to you minutes" while online?	14. How often do you find saying to yourself "Just a few more minutes" while online?			.673	.896
15. How often do you feel the Internet has become an obsession for you?			.735	.636	.894
16. How often have you tried to reduce your online time?			.312	.264	.906
17. How often do you hide from others about your staying online?			.532	.480	.901
18. How often do you choose to spend m going out with others in your physica	nore time online rather al world?	73.32 9	.678	.641	.896
19. How often do you feel more comfortable with your virtual friends than real life friends?			.558	.581	.900
20. How often do you feel sad, emotional, or nervous when you're offline and it changes when you're back to online?			.500	.498	.902
		Std. De	eviation	N o	of Items
Scale Statistics Mean = 77.602	Variance = 163.004	12.7	673		20
Reliability Statistics, Cronbach'sCronbach's Alpha, BasedAlpha= .905Items = .90			ndardize	d	N of Items20

An alpha of .70 is normally acceptable for nearly all exploratory research cases (Devellis, 1991; Kachigan, 1991; Russell, 2002) but only when the assumption is that the construct to be measured is unidimensional (Cortina, 1993). Furthermore, when the number of dimensions of a single construct is unknown, a principal component factor analysis is normally required to determine the true number of dimensions of a construct in question. Researchers should be cautious about

misinterpreting high alphas when the true number of construct dimensions is not known (Cortina, 1993).

Factor Analysis

To gauge for sampling adequacy, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy Test was .890 and the Bartlett's Test of Sphericity was 1972.058, with degrees of freedom at 190, with p = .000. These tests are shown in Table 3. The communalities average is .599, just .001 below the .600 threshold for sample sizes below the rule-of-thumb 300-sample size minimum. Responses to the 20 items measuring IA (labeled IAD1 through IAD20) were subjected to an un-rotated Principal Component Factor Analysis, with a Scree Plot (in IBM's SPSS 22.0). The Scree Plot suggested four factors. An unrotated initial solution also suggested four factors with an eigenvalue of one criterion. Those four factors explained 59.858 percent of variance.

Table 3: KMO	Table 3: KMO and Bartlett's Test, Factor Score Covariance Matrix and Rotation Sums of					
	Squar	red Loadings				
	KMO an	d Bartlett's Test				
Kaiser-Meyer-Olk	kin Measure of Sampling	Adequacy.	.890			
Bartlett's Test of S	Sphericity	Approx. Chi-Square	1972.058			
		df	190			
Sig000						
	Factor Score Covariance Matrix					
Factor	Social Recluse	Internet Addict	Procrastinator			
Social Recluse	.814	.089	.055			
Internet Addict	.089	.816	.041			
Procrastinator	.055	.041	.808			
	Total Va	riance Explained				
Factor	Rotation Sums of Squar	red Loadings				
	Total	% of Variance	Cumulative %			
Social Recluse	3.774	18.868	18.868			
Internet Addict	3.329	16.647	35.515			
Procrastinator	2.277	11.385	46.900			

Note: The average communalities = 0.599.

Some items correlated higher on more than one factor in the initial solution and the "sweet spot," as some researchers call it, was a three factor solution rather than a four factor solution. A threefactor solution was more parsimonious than a four-factor solution with a cut-off of .40. A variable was said to load on a factor if it had a component loading of .40 or higher on that factor and less than .40 on any other factors (Devellis, 1991; Hatcher, 1994; Kachigan, 1991; Russell, 2002). Factors were derived using Principal Axis Factoring with an initial Promax Rotation. Three factors were deemed appropriate for further analysis. No factor had a factor score greater than ± 2 in the Factor Score Covariance Matrix as shown in Table 3. The derived factors (accounting for 46.9% of the test variance) were indicative of three dimensions of IA, with a Rotation Sums of Squared Loading 3.774 (18.868%) for factor 1, 3.329 (16.647%) for factor 2, and 2.277 (11.385%) for factor 3, shown in Table 3. Principal Axis Factoring with Varimax Rotation (factors were considered independent after a Promax rotation was run first) was used to extract the final three factors, which converged in 6 iterations, as shown in Table 4, with item descriptions. Only 13 items (IAD18, IAD19, IAD20, IAD12, IAD3, IAD14, IAD13, IAD15, IAD1, IAD10, IAD2, IAD9, and IAD6) survived the rotation, and the other seven items were not considered when naming the factors.

Table 4: Rotated Factor Matrix with Iten	n Descriptions and Comp	oonent Loadi	ings		
		Factor			
ROTATED FACTOR MATRIX ^a	Social Recluse	Internet Addict	Procrasti nator		
IAD18	.739				
IAD19	.707				
IAD20	.691				
IAD12	.548				
IAD3	.515				
IAD14		.782			
IAD13		.723			
IAD15		.604			
IAD1		.601			
IAD10		.579			
IAD2		.542			
IAD9			.839		
IAD6			.718		
Extraction Method: Principal Axis Factoring. Ro Normalization. ^a	otation Method: Varimax	with Kaiser			
a. Rotation converged in 6 iterations.					

The components that loaded on each factor were used to label that factor. Thus, three names captured the true nature of the semantics represented by the items that loaded onto each factor. The factors were named based on interpretation of language contained in the components loadings, and naming the factors helps explain the factor loading. For example, the language found in the five components that loaded on Factor 1 combined seems to represent a "Social Recluse." The names capture the meaning of the items loading on each of the factors. Factor 1 was named *Social Recluse* because items IAD18, IAD19, IAD20, IAD12, and IAD3, loading on the factor combined are a

semantic approximation of a person with a need to socialize with others but who at the same time wishes to remain in a reclusive environment. Factor 2 was named *Internet Addict* because items IAD14, IAD13, IAD15, IAD1, IAD10, and IAD2 loading on the factor combined are a semantic approximation of a person who not only needs to be constantly online but is also defensive and secretive about their online time spent. Factor 3 was named *Procrastinator* because items IAD9 and IAD6 loading on the factor combined are semantic approximations of a person who puts off other important tasks, work, and responsibilities because of their addiction to the Internet. This study, therefore, yielded three dimensions to the Internet Addiction (IA) construct consistent with the current literature. The rotated factor matrix with component loadings and named factors are shown in Table 4.

DISCUSSION AND SUMMARY

The three factors derived from the Principal Axis Factor Analysis with Varimax Rotation can be used as dependent variables in our factorial ANOVA tests. IBM's SPSS 22.0 gives the option of saving factors as regression scores for each of the 216 survey respondents. The factor scores are used as dependent variables, one at a time. Gender (males vis-à-vis females) and time spent online (<= 1-2 hours, <= 4 hours, <= 5 hour, <= 8 hours, >= 10 hours) are independent variables. Therefore, tests of Between-Subject Effects for the two-factor model, a 2 x 5 factorial design, on Social Recluse, Internet Addict, and Procrastinator are summarized in Tables 5, 6, and 7.

Sests of Between-Subjects Effects						
Dependent Variable: S	ocial Recluse					
			Mean			Partial Eta
Source	Type III Sum of Squares	df	Square	F	Sig.	Squared
Gender	4.710	1	4.710	6.314*	.013	.030
Online Hours	12.827	4	3.207	4.298**	.002	.077
Gender * Online Hours	2.796	4	.699	.937	.444	.018
Error	153.686	206	.746			
Total	175.102	216				
Corrected Total	175.102	215				
a. R Squared = .122 (Ad	ljusted R Squared = .084).	Note:	*** p < .00	1; ** <i>p</i> <	.01; *	<i>p</i> < .05

 Table 5: ANOVA on Social Recluse Testing for Two-Way Interactions among Online

 Hours Spent

Table 6: ANOVA on Internet Addict Testing for Two-Way Interactions among Online Hours Spent

Tests of Between-Subj	ests of Between-Subjects Effects						
Dependent Variable: In	nternet Addict						
						Partial	
			Mean			Eta	
Source	Type III Sum of Squares	df	Square	F	Sig.	Squared	
Gender	.442	1	.442	.617	.433	.003	
Online Hours	24.328	4	6.082	8.492***	.000	.142	
Gender * Online Hours	3.131	4	.783	1.093	.361	.021	
Error	147.530	206	.716				
Total	175.485	216					
Corrected Total	175.485	215					
a. R Squared = .159 (Ac	djusted R Squared = $.123$)	. Note:	*** p < .00	1; ** $p < .$	01; *	<i>p</i> < .05	

Table 7: ANOVA on Procrastinator Testing for Two-Way Interactions among Online Hours Spent

Tests of Between-Subjects Effects							
Dependent Variable: Procrastinator							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
Gender	.118	1	.118	.146	.703	.001	
Online Hours	2.466	4	.616	.762	.551	.015	
Gender * Online Hours	3.975	4	.994	1.228	.300	.023	
Error	166.653	206	.809				
Total	173.695	216					
Corrected Total	173.695	215					
a. R Squared = .041 (Ac	ljusted R Squared =001)). Note:	$x^{***} p < .0$	01; ** p	< .01; *	* <i>p</i> < .05	

SOCIAL RECLUSE

We reject H₁: There is a main-effect of gender on perceptions of Social Recluse, with F(1, 206) = 6.314, p = .013. Gender, with a small size effect (n²= .030) accounts for 3.0% of the variance in the dependent variable: Social Recluse.

We reject H₂: There is a main-effect of time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Social Recluse, with *F* (4, 206) = 4.298, *p* = .002, with a medium size effect (n^2 = .077) accounts for 7.7% of the variance in the dependent variable: Social Recluse.

We do not reject H₃: There is no two-way interaction effects between gender and time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Social Recluse, with *F* (4, 206) = .937, *p* = .444. Gender * time spent online, with a small effect size (n^2 = .018) accounts for only 1.8% of the variance in the dependent variable: Social Recluse.

For the factor, the male mean is -.283, while the female mean is .059, with a -.342 negative mean difference, male minus female mean. Therefore, a male is significantly less prone to be an Social Recluse than a female. The time spent online was highly significant (p = .002) with means for <= 1-2 hours, <= 4 hours, <= 5 hours, <= 8 hours, >= 10 hours of .185, .196, -.034, -479, -429, respectively. The LSD post hoc comparison shows significant decreasing negative mean differences when >= 10 hours of time online is compared to the other levels: -.613*, -.625*, -.395, and -.051, respectively. This tells us that Social Recluses are much more likely to be online for <= 1-2 hours, <= 4 hours and <= 5 hours rather than be online for <= 8 hours and >= 10 hours. Level <= 4 hours did not differ from level <= 5 hours, or <=8 hours, and vice versa. Time online and gender are not dependent on one another and the means for these independent variables do not interact in the model testing Social Recluse.

The R Squared = .122 (Adjusted R Squared = .084), which is an indication the independent variables accounted for 8.4% of the variance in the two-way model interact with the dependent variable (Social Recluse) as main effects. No two-way interaction effect (p = .243) was detected. Figure 1 illustrates the plot of the estimated marginal means of e-Recluse with gender on the separate lines and time spent online on the horizontal line. The plot ranges from -1.0 to +1.0, based on the regression scores generated and saved while running the Principal Axis Factor Analysis, with Varimax Rotation in SPSS 22.0.

Figure 1: Plot of the Estimated Marginal Means of Social Recluse for Male and Female on Time Spent Online



INTERNET ADDICT

We do not reject H₁: There is no main-effect of gender on perceptions of Internet Addict, with F (1, 206) = .617, p = .433. Gender, with a small size effect (n²= .003) accounts for 0.30% of the variance in the dependent variable: Internet Addict.

We reject H₂: There is a significant main-effect of time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Internet Addict, with *F* (4, 206) = 8.492, *p* = .000. Internet Addict, with a large size effect ($n^2 = .142$) accounts for 14.2% of the variance in the dependent variable: Internet Addict.

We do not reject H₃: There is no two-way interaction effects between gender and time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hour, ≥ 10 hours) on perceptions of Internet Addict, with *F* (4, 206) = 1.093, *p* = .361. Gender * time spent online, with a small effect size (n^2 = .021) accounts for only 2.1% of the variance in the dependent variable: Internet Addict.

For the Internet Addict factor, the male mean is -101, while the female mean is -.206, with a -.105 negative mean difference, female minus male mean. Therefore, males are slightly more prone to be Internet Addicts than females, but not significantly so. The time spent online was highly significant (p= .000) with a means for <= 1-2 hours, <= 4 hours, <= 5 hours, <= 8 hours, >= 10 hours of .412, .006, -.058, -539, -589, respectively. The LSD post hoc comparison shows significant decreasing negative mean differences when >= 10 hours of time online is compared to the other levels: -1.002*, -.596*, -.532*, and -.050, respectively. It adds integrity to the test given that responses appear truthful and authentic. This tells us that Internet Addicts are much more likely to be online for <= 1-2 hours and <= 4 hours rather than be online for <= 8 hours and >= 10 hours. Level <= 4 hours did not differ from level <= 5 hours. Time online and gender are not

dependent on one another and means for these independent variables do not interact in the model testing Internet Addict.

The R Squared = .159 (Adjusted R Squared = .123), which is an indication the independent variables accounted for 12.3% of the variance in the two-way model and is meaningful only on the two main effects, but not in the interaction effect. Although there was no two-way interaction effect (p = .361), Figure 2 illustrates the plot of the estimated marginal means of Internet Addict with gender on the separate lines and time spent online on the horizontal line. The plots range from -1.0 to +1.0, based on the regression scores generated and saved while running the Principal Axis Factor Analysis, with Varimax Rotation in SPSS 22.0.

Figure 2: Plot of the Estimated Marginal Means of Internet Addict for Male and Female on Time Spent Online



PROCRASTINATOR

We do not reject H₁: There is no main-effect of gender on perceptions of Procrastinator, with F(1, 206) = .146, p = .703. Gender, with a small size effect (n² = .001) accounts for 0.10% of the variance in the dependent variable: Procrastinator.

We do not reject H₂: There is no main-effect of time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of Procrastinator, with *F* (4, 206) = .762, *p* = .551. Job type, with a small size effect (n^2 = .015) accounts for 1.5% of the variance in the dependent variable: Procrastinator.

And, we do not reject H₃: There are no two-way interaction effects between gender and time spent online ($\leq 1-2$ hours, ≤ 4 hours, ≤ 5 hours, ≤ 8 hours, ≥ 10 hours) on perceptions of e-Procrastinator, with *F* (4, 206) = 1.228, *p* = .300. Gender * time spent online, with a small effect size (n^2 = .023) accounts for only 2.3% of the variance in the dependent variable: Procrastinator.

Although there is no two-way interaction effect (p = .361), Figure 3 illustrates the plot of the estimated marginal means of Procrastinator with gender on the separate lines and time spent online

on the horizontal line. The plots range from -1.0 to +1.0, based on the regression scores generated and saved while running the Principal Axis Factor Analysis, with Varimax Rotation in SPSS 22.0.





Answers to the Aforementioned Research Questions

Now that we have presented results for our hypotheses testing, we can answer the aforementioned research questions concerning our Internet addictive disorders test.

Question #1: Is there more than just one dimension of the Internet addictive construct concerning community college students? *Answer*: Yes, there are three dimensions of Internet Addiction (IA) construct as perceived by the community college students who completed the 20 items questionnaire on IA. The 20 original items were reduced to 13 items in a factor analysis that represents 3 derived factors and accounted for 46.9% of the scale variance. According to literature review, the articles cited concentrated on international universities or four-year colleges. The literature review did not find any community college studies in the United States that focused on gender and time spent online. Therefore, our study attempts to fill this void.

Question #2: Is Internet addictive behavior dependent on a student's gender? *Answers*: Yes and no; Internet Addiction (IA) is dependent on gender for Social Recluse but not for Internet Addict or Procrastinator. Female community college students in our study are more prone to be Social Recluses than their male counterparts. A study by Randler at el. (2013) did not include the three factors (Internet Addict, Social Recluses, and Procrastinator) derived in our study. Their study found that males had higher IA scores in general.

Question #3: Is Internet addictive behavior dependent on time spent online? *Answers*: Yes and no; Internet Addiction (IA) is dependent on the time community college students spent online for Social Recluses and Internet Addicts but not for Procrastinators. The big difference was ≥ 10 hours online and all the other times student reported being online with the negative mean differences declining as time online declines. Time online did not differ significantly for the

Procrastinators regardless of the length of time. A study by Koc and Gulyagci (2013) revealed that weekly time commitment was a positive predictor of Facebook addiction. Our study concurs on the time commitment. Our study found that the two types of community college students (Social Recluses and Internet Addict) do spend more time online; therefore, they may be more susceptible to IA.

Question #4: Is Internet addictive behavior dependent on both time spent online and gender of the Internet users? *Answers*: No. No. No. Adding time as an independent factor seems to have neutralized the differences between genders found earlier in the main effects tests in the Social Recluse and Internet Addict models. Therefore, Internet Addiction (IA) is not dependent on gender when time online is an independent factor compared on Social Recluse or Internet Addict or Procrastinator as dependent variables. It is safe to say, for this study, that males and females are statistically the same on the perceptions of their IA behaviors when time is considered in the models. Therefore, we can argue that community college students in the study are the same when it comes to Social Recluse or Internet Addict or Procrastinator, regardless of the declining mean differences and hours spent online as indicated in Figures 1, 2, and 3.

LIMITATIONS AND FUTURE RESEARCH

This study was limited to one community college in the United States. The research project could have surveyed more students across multiple community college campuses. A much more heterogeneous population of students could be sampled, which may enable us to make generalizations for other populations of community college students. A multi-campus study should be conducted in order to ascertain a deeper understanding of the differences between certain demographic characteristics and internet addictive behaviors. Future studies could address the question of how other instructors could adapt their teaching given the nature of students' addiction to the use of internet.

REFERENCES

Chang, Yu-Chieh. (2012). The Study of Students' Facebook Addiction: Take University Students and Graduate Students as Examples. National Central University. *ProQuest Dissertations and Thesis*.

Christakis, D. A., Moreno, M. M., Jelenchick, L., Myaing, M. T., & Zhou, C. (2011). Problematic internet usage in US college students: A pilot study. *BMC Medicine*, 9(77).

The Control Center. (2014). IA treatment. Retrieved April 9, 2014 from http://www.thecontrolcenter.com/what-we-treat/behavioral-addiction-treatment/Internet-addiction-treatment/

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78 (1), 98-104.

Cronbach, L. (1984). *Essentials of psychological testing*. New York: Harper and Row.

Devellis, R. (1991). Scale development. Newbury Park, CA: Sage Publications.

Hatcher, L. (1994). A step-by-step approach to using the SAS (R) system for factor analysis and structural equation modeling. Cary, NC: SAS Institute.

Hsiao, C., Yeh, S., & Tsai, C. (2013). The impact of self-complexity on attitudes towards online marketing and buying intentions: Using the IA as a moderator. *Marketing Review / Xing Xiao Ping Lun, 10*(1), 79. Kachigan, S. K. (1991) *Multivariate statistical analysis*. New York: Radius Press.

Kang, I., Shin, M. M., & Park, C. (2013). IA as a manageable resource: A focus on social network services. *Online Information Review*, *37*(1), 28-41.

Koc, M., & Gulyagci, S. (2013). Facebook addiction among Turkish college students: The role of psychological health, demographic, and usage characteristics. *Cyberpsychology, Behavior, and Social Networking*, 16(4), 279-284.

Kuss, D. J., Griffiths, M. D., & Binder, J. F. (2013). IA in students: Prevalence and risk factors. *Computers in Human Behavior*, 29(3), 959-996.

Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria: What did they really say? *Organizational Research Methods*, *9*(2), 202-220.

Nunnally, J. (1978) Psychometric theory. New York: McGraw-Hill.

Randler, C., Horzum, M. B., & Vollmer, C. (2013). IA and its relationship to chronotype and personality in a Turkish university student sample. *Social Science Computer Review*, *32*(4), 1-12.

Rotsztein, B. (2003). Problem Internet use and locus of control among college students: Preliminary findings, 35th Annual Conference of the New England Educational Research Organization.

Russell, D. W. (2002). In search of underlying dimensions: The use (and abuse) of factor analysis in Personality and Social Psychology Bulletin. *Personality and Social Psychology Bulletin*, 28(12), 1629-1646. Servidio, R. (2014). Exploring the effects of demographic factors, Internet usage and personality traits on IA in a sample of Italian university students. *Computers in Human Behavior*, 35, 85-92.

Usman, N. H., Alavi, M., & Shafeq, S. M. (2014). Relationship between IA and academic performance among foreign undergraduate students. *Procedia-Social and Behavioral Sciences*, 114, 845-851.

Young, K. S. (1996). *Caught in the net: How to recognize the sign of IA and a winning strategy for recovery.* New York: John Wiley & Sons.

Zainudin, A., Din, M. M., & Othman, M. (2013). CIMP Internet Addiction Guideline. *International Journal of Asian Social Science*, *3*(9), 1967-1972.

Zhao, J., Qi, Y., Wang, L., Ma, Y., & Xue, F. (2013). Effect of peer education on Internet addiction intervention in college students. *Journal of Bengbu College*. Bengbu Medical College, Anhui, China.

Appendix A

Survey Questions

CODE	ITEMS	Very Often	Often	Neutral	Not Regular	Not At All
IAD1	How often do you find that you stay online longer than you intended?					
IAD2	How often do you avoid homework to spend more time online?					
IAD3	How often do you prefer the excitement of the Internet to intimacy/interaction with family and friends?					
IAD4	How often do you form new relationships with fellow online users?					
IAD5	How often do others in your life complain to you about the amount of time you spend online?					
IAD6	How often do your business or work suffers because of the amount of time you spend online?					
IAD7	How often do you check your email before something else that you need to do?					

IAD8	How often do you become defensive or secretive when anyone asks you what you do on-line?			
IAD9	How often does your work/business suffer due to your staying online?			
IAD10	How often do you feel the desire to go to online when you're offline?			
IAD11	How often do you think life without Internet is actually boring, joyless, and empty?			
IAD12	How often do you feel disturbed if someone in the physical world interrupts you when you're online?			
IAD13	How often do you lose sleep and go to bed late due to being online late at night?			
IAD14	How often do you find saying to yourself "Just a few more minutes" while online?			
IAD15	How often do you feel the Internet has become an obsession for you?			

IAD16	How often have you tried to reduce your online time?			
IAD17	How often do you hide from others about your staying online?			
IAD18	How often do you choose to spend more time online rather going out with others in your physical world?			
IAD19	How often do you feel more comfortable with your virtual friends than real life friends?			
IAD20	How often do you feel sad, emotional, or nervous when you're offline and it changes when you're back to online?			

EFFECTIVE TEACHER CREATES AN ATMOSPHERE FOR STUDENTS' ACHIEVEMENT

Charles A. Briggs, Southern University at New Orleans

ABSTRACT

Effective class room communication fosters and stimulate critical and independent thinking skills, promote growth, and motivate students' creativity. Learning could be applied to a diverse group of students, and in most cases designed to meet the needs of beginning, undecided and those students requiring developmental academic support. Creation of positive atmosphere in the classroom stimulates growth and encourage success. Therefore, it is gratifying and fulfilling for a teacher to use his or her mind in quest for knowledge while sharing the knowledge with the students being taught. The environment the teacher creates will arouse curiosity, stimulate thoughts, enhance interest, create interaction that will foster students' learning and ultimately lead to success. The characteristics of effective and superior college teaching fall within the boundaries of stimulation of interest, knowledge of subject matter, creation and maintenance of positive and supportive learning environment, clarity and preparedness, effective assessment of student learning and genuine concern for students' progress and success. These characteristics however, should be aligned with the achievement goals set by the teacher. Despite all these characteristics a teacher may exhibit, there are some regulatory activities that limit the teacher's commitment to care, intensification in teaching, accountability and perfectionism and openendedness of teaching.

Keywords: effective teaching, stimulation of interest, commitment to care, cooperative learning effective assessment of student.

INTRODUCTION

According to Oxford English Dictionary, teaching is, showing the way, directing, guiding and imparting knowledge, therefore teachers are in the classrooms to plays important roles as actors/ facilitators to provide effective classroom instructions efficiently. Indeed some people are natural teachers while others are not. However, every teacher can improve his/her teaching skills if they are well informed about teaching and learning best practices. Teaching is as an interactive process between teachers and students, providing the opportunity for students to learn. In every institution there are people who teach while others learn. Teaching is not restricted to those with college degrees and professional teaching certification. Wherever leaners and teachers congregate there are some teaching and learning taking place.

One important aspect of effective teaching is the ability to create a positive classroom atmosphere. An effective teacher is expected to know the subject being taught, put into consideration what the students know, be able to clearly communicate to the students and stimulate their curiosity to learn. By achieving this, the teacher can maintain better classroom management and discipline. On the flip side, some argue that 'bad teaching' is also considered an effective teaching since it forces students to study on their own and be independent of the teacher. To be an effective teacher is not the sole responsibility of the teacher but a joint effort

of the teacher and the student. Effective teaching becomes successful teaching if the teacher creates positive feeling about the course, arouse curiosity, and stimulates thoughts and interest of the students to learn what the teacher intend to teach. Effective teachers are distinguished by their dedication to the students and to the job of teaching. Effective teachers really believe that all students can learn, although all learn differently. Teachers strive to motivate and engage all their students in learning rather than simply accepting that some students cannot be engaged and are destined to do poorly. Rubio C.M (2010). According to Fraser & Pickett (2010), the classroom learning environment involves many relationships that exist between the teacher and students or among students. Therefore, creating a positive learning environment can promote, encourage and enhance students' ability to learn and achieve success. An effective teachers do not always stand in front of the class demonstrating the extent of knowledge of subject content, but teach to promote and enhance learning. Indeed the teacher should know how to manage, not only his or herself and knowledge, but also the classroom and the students in terms of conduct/discipline, coursework, professional ethics, professional interaction between teacher and students, and students to students, how to give instructions, and how to assess and evaluate student course activities. Therefore, to be effective, the teachers must exhibit series of professional and personal skills.

METHODOLOGY

The approach to this study is confined to published reviews of relevant literature on teaching and personal professional challenges during my 20+ years of University teaching experience. First step is a wide review of some publicized literature on the role of an effective teacher, that is, what teaching is all about.

The study is classified in three stages or phases:

- 1. Structuring the concept of student achievement as a hierarchy and displaying the ultimate objective or the overall goal.
- 2. Identify some achievement objectives or criteria.
- 3. Identify some pertinent attributes or characteristics of an effective teacher.

The structure of the hierarchy in phase one above is organized by placing the objective or goal at the first level, achievement objective or criteria at the second level, and pertinent attributes or characteristics at the third level.

The identified achievement goals or objectives are:

- I. Anticipation of student needs
- II. Create achievement objective and criteria
- III. Create and facilitate teaching and learning environment
- IV. Continuously monitor student progress
- V. Determine and evaluate student achievement.

The selected attributes/characteristics in order of importance are as follows:

- I. Stimulating student interest
- II. Teacher's knowledge of subject
- III. Good teaching plan
- IV. Efficient classroom management
- V. Classroom behavior and teacher attitude at work
- VI. Caring, assessment and student evaluation.

Fig. 1. HIERARCHY OF STUDENT ACHIEVEMENT GOAL



The model is used to show matrices of pairwise comparison of an element at one level determines the achievement of the preceding level's objectives. That is, the pairwise comparisons of the achievement objectives at level 2 is compared with one another in relation to their importance to the objective at level 1. Therefore at level 2, the pairwise comparisons of the five achievement objectives will result in a 5 x 5 pairwise comparison matrix.

Then at level 3, for each of the five achievement objectives, the same procedure when used for pairwise comparison of the 5 attributes/characteristics will result in five matrices of size 6 x 6.

STIMULATING INTEREST FOR LEARNING

The diversity in today's classroom allows for cultural differences as well as differing student types. Therefore it is imperative for teachers to accommodate different learning styles to create positive feelings about the course being taught while creating a conducive learning environment. Good classroom management include: lectures coverage, information, explanation, and motivation. A lecture may change a students' perception of a problem or theory, increase a students' insight, and may stimulate him or her to read, think, and discuss ideas with other students. The probability of these events is dependent upon the students' knowledge, attitudes, and motivation to learn and on the teachers' preparation, lecture structure, and presentation. Brown, G and Atkins M (2002). Motivating students make them to be more receptive and excited about the subject, make them be

aware of the value and importance of learning, and have a better attitude to learn. Effective teachers makes the students increase their academic self-concept, their interest in the subject and the desire to learn more, and therefore to attaining a high level of achievement. Rubio C.M (2010). Capturing students' interest and getting students engaged are critical to successful teaching and learning. Research on the dimensions of college teaching has shown that stimulating students' interest in the content of the course is the most powerful predictor of the overall ratings of the teacher, and the fourth most powerful predictor of student achievement.

From a motivational standpoint, it is important to remember that students may not enter the class with prior knowledge of or appreciation for the subject. Instead, they may enter with some anxiety about their skills or performance, with a degree of resistance or with predetermined, negative attitude. Remember too, that the ideas you find stimulating may be at a level above students' understanding. As a result you will find that your enthusiasm for the subject is motivating, but students can become discouraged if what you value is not apparent to them. Theall, M (2004). Students are motivated for a variety of reasons: (1) competence needed for new employment or employment requirement, (2) intellectual curiosity (3) degree requirement etc. therefore it is impossible for the teacher to incorporate all techniques of motivation. However, it is important that the teacher possess appropriate skills to motivate his/her students.

Students' interest can be triggered by certain environmental factors such as teacher behaviors. Students who experience heightened emotional interest are pulled toward a subject because they are energized, excited, and emotionally engaged by the material. Teachers' clarity in expression or proficient and effective communication style can increase cognitive interest because they make information more organized and/or comprehensible for students. This increase in emotional arousal heightens a student's attention, making it easier to encode more information. Menzer, J. (2012).

Cooperative learning is regarded as an effective instructional practice. It is identified as successful teaching tool that improves students understanding of subjects. Cooperative learning activities such as roundrobin, team-pair-solo and jigsaw, helps to arouse student curiosity, encourage independent thinking, self-esteem and stimulate participation. These activities does not only help the individual students in a group to learn but also help a group member learn, therefore creating an atmosphere for every student in the classroom to achieve success. Although it was argued that nearly all "jigsaw" activities are not cooperative learning jigsaw activities. That, students work in small groups does not mean they are cooperating to ensure their own learning and the learning of all others in their group. Stahl R. J. (nd).

It is sometimes extremely difficult to motivate every student in class since some students seem to take their education lightly. Indeed, there is no waste of time or effort without pay-offs to students. The teacher could identify the factors that causes the student to perform the way they do and propose ways to eliminate the performance gap between current performance and the performance target. The teacher could also ask the student to list out possible causes of his/her problems to manageable number. This will give the teacher a template to guide the student to achieve success. If all efforts failed, the student can be sent to the College or University's Students Support Services (sometimes called the TRIO program) where the student could receive further assistance such as:

academic advising, counseling, career exploration, motivation seminars and peer mentoring that will help the student to excel through college.

KNOWLEDGE OF SUBJECT MATTER

There are different categories of teachers, some just talk without engaging the students, some are dictators, while others teach topics not relevant to subject matter and at the end of the class period student find themselves not knowing what was discussed in class. The role of a teacher/facilitator is that of imparting knowledge, and attitudes to learners while fostering their critical thinking skills through the application of theory, practice and concepts to content of the subject being taught. Pascarella and Terenzini (2005) found that students become more critical, reflective, and sophisticated thinkers during their college years and that college significantly enhances their general intellectual and analytical skills, critical thinking, and intellectual flexibility. Pascarella and Terenzini (2005) concluded that students make significant gains in subject matter knowledge, verbal and quantitative skills, and oral and written communication during the undergraduate years.

The goal of teaching is to assist students in developing intellectual resources to enable them participate in, not merely to know about, the major domains of human thought and enquiry. These include the past and its relation to the present; the natural world, the ideas, beliefs and values of our own and other peoples; the dimensions of space and quality; aesthetics and representation. Jadama, L. M. (2014). According to the McBer Report (DFES, 2000) students expect a teacher to have good content knowledge to be considered effective, which inspire the students' confidence in the teacher. Rubio C.M (2010).

Shulman, L. (1987) stipulate that, to teach students according to present day standards, teachers need to understand subject matter deeply and flexibly in that they can help students create useful cognitive maps, relate one idea to another, and address misconceptions. Teachers also need to see how ideas connect across fields and to everyday life. This kind of understanding provides a foundation for pedagogical content knowledge that enables teachers to make ideas accessible to others.

In 1986, Shulman, L. introduced the phrase "*pedagogical content knowledge*" which in his view was the key to distinguishing the knowledge base of teaching rested at the intersection of content and pedagogy. Pedagogical content knowledge is defined as: teachers' interpretations and transformations of subject-matter knowledge in the context of facilitating student learning. Shulman, L. (1987). He further proposed several key elements of pedagogical content knowledge: (1) knowledge of representations of subject matter (content knowledge); (2) understanding of students' conceptions of the subject and the learning and teaching implications that were associated with the specific subject matter; and (3) general pedagogical knowledge. However, Shulman went further to include: (4) curriculum knowledge; (5) knowledge of educational contexts; and (6) knowledge of the purposes of education as part of the knowledge base for teaching (Shulman, 1987).

Solís, A. (2009) concluded that when teaching subject matter, teachers' actions are determined to a large extent by the depth of their pedagogical content knowledge, making this an essential component of their ongoing learning. At the heart of effective content teaching is the teachers' pedagogical content knowledge. If we are to improve the quality of teaching and learning in critical core content areas, we need to resist some old traditions in professional learning. Instead, we should acknowledge and expand the insights of experts who develop competence in subject matter teaching. We should additionally commit to high quality professional development targeted to develop this expertise. When we do this, we support the growth of the teacher as a person and a professional who can expertly lead a student to academic success. Solís, A. (2009). Having good knowledge of subject matter is an important aspect of good teaching, as it strengthens the teacher's confidence to challenge student's misconceptions and heightens his/her moral. Ferguson & Womack (1993), stipulate that "effective communication of subject matter content is an essential aspect of good teaching.

GOOD PLANNING

Teaching has been identified as a stressful profession, Kyriacou & Sutcliffe, (1978b); Milstein & Golaszewski, (1985), therefore planning is an integral part of effective and successful teaching. Teachers that make teaching plan, in essence, simplifies their teaching process that enable them to impart knowledge and information pertinent to the particular lesson to student in an effective and efficient way. Good planning entails comprehensive approach from course description/objectives to student performance evaluation. Good lesson plan stimulates students' interest and encourage participation. To simplify teaching process, teachers are expected to continuously make lesson plans that reflect his/her creative and unique ability to transfer facts and relevant material unto students efficiently. Although good planning include documents such as course syllabus/outlines, however, the extent of this document depends on the institution's goals but the lesson plan give the teacher some room for flexibility to use techniques and strategies that he/she deem fit.

CLASSROOM MANAGEMENT

Teaching takes time and managing classroom time is a challenge. Classroom management is about procedures becoming routines. Routines give structure to the instructional environment. Classroom management is not imposing strict and rigid rules, it is to:

- (1) make course objective clear, manage class time,
- (2) create positive and supportive learning environment,
- (3) facilitate learning, anticipate students' needs,
- (4) effective assessment of student learning, well-prepared for class, usage of criterion based grading to evaluate each student independently of other students,
- (5) above all, implement outcome base assessment to promote students motivation, enthusiasm and learning.

Effective teachers use low classroom rules, and more routines to maintain a relaxed and warm environment to enhance learning.

Achievement increases when a positive productive learning environment exists. Studies have shown that when students know exactly what is expected of them in specific situations, behaviors tend to be appropriate. Effective use of school time begins with efficient classroom organization and management, therefore it is important for teachers to devise strategies to maintain focus on instruction in real time. Effective classrooms are managed with procedures and routines. Students readily accept a uniform set of classroom procedures because it simplifies their task in succeeding in school. However, flexibility and adjustment to classroom policies also provides for students' success. Efficient and workable procedures allow many activities to take place with a minimum of confusion and wasted time. Procedures help a teacher to structure and organize a classroom for
maximum engaged learning time. Wong and Wong (2005). According to Blasé (1982), teachers complained about having to cope with student disregard for classroom and school rules. This disregard resulted in student misbehavior which interfered with the teaching process and student performance. Cruickshenk & Haefele (2001) stated that "effective teachers are able to qualitatively do more with the same amount of time" hence, good planning is attributable to classroom management and organization to achieve learning.

The greatest part of the loss of classroom instructional time is attributed to discipline problems. In order to provide high-quality instruction, educators must understand how students learn. Knowing the students' preferences for learning helps to solidify the appropriate manner for successful implementation. Instruction and interventions which match students' strengths to targeted deficit areas appear to show favorable results in student performance. Master Instructional Strategy (MIS) (nd).

CLASSROOM BEHAVIOR AND TEACHERS' ATTITUDE TOWARDS WORK

Teachers are facilitator, actors/actresses and comedians. Indeed they are on stage in front of the classroom charged with the responsibility of delivering the required lesson. Wong and Wong (2005) differentiate between manage and disciple. They stated that "effective teachers manage their classrooms with procedures and routines. Ineffective teachers discipline their classrooms with threats and punishments". They also underlined that discipline has to do with how students behave, and management has to do with procedures on how students have to work in the classroom.

A good strategy can bring the best intelligence out of students. Gardner (1999), in his explanation of the theory of multiple intelligence (MI) indicated that all individuals possess several independent intelligences. The intelligences are: linguistic, logical mathematical, musical, spatial, bodily-kinesthetic, interpersonal, intrapersonal and naturalist. He stipulate that no two individuals' not even identical twins or clones, have exactly the same amalgam of intelligences, foregrounding the same strengths and weaknesses. Where individuals differ is in the strength of these intelligences and in the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems, and progress in various domains. Gardner (1999), further stated that the use of multiple intelligence (MI) enhances learning process. Campbell, et al (2004) stress the importance of encouraging students to explore and use all the intelligences.

Teachers' attitude towards work can either encourage or discourage students from learning. Teacher are a counselor and facilitator of lifelong learning therefore students look upon you as a role model who will lead and guide them through success in the course and their educational journey. A teacher with a burning desire for teaching, should communicate it to the student that you enjoy being a teacher. According to Kreitner & Kinicki, (2007), job satisfaction reflects the extent to which people like their jobs. As expected, teachers' working conditions, assessed by their level of job satisfaction, affect teacher-student interaction, hence, higher levels of job satisfaction improve teachers' morale, which students perceive positively. Ahmad, A. and Sahak, R. (2009). Students perceive an instructors' non-verbal signals from the minute he/she steps into the classroom. Therefore, exhibiting good attitude and pleasant personality such as cheerfulness, openness, understanding, honesty and empathy could be considered an asset to the teacher and ease the learning task of the students.

A teachers' natural voice sometimes can influence the students' perception of the teachers' competence and warmth. Individuals with attractive voices that vary in sound, tone, and emotions hold the attention of students thereby appearing to stimulate student learning. Loud voices can appear more authoritarian and knowledgeable than soft voices. Extroverted instructors who use more body gestures and expressive language are perceived by students as enthusiastic about the course. The instructors' strong interest in the course ignites in students a similar enthusiasm that leaves them with the perception that they learned more from the course. The students perceive warmth and friendliness in the teacher when they can freely approach and have personalized interaction for guidance in their academic program. Accessibility out of class can also alter the ratings of a conscientious teacher. Ferguson, M. (2011).

According to Gurney (2007), when teachers show enthusiasm, and it encourages interaction in the classroom, the work of learning process is turned into a pleasure. Also, Stronge et al., (2004) emphasized that, teachers who are enthusiastic about their subjects and learning, motivate students, and therefore increase achievement.

There are however, significant differences between beginning and experienced teachers. The most prevalent is that new teachers seem to approach classroom with personal belief of what teaching is all about and therefore do not focus on students' learning. Instead, they focus only on their knowledge of the subject. However, an experience teacher tend to set achievement goals at the beginning of the semester and work through the set goals. Although there are comparable differences between beginning and experienced teachers, it is important to know that the more years of classroom teaching experience a teacher gains, the more confident they become in their overall performance, assessment and evaluation of their students.

CARING, ASSESSMENT AND STUDENT EVALUATION

Effectiveness in a teachers is having compassion and caring about the students and strive to bring the best out of them by giving them:

- 1. positive reinforcement when possible,
- 2. opportunity to discuss outside experiences,
- 3. provide opportunity for flexibility,
- 4. consider their personal problems when appropriate,
- 5. allow individual differences,
- 6. develop supportive environment and be sensitive to their learning barriers.

Stronge et al; (2004) stated that students perceive effectiveness when teachers show kindness, gentleness and encouragement. An effective teachers therefore demonstrate genuine concern and empathy toward students through understanding the students' concerns and questions.

Gurney (2007), argued that learning should be considered as an emotional exercise which allows students to get engaged as it appeals to be emotionally. Caring has moral, social, and personal facets, therefore, when all facets of caring are present and balanced, they can nurture individuals and facilitate the process of learning. Caring begins when students first arrive at school. Classrooms and schools can do their job better if students feel they are truly welcome and have a

range of social supports. A key facet of welcoming encompasses connecting new students with peers and adults who can provide social support and advocacy. Efforts to create a caring classroom climate encourages cooperative learning, peer tutoring, mentoring, advocacy, peer counseling and mediation, human relations, and conflict resolution. In the learning community, all are learners, and all may play some role as teachers. Learning is neither limited to what is formally taught nor to time spent in classrooms. It occurs whenever and wherever the learner interacts with the surrounding environment. UCLA (nd).

Teachers runs classroom and shape the minds of young students by communicating effectively with them and giving them appropriate and helpful feedback. According to Pascarella and Terenzini (2005), college environments that emphasize close relationships and high levels of student-faculty contact promote critical thinking, analytic competencies, and general intellectual development. Interaction between the student and teacher becomes extremely important for a successful relationship through the entire semester or through the students' academic journey resulting in an increase cohort retention and graduation rate. It is believed that a close but limited relationship between the student and teacher can be very helpful in developing students' self-esteem and confidence. The teacher indirectly, will feel satisfied with their job while students feel satisfied that they learned.Respect between teacher and student should exist, with both feeling enthusiastic when learning and teaching occur. Having established a positive relationship with students, teachers will encourage students to seek education, be enthusiastic, and to be in school. Ahmad, A. and Sahak, R. (2009).

Every student is capable of achieving success therefore, effective assessment of student learning is of vital importance and viewed as an effective learning process. Assessment of students is a difficult component of effective and efficient teaching, and might even sometimes be considered a serious and often tragic enterprise. Ramsden, (1992), assert that, assessment is a process of critical importance in defining student approach to learning, Biggs, (1999), and plays a prominent role in influencing what students learn and the scope and extent of their learning. Oliver, (2004). Assessment is also a tool for teachers to understand better exactly what students know and do not know. Ramsden, (1992), and it can be used reflectively to improve our teaching and to make it more effective. Field, R.M (2005).

Although not statistically valid, faculty self-evaluation is an instrument teachers should sometimes embrace to seek the honest opinion of their students to improve their teaching and also to know the students perception of the teacher. Gurney, (2007) pointed out that teachers should allow students to give the teacher their feedback in order to improve own knowledge, methodology and learning environment if need be. Although student perceptions of the teacher are sometimes base on personal feelings instead of objective evaluation, the continued use of this form of evaluation is to the advantage of the faculty to determine if, there are persistent characteristics that need his/her attention

Continuous improvement process for example, provides students the opportunity to improve on their work if previous work did not meet the standard, expectation and learning outcome of the course. While providing students with appropriate feedback and assigning final grades on the course may not be an important end of the course to the teacher, it is held in utmost importance to the students. "Examinations is not always the true text of knowledge" therefore criteria based

evaluation model should be used to evaluate students independently, that is: evaluate each student based on the completion of the objective of the course instead of making comparative judgment. For the purpose of accurate record keeping and documentation, teachers must endeavor to establish firm grading and assessing criteria that include numerical grade factors weighted in relation to the teacher's evaluation plan.

CONCLUSION

The characteristics of effective and superior college teaching fall within the boundaries of stimulation of interest, knowledge of subject matter, creation and maintenance of positive and supportive learning environment, clarity and preparedness, effective assessment of student learning and genuine concern for students' progress and success. The role of a teacher/facilitator is that of imparting knowledge, and attitudes to learners while fostering their critical thinking skills through the application of theory, practice and concepts to content of the subject being taught. One important aspect of effective teaching is to create a positive classroom atmosphere. An effective teacher therefore, is expected to know the subject being taught, put into consideration what the students know, be able to clearly communicate to the students and stimulate their curiosity to learn. A teachers' attitude towards work can either encourage or discourage his/her students from learning.

As teachers we are counselors and facilitators of lifelong learning therefore students look upon us as role models who will lead and guide them through success in the course and through their educational journey. To simplify teaching process, we are expected to continuously make lesson plans that reflect our creative and unique ability to transfer facts and relevant material unto students efficiently. Although not statistically valid, faculty self-evaluation is an important instrument we should sometimes use to seek the honest opinion of our students to improve our teaching and also to know how our students perceive us. Our students perceive warmth and friendliness in us when they can freely approach and have personalized interaction for guidance in planning and advising through their academic journey.

In the learning community, all are learners, and all may play some role as teachers. Learning is neither limited to what is formally taught nor to time spent in classrooms. It occurs whenever and wherever the learner interacts with the surrounding environment. Therefore in every institution there are people who teach while others learn. Teaching is not restricted to those with college degrees and professional teaching certification. Indeed, wherever leaners and teachers congregate there are some teaching and learning taking place, therefore we are all teachers and learners.

REFERENCES

Ahmad, A. and Sahak, R. (2009). Teacher-Student Attachment and Teacher's Attitudes Towards Work. *Jurnal Pendidik dan Pendidikan, Jil. 24, 55–72.* http://web.usm.my/education/publication/jpp24_affizal_55-72.pdf Retrieved: 06/27/2014.

Biggs, J. (1999). *Teaching for quality learning at university*. Buckingham, UK: Society for Research in Higher Education & Open University Press.

Blasé, J. (1982). A social-psychological grounded theory of teacher stress and burnout. *Educational Administration Quarterly*, 18, 93-113.

Brown, G and Atkins, M. (2002). Effective teaching in higher education. 7-10

Campbell, L., Campbell, B., & Dickinson, D. (2004). *Teaching and learning through multiple intelligences* (3rd ed.). Boston: Pearson/Allyn and Bacon.

Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58, 26-30.

Ferguson, M. (2011). Administrators Use of Student Evaluations of Professors. *International Journal of Humanities and Social Science Vol. 1 No. 17* [Special Issue – November 2011].

Ferguson, P., & Womack, S. T. (1993). The impact of subject matter and education coursework on teaching performance. *Journal of Teacher Education*, 44(1), 55–63.

Field, R. M. (2005). Favourable conditions for effective and efficient learning in a blended face-to-face/online method.

http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/23_Field.pdf Retrieved: 06/29/2014.

Fraser, B., and Pickett, L (2010). Introduction to classroom learning environments. www.teachingprofessor.com Retrieved: 06/17/2014.

Gardner, H. (1998-2004) Intelligence reframed. New York: Basic Books. A Multiplicity of Intelligences: In tribute to Professor Luigi Vignolo http://llk.media.mit.edu/courses/readings/gardner-multiple-intelligences.pdf Retrieved: 06/27/2014.

Gurney, P. (2007). Five factors for effective teaching. *Journal of Teachers' Work*, Vol. 4, Issue 2, 89-98.

Jadama, L. M. (2014). Impact of Subject Matter Knowledge of a Teacher in Teaching and Learning Process: *Middle Eastern & African Journal of Educational Research, Issue 7.*

Kyriacou, C. and Sutcliffe, J. (1978). Teacher stress: Prevalence, sources and symptoms. *British Journal of Educational Psychology*, *48*, 159–167.

Master Instructional Strategy nd. http://www.mentoringminds.com/research/master-instructionalstrategies Retrieved 06/12/2014.

Menzer, J. (2012). Researchers examine how teachers can increase students' interest and engagement in the classroom. http://phys.org/news/2012-10-teachers-students-engagement-classroom.html Retrieved: 06/18/2014.

Milstein, M. and Golaszewski, T. (1985). Effects of organizationally-based individually based stress management efforts in elementary school settings. *Urban Education*, *19*,389–409.

Oliver, R. (2004). Moving beyond instructional comfort zones with online courses. In *Beyond the comfort zone: Proceedings of ascilite 2004*. 6 http://www.ascilite.org.au/conferences/perth04/procs/oliver-r.html Retrieved 06/29/2014.

Pascarella, E.T., and Terenzini, P.T. (2005). *How College Affects Students: A Third Decade of Research*. San Francisco: Jossey-Bass.

Ramsden, P. (1992). Learning to teach in higher education. London: Routledge. 181-182

Rubio, C. M. (2010). Effective teachers – Professional and personal skills. en *ENSAYOS, Revista de la Facultad de Educación de Albacete*.

Solís, A. (2009). Intercultural Development Research Association (IDRA News Letter) Pedagogical Content Knowledge. http://www.idra.org/IDRA_Newsletter/August_2009_Actionable_Knowledge/Pedagogic al_Content_Knowledge/#sthash.OEXA5dI1.dpuf Retrieved: 06/24/2004.

Stahl, J. (nd). The Essential Elements of Cooperative Learning in the Classroom. *ERIC Digest*. http://www.learner.org/workshops/socialstudies/pdf/session6/6.CooperativeLearning.pdf Retrieved 06/21/2014.

Stronge, J.H., Tucker, P.D. & Hindman, J.L. (2004). Handbook for qualities of effective teachers. Association for Supervision and Curriculum Development, Alexandria, VA, USA.

Shulman, L. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, *15* (2), 4-14.

Shulman, L. (1987). Knowledge and Teaching: Foundations of the new reform. *Harvard Educational Review*, 57 (1), 1-22.

Theall, M. (2004). Introduced stimulating ideas about the subject. IDEA Item #1 www.Ideaedu.org Retrieved: 06/20/2014.

UCLA. (nd) Creating a caring context for Learning and Healthy Development. The School Mental Health Project, Dept.of Psychology, UCLA, Los Angeles, CA. http://smhp.psych.ucla.edu/qf/reengage_qt/practice-caring.pdf Retrieved 06/29/2014.

Wong, H. and Wong, R. (2005). Classroom management is not discipline. http://www.teachers.net/wong/OCT05/ Retrieved 06/27/2014.

ACADEMIC COACHING TO DEVELOP STUDENTS' CRITICAL THINKING SKILLS

Gwendolyn Catchings, Jackson State University

ABSTRACT

The importance of and deficiency in students' critical thinking skills has been discussed extensively by the U.S. government, commissions, accreditors, researchers and educators. This deficiency is directly linked to students' academic and career success, but research has shown minimum improvement over the years. With the majority of students' time spent in their non-education domain, this paper raises a concern regarding the focus of critical thinking skill development to their education domain, with the premise that what happens in the latter is interrelated to what is happening in the former. Thus, any critical thinking development process must apply to both. For years 'coaching', using thought-provoking questions, has been used extensively in the business world for personal development. Just as current questioning techniques have been shown to be invaluable for education purposes, coaching has the potential to do the same in both domains, and with training it can be used successfully by faculty and staff to address the 'whole' student. This paper examines the problem and attempts that have been made to solve it. In offering academic coaching as a solution, the field of coaching is explored and guidance given for using it to develop students' critical thinking skills.

Keywords: critical thinking, higher level thinking, coaching, academic coaching, Socratic Method, Blooms' Taxonomy, Suchman's Model

INTRODUCTION

As early as the 1930s, Osborne (1934) identified 'thought power' as a major educational goal and Siegel (1980) took a gigantic step further taking the position that teaching in any other manner would be immortal. The Rockefeller Commission (1980), The College Board (1983), American Philosophical Association (1985) and the National Council of Teachers (2000) also called for developing students' higher order thinking skills, a component of critical thinking (Tsui, 2008). Later Van Gelder (2005) agreed that the goal of education should be to teach in a critical manner. Critical thinking consists of a set of skills and attitudes which allow students to recognize and authenticate problems (Watson & Glaser, 1994). It encompasses their "ability to make decisions by analyzing issues and evaluating options, recognizing the existence of assumptions and the need to make inferences" (Walker & Diaz, 2003, p. 64). Its importance was later identified in by the Commission on Achieving Necessary Skills as a 'fundamental requirement' (U.S. Department of Labor, 1991). The conclusion formed by Lipman (1988) and later by Van Gelder (2005) posits that critical thinking needs to be infused into the educational system. Further, research conducted by The Conference Board (2006) found that employers place the responsibility for teaching students critical thinking skills on four-year colleges and universities. Flores, Matkin, et al (2012) highlight the fact that this deficiency carries over into the workplace, thus contributing to a leadership void.

The critical thinking deficiency has been studied extensively and not only does research confirm its existence, critical thinking skills have shown minimum improvement over the years (Tsui, 2008; Flores, Matkin, et al, 2012). Starting in 2006 the Wabash National Study of Liberal Arts Education found that there continues to be a deficiency in critical thinking skills by those 1st year college students. Critical thinking research by Arum & Roksa (2011) discovered that after completing two years of school, at least 45% of students showed no improvement and 36% showed no improvement after completing four years.

Although attempts have been made to incorporate critical thinking into the curriculum (Barnes, 2005; Elder, 2005; Tiwari et al., 2006; Tsui, 2008), positive results have not been universal due to the variation in the methods being used, training, and administrative support (Tsui, 2008; Flores, Matkin, et al, 2012). Paul (2005) gives three more specific reasons to explain why teachers are not developing students' critical thinking skills: (1) a lack of understanding of the concept, (2) failure to recognize their deficiency, and (3) devotion to traditional classroom instruction methods. More importantly, in holding on to traditional instruction methods, Pedrosa-de-Jesus, da Silva Lopes, et al (2012) suggest that teachers' preferred style is based on how they learned. In other words, if it worked for them when they were a student, it should work for the students they now teach. However, it is evident that traditional teaching methods that focus on rote memorization, teaching content, and knowledge building, although once effective, are now obsolete and do not facilitate critical thinking (Lizzio & Wilson, 2007). Teaching must now be geared to 'thinking' skills (McGuiness, 1993; Flores, Matkin, et al, 2012) and thus, educators most adjust (Peters, 2007) by trying different teaching methods (Walker & Diaz, 2003).

Alshraideh (2009) magnifies the problem in his discussion of students' failure to think critically. He agrees with Ramer (1999) that teachers are finding that they have to think for their students, thus handicapping them for life. A new pedagogy is needed, one that is focused on teaching students how to think critically rather than teaching course-content (Flores, Matkin, et al, 2012) which could have just the opposite effect (Tsui, 1999). Thus, the goal should be to motivate students to think for themselves (Alshraideh, 2009) both inside and outside the classroom (Walker & Diaz, 2003). Of paramount importance is a process of self-reflection (Wiersema & Licklider, 2009; Flores, Matkin, et al, 2012) where students reassess their biases and open themselves to new ideas that will expand their perspectives.

Critical thinking skills development must happen in colleges and universities. Understanding that education should prepare students for careers, a skill deficiency will have dire consequences for the workforce, and, most importantly, a lack of critical thinking skills translates into an inability to lead (and become future leaders) (Flores, Matkin, et al, 2012). The problem has already manifested itself in the workplace because most leaders lack strong critical thinking skills (Rooke & Torbert, 2005). More importantly, if future leaders lack these skills, they will be less effective and their mistakes could have severe consequences for the future of the organization (Carroll & Mui, 2008; Spreier et al, 2006). In addition, not only does excellent leadership move the firm forward, it also enables the organization to make meaningful contributions to the global economy (Flores, Matkin, et al, 2012). Therefore, education must play a critical role in preparing students to critically think, which in turn produces good leaders who can have a global impact.

For business programs who meet the highest standards of excellence, AACSB Standard 8-Curriculum Management and Assurance of Learning (AoL) provides guidance in achieving their accreditation or reaccreditation goals. Adopted by the Council in April 2013, this standard emphasizes the importance of critical thinking to student success (AACSB, 2012; AACSB, 2013). Critical thinking is a popular and one of the most important assessment areas. However, having critical thinking as a goal, although admirable, presents problems in both its teaching (Harris & Zha, 2013) and assessment (Cavaliere & Mayer, 2012). Based on discussions with business executives and faculty which underscored students' lack of ability to formulate and articulate logical arguments with supporting evidence, AACSB has gone even further, conducting workshops on incorporating critical thinking into the curriculum (AACSB, 2011). Thus, critical thinking will continue to be a key area to be evaluated by AACSB (AACSB, 2007).

For colleges and universities as a whole, the various regional accreditation bodies also require that higher education address the problem. For example, according to the Southern Association of Colleges and Schools Commission on Colleges, in their Foundations for Quality Enhancement (revised by the College Delegate Assembly in December 2011), institutions must demonstrate critical thinking as part of the discussion on student learning outcomes (SACS, 2011).

LITERATURE REVIEW: CRITICAL THINKING (CT)

There is no standard definition or theory of critical thinking. In a comprehensive analysis Flores, Matkin, et al (2012) explained how its meaning has evolved over the years from the simple to more complex with many dichotomous views. To explain the concept, Ennis (1962) offered a general theory on "critical thinking as correct assessing of statements" (p. 83). A more developed definition was provided by Halpern (1996) as "the use of those cognitive skills or strategies that increase the probability of a desirable outcome" (p. 5). However, Ricketts and Rudd (2005) gave it more meaning and posits it as "a reasoned, purposive, and introspective approach to solving problems or addressing questions, with incomplete evidence and information, and for which an incontrovertible solution is unlikely" (Rudd et al, 2000 p. 5). Returning to the simple yet deep, Paul (2005) classifies it as "the art of thinking about thinking, intellectually and with discipline" (p. 28) or "purposeful thinking" (Paul, 1995 p. 64). Again adding complexity, Mazer et al (2007), describes it as "the ability to construct meaning and articulate and evaluate arguments, as well as evaluate sources and support" (p. 176).

The complexity of the concept is further highlighted by having many dichotomous views. Paul (1984), comparing the simplicity of Ennis' theory to later constructs, added a skills-based dichotomous view of critical thinking as having either a weak sense (extraneous) or a strong sense (cognitive). Another dichotomous view involves the technicists who agree with the need for skills but emphasize task accomplishment and performance, versus the rationalists who contend that critical thinking involves logic and evidence (Papastephanou & Angeli, 2007). Leaders of the rationalists school of thought, Siegel (1980) relates critical thinking directly to rationality; while Halpern (1996) adds that it also involves an appraisal element (evaluating the consequences thought processes). Papastephanou and Angeli (2007), positioned between the technicists and the rationalists views, directs thinking into "alternative and yet unexplored cognitive paths" (p. 616). Their view is in line with earlier thought from Burbules (1995) which required students to consider alternatives and the unexpected. Another dichotomous view of critical thinking is that of the

generalists (a universal skill) versus the specifists (requiring more in-depth knowledge on a specific subject) (Davies, 2006). McPeck (1990) sides with the specifists and Davis (2006) merges the two; while Mason (2007) takes a completely different view and sees it as being guided by morals.

There are, however, key aspects of various definitions that provide a more functional view of critical thinking. Lipman (1988) defined it as "skillful, responsible thinking that facilitates good judgment because it (1) relies upon criteria, (2) is self-correcting, and (3) is sensitive to context" (p. 39). Using the Delphi Method, Facione (2006) identifies six core skills: "analysis, inference, interpretation, explanation, self-regulation, and evaluation, and seven dispositions: inquisitive, systematic, judicious, truthseeking, analytical, open-minded, and confident in reasoning" (p. 215). In summary, Flores, Matkin, et al (2012) propose that the key elements are "skills, rationality, openness to alternative viewpoints, suspension of prior constructions, introspective reflection, and non-egocentric processing" (p. 5), but reflection is critical to the process (Grossman, 2009; Lizzio & Wilson, 2007). Thus, in brief, critical thinking involves using prior beliefs to process new information (Papastephanou & Angeli, 2007; West et al., 2008; Paul & Elder, 2001; Van Gelder, 2005), while thinking logically, even when logic and our beliefs differ (West et al, 2008).

Overview: Questioning Techniques Used in Academia

Critical thinking practice is considered to be a major ingredient to student learning and success (Cotton, 1991; Napell, 2001). Attempts have been made to incorporate it into the curriculum, but to be successful teachers must know how to ask the right questions (Napell, 2001). Some are doing just that; however, most are asking "confusing, dead end and 'yes/no' questions that contribute nothing to students' development of critical thinking skills" (Alshraideh, 2009, p. 59). Early thinking by Falkof & Moss (1984), as discussed by Alshraideh, also calls to light the importance of asking the right questions (rather than giving answers) if we want to elicit student thinking. In addition, as a follow-up to the early call by the National Commission on Excellence in Education (1983) for improvements in the U.S. Education System, Pedrosa-de-Jesus, da Silva Lopes, et al (2012) propose that education reform is still needed and questioning skills should be a component (because it can lead to critical thinking). As a guide in developing critical thinking skills in college students, teachers can turn to Bloom's Taxonomy: analysis, synthesis and evaluation (Walker & Diaz, 2003; Alshraideh, 2009; Pinkney & Shaughnessy, 2013); Paul's Socratic Method: deep probing, systemic and disciplined (Paul & Elder, 2007); or Suchman's Model: questioning and inquiry (Alshraideh, 2009). Non-questioning thinking models include Piaget's Theory on Stages of Cognitive Development (Stage 4-formal operational) and Ennis' Critical Thinking Dispositions (clarity, basis, inference, and action) (Pinkney & Shaughnessy, 2013). In comparison, all are primarily used for math and science education with proficiency mostly limited to teachers in those disciplines. All but the latter two involve the use of questions, and the questioning techniques used in the Socratic Method and Suchman's Model are also being taught to students.

Bloom's Taxonomy

Bloom's Taxonomy is considered one of the most widely recognized (Kracl, 2012) and used teaching and questioning techniques (Kagan, 2005). The technique is primarily used for assessing students based on their higher order thinking (Black & Ellis, 2010). Alshraideh (2009) offers a discussion of Blooms' Taxonomy as a five-step hierarchical order for thinking (comprehension, application, analysis, synthesis and evaluation). The latter three question types are geared to facilitating higher-order thinking. More specifically, "question analysis recognizes knowledge as a part of reasoning; synthesis questions call for imagination and original thinking; and evaluation questions require judgment based on self-imposed standards" (p. 59). However, there is debate as to whether students must progress through each skill in their respective order, or whether skipping steps will accomplish the desired results. Walker & Diaz (2003) support the use of 'questioning' as a teaching technique to "promote the analysis, synthesis, and evaluation levels of Bloom's Taxonomy" (p. 64); however it is used primarily for math and science education.

Paul's Socratic Method

Paul & Elder (2007) defined the Socratic Method as a "systematic, disciplined, and deep" (p. 36) questioning technique used for a variety of purposes such as solving problems and analyzing thought. For academic purposes, it can best be used to: (1) probe student thinking, and (2) help students learn and apply the technique (p. 36). It is derived from an ancient legend whereby Socrates encourages young men in Athens to "question assumptions and discern subtleties" (Pinkney & Shaughnessy, 2013, p. 346). Although used extensively in academia, its use has been concentrated in the sciences. A key aspect of the method is the scaffolding technique, whereby "the student is given hints and additional questions are posed, to move them in a direction that generates new ideas and perspectives" (Braun, 2004, p. 234). This scaffolding process is integral to the critical thinking process (Walker & Diaz, 2003).

Paul & Elder (2007) make a strong connection between critical thinking (a tool for understanding the thought process) and Socratic questioning (using the tool to develop questions that will help aid in 'thought'). For them the goal is "to establish an additional level of thinking, a powerful inner voice of reason" (p.36). Thus critical thinking is a tool to explore reasoning, and it must be understood in order for the Socratic questioning process to be effective. Socratic questioning is also "analytical in that the whole of reasoning or thinking must be dissected into parts with questions targeted at each part" (p. 36). When teachers use the process effectively, students recognize the value of questioning and can apply it "in other classes and in other areas of their lives" (Paul & Elder, 2007, p. 37).

Suchmans' Inquiry Model

Similar to the Socratic Method, Alshraideh (2009) discusses Suchmans' Model as focusing on "training students in questioning skills that will allow them to learn from their own knowledge and experiences" (p. 60). The teacher's role is only to assist them in using "their cognitive skills creating and answering questions" (p. 60). Thus, students become self-learners. The model (questioning and inquiry) has four steps for solving problems: (1) students should ask and think, (2) analyzing their thinking results in conscious awareness, (3) additional strategies to use, and (4)

students learn to develop alternatives (p. 60-61). Alshraideh's research confirms the success of the model for accomplishing the goal of developing critical thinking skills; however it is being used mostly for in-class mathematics and science education.

THE COACHING PROFESSION

Origin and Development

As chronicled by (Davison & Gasiorowski, 2006), coaching became an independent discipline in the 70s and has since evolved into a recognized profession with a set of standards, a professional organization (International Coach Federation or ICF), and a number of training institutions. Included are also coaching models, curriculums, strategies and protocols. There is even a field of study called Coaching Psychology. Thomas Leonard is often called the founder of coaching (Richardson, 1999) and he developed the first formal coach training program called Coach University. Although great coaches require certain knowledge, skills and abilities, anyone possessing these skills can become a coach, regardless of their background. Of critical importance are excellent communication skills and the ability to ask powerful questions. To demonstrate proficiency, the coaches now pursue professional designations and credentials through one of the professional associations. Paramount to their success is a desire to help individuals develop, accomplish their personal and professional goals (Whitworth, et al, 1998), expand their possibilities, and draw upon their resources (Davison & Gasiorowski, 2006).

The Coaching Technique

Coaching is described as a tool for performance improvement in both the personal and professional lives (Davison & Gasiorowski, 2006) to help develop attitudes and skills (Whitworth, Kimsey-House, & Sandahl, 1998). Empowering others by unlocking their potential is a key coaching activity. It is accomplished by asking powerful probing questions and allowing the person to think and formulate an answer/response. If stuck, the coach can offer guidance but only by way of additional (follow-up) questions (scaffolding). The general consensus is that the more questions posed (and answered), the deeper the learning. More importantly, students will begin to mimic their teachers by asking and answering their own questions, thus developing an intentional mental thought process (Wiersema & Licklider, 2009).

As discussed by Wiersema & Licklider (2009), the focus is on the students' metacognitive awareness of their thinking rather than specific course concepts, and it is this metacognition process of "thinking about one's own thinking" (p. 123) that causes learning to occur. To be successful, students must broaden their perspective (making it different and better) by removing personal "biases, beliefs and assumptions" (Wiersema & Licklider, 2009, p. 119). This in turn will give them different and better perspectives on the issue (Moustakas, 1994). Other dimensions to coaching include reflection (Robinson & Gahagan, 2010) and self-discovery (Webberman, 2011). The framework developed by Robinson & Gahagan (2010) identifies self-assessment (gathering baseline data), reflection (interests, goals, and motivations) and goal setting (strategy) as being keys to success. Their process flows from the concept of self-authorship which is based on a strong belief system, identity recognition (Baxter Magolda & King, 2004) and self-discovery

(Baxter Magolda, 2007). Given its richness, this is indeed a developmental technique worthy of embracing and one that can be easily learned.

Coaching in Academia

Each of our worlds is multifaceted, and in addition, the world of college students is filled with many contradictions. Prior to college, many have enjoyed (1) parents who told them what to do and how to do it, and (2) school teachers who told them the exact course content they needed to know (especially relative to their exams). When they arrive in this new world of freedom as young adults, they (1) want to make their own decisions, (2) know what they are doing, and/or (3) don't want anyone telling them what to do. However, when it comes to the education, they revert to their childhood or k-12 years and expect someone else to think for them and to be told everything they need to know (Wiersema & Licklider, 2009). In addition, when faced with a course-related problem, they expect an advisor or counselor or teacher to solve it for them. In many cases, advisors, counselors and teachers are doing just that. However, by doing so they are impeding students from thinking for themselves, and thus are handicapping students for life.

In classrooms across the country, efforts are being made to reverse this trend by using techniques to not only teach students to 'think', but to 'think critically', like the Socratic Method, Bloom's All employ 'questioning' techniques. Yet, Taxonomy and Suchmans' Inquiry Model. unfortunately, these efforts are limited to course-specific content. According to the Bureau of Labor Statistics American Time Use Survey (2013), based on an average weekday (24-hour clock), full-time college students only spend 14% of their time engaged in educational activities (i.e., classes, reading, homework, etc.). Thus, at present critical thinking skill development is only taking place in about 14% of a student's day. Aside from 36% of their time sleeping, the remainder of their time is spent mostly in leisure/sports - 16%, working and related activities- 11%, and traveling - 6%, and eating and drinking - 4%, with 10% of their time engaged in 'Other' activities. Given the assumption that all activities aside from sleeping involve 'thought', 'forming conclusions', 'decision-making', 'discussion', 'argument', 'opinions', and 'debate', these are opportunities for students to practice, develop and apply critical thinking skills, especially when interacting with other students (Walker & Diaz, 2003). More importantly, the general consensus is that cognitive development is not limited to the classroom (Strauss & Terenzini, 2007). In addition, early research showed that higher-order thinking skills are dependent upon students' involvement in a wide range of experiences outside the classroom (Terenzini, Pascarella, & Blimling, 1996). However, no one activity alone will have a significant effect; rather it is the cumulative effect of numerous activities and the more varied the better (Pascarella & Terenzini, 1991). Restricting the development of these skills to the classroom and/or educational activities overlooks other aspects of their lives (Flores, Matkin, et al, 2012), and fails to maximize learning (Strauss & Terenzini, 2007, Webberman, 2011).

Given students' 'use of time', there are clearly two dimensions to a college student's life consisting of education- and non-education-related activities. Seldom do teachers or advisors have in-depth conversations with students regarding non-education-related issues, such as relationships, health concerns, family and financial problems, or legal issues, unless they have a



Bureau of Labor Statistics, American Time Use Study, 2008-12

direct connection to education and academics. However there are advisors and teachers who feel there role is limited to the latter. In a student-centered culture, everyone (faculty and staff and especially tutors, advisors and counselors) must play a role in helping students, including when it comes to addressing matters that are non-education-related. This does not mean everyone (or anyone for that matter) should engage in these discussions with the goal of telling them what to do or solving their problems. Instead, this is another excellent opportunity for the development of their critical thinking skills, so that they can successfully analyze situations, evaluate alternatives actions and solutions, and make smart decisions (Webberman, 2011).

Academic Coaching (AC) Practice

Coaching, by a myriad of titles such as executive coach, career coach, life coach, relationship coach, business coach, and leadership coach has been used extensively in the business world. Each title connotes a coach's specialty and estimates have it that there are over 100 (Davison & Gasiorowski, 2006). Thus, working in academia, it is only logical that this specialty should be referred to as 'academic coaching' (AC). The profession of academic coaching evolved over the last ten years, and comes under the general heading of life and/or business coaching (both of which are under the umbrella of the ICF) (Webberman, 2011).

The totality of the academic coaching experience is explained by Carol Carter, an academic coach, in her interview with Webberman (2011). Carter defines it as "an ongoing partnership to help students produce fulfilling results in their lives" (p. 19). The core of AC is "powerful questioning, vision, and accountability" (p. 18) and the goal is to get students to "deepen their learning, take responsibility for their actions, improve their effectiveness, and consciously create their outcomes in life" (p. 19). To truly maximize the dialogue, questions must be "specific and open-ended" (p. 19) to get the student talking. To keep the conversation going, additional follow-up and probing questions are asked until the student has thoroughly analyzed the situation, explored alternatives and reached a logical conclusion. Thus, students develop a vision for facing adversity and

challenges in the future (Walker & Diaz, 2003), and learn to hold themselves accountable for their decisions (Webberman, 2011).

Faculty and staff should employ AC to address education and non-education related matters (Walker & Diaz, 2003), because the two are interrelated and interconnected (Pascarella & Terenzini, 2005), and critical thinking is important to both (Flores, Matkin, et al, 2012). Thus, any intervention must deal with the 'whole' student (Webberman, 2011). Research by Day, Kington, et al (2006) examined the personal and professional selves of teachers and concluded that both are "integral to one another" (p. 601) and, personal experiences are connected to professional performance (Goodson & Hargreaves, 1996; Acker, 1999). In addition, early research by Nais (1989) contends that we must acknowledge the personal in order to better understand the professional. Liking students to teachers, we can divide their lives into similar classifications with student as 'person' (non-education-related) and student as 'learner' (education-related). With this analogy we can conclude that the life of the 'person' is integral to that of the 'learner' and the experiences of the 'person' are linked to those of the 'learner'. Day, Kington, et al (2006) conclude that there are "unavoidable interrelationships between professional and personal identities" (p. 603) and if we truly want to understand the former, we must get to know the latter (p. 604).

In dealing with the 'whole' student, not only must they develop a "social relationship or emotional bond with the student" (Webberman, 2011, p. 18) prior to the coaching intervention, their relationship will be enhanced as a result thereof. The effect of the academic coaching experience on matters of the 'person' (to which they spend 50% of their non-sleep time) will create an 'awaking' that can transcend to matters of the 'learner'. Therefore, when a question is asked either in-or out-of-class regarding course content, the student can skillfully employ an analytical thinking process to arrive at and articulate a well-thought out response (Walker & Diaz, 2003). Carol offers three suggestions to faculty and staff for successfully using coaching: (1) learn to formulate and apply powerful thought-provoking questions, (2) gain a commitment from students to the process, and (3) ask students to reflect on the process (what they did, how they did it, the results and areas for improvement) (Webberman, 2011, p.19). Unfortunately, making the transition to coaching may be problematic for faculty and staff due to their time constraints. Research by Daines (1986) showed that regardless of the question type, two seconds was the average wait time for students' responses. In applying AC, more time will be needed to give students time to reflect, analyze, formulate and respond. On the other hand, coaches have "a strong sense of value they experience from helping others grow and develop" (Davison & Gasiorowski, 2006). For faculty and staff in higher education who share those qualities, coaching is an ideal fit.

CONCLUSION

Recognizing the importance of getting students to think critically, the role of "educators" in any academic setting today has to change from someone who gives answers to someone who asks thought-provoking questions (i.e., 'asking versus telling') (Wiersema & Licklider, 2009). Current techniques like Bloom's Taxonomy, The Socratic Method and Suchman's Model have an education focus and are used primarily for mathematics and science. Therefore, faculty and staff outside these fields of study may find them hard to learn. On the other hand, although faculty and staff may not have training in coaching skills, they can be easily learned and practiced by anyone. Coaching will change the postsecondary student development model. However, the application of

coaching skills to academia has been shown to successfully promote critical thinking and success (Webberman, 2011). Thus, higher education can learn a lot from the coaching profession which has some basic principles and concepts that can be applied successfully. Once students learn to employ their new critical thinking skills to address the personal issues faced related to non-educational matters, it will be easier to get them to do the same in dealing with the more abstract education-related matters. Thus they will have developed critical thinking skills that will benefit them for life (and especially in their careers).

FUTURE RESEARCH

Just as there has been extensive research on the use of Bloom's Taxonomy, the Socratic Method and Suchman's Model to validate the use of 'questioning' to develop critical thinking skills, the same research is needed on academic coaching. To better support its use, the effectiveness of academic coaching should be measured using one of the well-established CT test: The California Critical Thinking Skills Test by Insight Assessment, Cornell Critical Thinking Test or the Watson-Glaser Critical Thinking Appraisal test (Watson & Glaser, 1991). Academic coaching research should also examine its potential benefit in other areas such as motivation, time management, goalsetting and retention. In addition, research is needed to compare the application of academic coaching to both the education-related and non-education-related lives of students. Current academic coaches have a responsibility to further the practice by embarking on a mission to develop an academic coaching model and 'best practices' for future coaches.

REFERENCES

Acker, S. (1999). The realities of teachers' work: never a dull moment. London: Cassell. Arum, R. & Roksa, J. (2011). Academically Adrift: Limited learning on College Campuses. Chicago: University of Chicago Press. Association to Advance Collegiate Schools of Business International. (2007). AACSB Assurance of Learning Standards: An Interpretation. Available online at http://www.aacsb.edu/publications/whitepapers/AACSB_Assurance of Learning.pdf. Association to Advance Collegiate Schools of Business International. (2011). Critical Thinking Event Description. http://www.aacsb.edu/conferences seminars/seminars/cdsct Oct 2011 tampa.asp. Association to Advance Collegiate Schools of Business International. (2012). Eligibility Procedures and Accreditation Standards for Business Accreditation. Tampa, FL: AACSB. http://www.aacsb.edu/accreditation/standards-busn-jan2012.pdf. Association to Advance Collegiate Schools of Business International. (2013). Eligibility procedures and accreditation standards for business accreditation [Electronic version]. Retrieved May 20, 2013, from http://aacsb.edu/accreditation/business/standards/2013/ Alshraideh, M. (2009). The Effect of Suchmans' Inquiry Model on Developing Critical Thinking Skills among University Students. International Journal of Applied Educational Studies. 4(1), 58-69. Barnes, C.A. (2005). Critical Thinking Revisited: Its past, present, and future. New Directions for Community Colleges, 130, pp. 5-13. Baxter Magolda, M. (2007). Self-authorship: The foundation for twenty-first-century education, New Directions for Teaching and Learning, 109, pp. 69-83. Baxter Magolda, M. & King, P.M. (2004). Learning partnerships: Theory and models of practice to educate for self-authorship. Sterling, VA: Stylus. Black & Ellis (2010). Evaluating the level of critical thinking in introductory investments courses. The Free Library: Academy of Educational Leadership Journal. http://www.thefreellibrary.com Braun, N. M. (2004). Critical Thinking in the Business Curriculum. Journal of Education for Business. 79(4), 232-236. Burbules, N.C. (1995). Forms of Ideology-critique: A pedagogical perspective, in: P. McLaren & J. Giarelli (eds). Critical theory and educational research (Albany, NY, State University of New York Press. Bureau of Labor Statistics American Time Use Survey (2013). Washington, DC: U.S. Government Printing Office. Carroll, P.B. & Mui, C. (2008). 7 Ways to Fail Big, Harvard Business Review, 86:9, pp. 82-91. Cavaliere, F. & Mayer, B. W. (2012). Flooding the zone: A ten-point approach toassessing critical thinking as part of the AACSB Accreditation process. *Education*. 133(2), 361-366. Cotton, K. (1991). Teaching thinking skills. Northwest Regional Educational Laboratory's School Improvement Research Services. Daines, D. (1986). Are Teachers Asking Higher Level Questions? Education. 106, p. 368-374. Davies, W. M. (2006). An 'Infusion' Approach to Critical Thinking: Moore on the critical thinking debate, Higher Education Research & Development, 25:2, pp. 179-193. Davison, M. & Gasiorowski, F. (2006). The Trend of Coaching: Adler, the Literature, and Marketplace Would Agree. The Journal of Individual Psychology, 62(2), 188-201. Day, C., Kington, A., Stobart, G. & Sammons, P. (2006). The personal and professional selves of teachers: stable and unstable identities. British Educational Research Journal. 32(4), pp. 601-616. Elder, L. (2005). Critical Thinking as the Key to the Learning College: A professional development model. New Directions for Community Colleges, 130, pp. 39-48. Ennis, R. H. (1962). A Concept of Critical Thinking, Harvard Educational Review, 32:1, pp. 81 111. Ennis, R.H. (1987). A taxonomy of critical thinking dispositions and abilities. In J.B. Baron & R.J. Sternberg (Eds.) Teaching Thinking Skills: Theory and Practice. (9-26). New York:

W.H. Freeman and Company.

Facione, P.A. (2006). Critical Thinking: What it is and why it counts (Millbrae, CA, California Academic Press).

Falkof, L., & Moss, J. (1984). When teachers tackle thinking skills. *Educational Leadership*, 4-9.

Flores, K. L., Matkin, G. S., Burbach, M. E., Quinn, C. E. & Harding, H. (2012). Deficient Critical Thinking Skills among College Graduates: Implications for leadership.

Educational Philosophy and Theory. 44(2). doi:10.1111/j.1469- 5812.2010.00672.x

Goodson, I.F. & Hargreaves, A. (Eds) (1996). Teachers' professional lives. London: Falmer Press.

Grossman, R. (2009). Structures for Facilitating Student Reflection. *College Teaching*, 57(1), pp. 15-22.

Halpern, D. F. (1996). Thought and Knowledge: An introduction to critical thinking 3rd ed. (Mahwah, NJ, Lawrence Erlbaum Associates).

Harris, C. & Zha, S. (2013). Concept Mapping: A Critical Thinking Technique. *Education*. 134 (2), pp. 207-211.

http://www.sacscoc.org/pdf/2012PrinciplesOfAcreditation.pdf

Kagan, S. (2005). "Rethinking Thinking. Does Bloom's Taxonomy Align with Brian Science?" *Kagan Online Magazine* (Fall). www.kaganonline.com

Kracl, C. L. (2012). Review or True? Using Higher-Level Thinking Questions in Social Studies Instruction. *The Social Studies*. 103, 57-60.

Lipman, M. (1988). Critical Thinking—What Can It Be? *Educational Leadership*, 46:1, pp. 38-43.

Lizzio, A. & Wilson, K. (2007). Developing Critical Professional Judgment: The efficacy of a selfmanaged reflective process, *Studies in Continuing Education*, 29:3, pp. 277-293.

Mason, M. (2007). Critical Thinking and Learning, *Educational Philosophy and Theory*, 39:4, pp. 339-349.

Mazer, J.P., Hunt, S. K. & Kuznekoff, J.H. (2007). Revising General Education: Assessing a critical thinking instructional model in the basic communication course, *The Journal of General Education*, 56:3-4, pp. 173-199.

McGuiness, C. (1993). Teaching Thinking: New signs for theories of cognition. *Educational Psychology*, 13(3/4), pp. 305-316.

McPeck, J.E. (1990). Critical Thinking and Subject Specificity: A reply to Ennis, *Educational Research*, 19:4, pp. 10-12.

Moustakas, C. (1994). Phenomenological research methods. Thousand Oaks, CA: Sage.

Nais, J. (1989). Primary teachers talking. London: Routledge & Kegan Paul.

Napell, S. (2001). Using questions to enhance classroom learning. Berkeley, CA: University of California at Berkeley.

Osborne, W. J. (1934). Testing Thinking, Journal of Educational Research, 27:1, p. 402.

Papastephanou, M. & Angeli, C. (2007). Critical Thinking Beyond Skill, *Educational Philosophy and Theory*, 39:6, pp. 604-621.

Pascarella, E. T., & Terenzini, P.T. (1991). How College Affects Students: Findings and Insights from Twenty years of Research, Jossey-Bass, San Francisco.

Pascarella, E., & Terenzini, P. (2005). How college affects students. San Francisco: Jossey-Bass.

Paul, R. (1984). Critical Thinking: Fundamental to education for a free society, *Educational Leadership*, 42:1, 4-14.

Paul, R. (1995). How to Prepare Students for a Rapidly Changing World. Santa Rosa, CA: Foundation for Critical Thinking.

Paul, R. (2005). The State of Critical Thinking Today, *New Directions for Community Colleges*, 130, pp. 27-38.

Paul, R. & Elder, L. (2001). Critical Thinking: Inert information, activated ignorance and activated knowledge, *Journal of Developmental Education*, 25:2, pp. 36-37.

Paul, R. & Elder, L. (2007). Critical Thinking: The Art of Socratic Questioning. *Journal of Developmental Education*. 31 (1), pp. 36-37.

Pedrosa-de-Jesus, H., da Silva Lopes, B., Moreira, A., & Watts, M. (2012). Contexts for questioning: two zones of teaching and learning in undergraduate science. *High*

Education. 64, pp. 557-571.

Peters, M.A. (2007). Kinds of Thinking, Styles of Reasoning, *Educational Philosophy and Theory*, 39:4, pp. 350-363.
Pinkney, J. & Shaughnessy, M., F. (2013). Teaching Critical Thinking Skills: A Modern Mandate. *International Journal of Academic Research*. 5(3), 346-352. doi:10.7813/2075-4124.2013/5-3/B.52.
Ramer, C. (1999). The influence of the Jefferson centennial practicum on the self-efficacy of the five social studies student teaches. *DAI*, 59(9), 3146A.
Richardson, C. (1999). Take time for your life. New York: Broadway Books.
Ricketts, J.C. & Rudd, R.D. (2005). Critical Thinking Skills of Selected Youth Leaders: The efficacy of critical thinking, dispositions, leadership, and academic performance. *Journal*

of Agricultural Education, 46(1), pp. 32-43.

Robinson, C. & Gahagan, J. (2010). Coaching Students to Academic Success and Engagement on Campus. Wiley Online Library. Wileyonlinelibrary.com. doi:10:1002/abc.20032
Rooke, D. & Torbert, W. R. (2005). Transformations of Leadership. *Harvard Business Review*, 83(4), pp. 67-76.

Rudd, R.D., Baker, M.T. & Hoover, T.S. (2000). Undergraduate Agriculture Student Learning Styles and Critical Thinking Abilities: Is there a relationship? *Journal of Agricultural Education*, 41(3), pp. 2-12.

Siegel, H. (1980). Critical Thinking as an Educational Ideal. Paper presented at the Annual Meeting of the American Educational Research Association, April, Boston, MA. Spreier, S.W., Fontaine, M.H. & Malloy, R.L. (2006). Leadership Run Amok, *Harvard Business Review*, 84(6), pp. 72-82.

Strauss, L.C. & Terenzini, P.T. (2007). The Effects of Students in-and out-of-class Experiences on Their Analytical and Group Skills: A Study of Engineering Education. *Research in Higher Education*, 48 (8), pp. 967-992.

Terenzini, P.T., Pascarella, E.T., & Blimling, G.S. (1996). Students' out-of-class experiences and their influences on learning and cognitive development: A literature review. *Journal of College Student Development*. 37: 149-162.

Tiwari, A., Lai, P., So, M. & Yuen, K. (2006). A Comparison of the Effects of Problem-Based Learning and Lecturing on the Development of Students' Critical Thinking, Medical *Education*, 40(6), pp. 547-554.

Tsui, L. (1999). Courses and instruction affecting critical thinking. Research in Higher Education. 40(2), 185-200.

Tsui, L. (2008). Cultivating Critical Thinking: Insights from an Elite Liberal Arts College. The *Journal of General Education*. 56 (5), pp. 200-227.

U.S. Department of Labor (1991). What work requires of schools. A SCANS report for America 2000. Washington, DC: U.S. Government Printing Office.

Van Gelder, T. (2005). Teaching Critical Thinking, College Teaching, 53(1), pp. 41-46.

Walker, S. & Diaz, L. G. (2003). Promoting Critical Thinking in the Classroom. *Athletic Therapy Today*, 8(5), pp. 64-65.

Watson, G., & Glaser, E. (1991). The Watson-Glaser Critical Thinking Appraisal. New York: Harcourt, Brace, Jovanvich.

Watson, G. & Glaser E. (1994). Test Manual. The Watson Glaser Critical Thinking Appraisal. San Antonio, TX: The Psychological Corporation.

Webberman, A. L. (2011). Academic Coaching to Promote Student Success: An Interview with Carol Carter. *Journal of Developmental Education*.35(2), 18-20.

West, R.F., Toplak, M.E. & Stanovich, K.E. (2008). Heuristics and Biases as Measures of Critical Thinking: Associations with cognitive ability and thinking dispositions, *Journal of Educational Psychology*, 100(4), pp. 930-941.

Whitworth, L., Kimsey-House, H., & Sandahl, P. (1998). Co-active coaching: New skills for coaching people toward success in work and life. Palo Alto, CA: Davies-Black.

Wiersema, J. A. & Licklider, B. L. (2009). Intentional Mental Processing: StudentThinking as aHabit of Mind. Journal of Ethnographic & Qualitative Research.3, 117-127.

MAKING MARKETING CONNECTIONS (MMC) TO ENHANCE STUDENT LEARNING

Dr. Gwendolyn Catchings, Jackson State University

ABSTRACT

AACSB Standard 8-Curriculum Management and Assurance of Learning (AoL) has a major impact on business program development. It allows for the use of direct measures which include projects, presentations and portfolios as evidence of learning. The consensus is that direct measures that prepare students for real-world experiences will increase learning and aid in their ability to secure employment. The challenge is to "close- the-loop" between what students learn and what the marketing profession needs. Unfortunately, most marketing students see their marketing program as a series of independent marketing courses, and fail to see the interrelationship among the courses and cumulative effect of the knowledge to be gained, thus limiting their understanding of the comprehensiveness of the marketing profession. Like the "running case" found in some textbooks, "Making Marketing Connections" (MMC) seeks to overcome this challenge by using related projects to connect major marketing courses, enhance learning, and increase the employability of the students. This integrated learning approach has application not only for undergraduate marketing programs but for every business program.

Keywords: critical thinking, curriculum development, AACSB, case studies, class projects, portfolios

INTRODUCTION

Adopted by the Council in April 2013, AACSB Standard 8-Curriculum Management and Assurance of Learning (AoL) has a major impact on business program development (Weldy & Turnipseed, 2010). This Standard allows for the use of direct measures as evidence of learning (Martell, 2007), and direct measures are very important and include projects, presentations and portfolios (Luescher and Sinn, 2003; Helle, Tynjala and Olkinuora, 2006; Pringle & Michel, 2007; Savage, Chen and Vanasupa, 2007; Weldy & Turnipseed, 2010). Direct measures that prepare students for real-world experiences increase learning (Anselmi and Frankel, 2004; Weldy and Turnipseed, 2010) and aid in their ability to secure employment. The goal is to "close-the-loop" by eliminating the gap between what students learn and what business needs (Clarke, 2007, Buttermore, 2011). Unfortunately, most marketing students see each course in their major in isolation (i.e., a series of independent courses) and fail to see the interrelationship among the courses, and their synergy and cumulative effect of the knowledge to be gained, especially relative to the marketing profession (Bobbitt, Inks, Kemp, and Mayo, 2000; Anselmi and Frankel, 2004). Business schools continue to face challenges in meeting the requirements of AACSB Standard 8-Curriculum Management and Assurance of Learning (AoL), and innovative pedagogies are needed to solve the problem (AACSB, 2013).

THE INNOVATION: MMC

"Making Marketing Connections" (MMC) is a teaching innovation that attempts to address the problem business schools face. It serves a vital function in explaining the comprehensiveness of business by integrating the various marketing activities (Athavale, Davis and Myring, 2008). MMC can have a major impact on AoL by directing activities to the major level (considered more effective) than the degree level (Marshall, 2007). It connects courses in the marketing curriculum using related class projects to enhance learning and increase the employability of the students. MMC focuses on addressing two major business school concerns:

(1) The challenges in meeting AACSB Standard 8-Curriculum Management and Assurance of Learning (AoL) (by using class projects and portfolios to provide proof of the marketing programs' compliance), and

(2) The need to enhance and reinforce student learning in preparation for their marketing careers (by using related projects to connect major marketing courses and the compilation of their projects into career portfolios).

As to student learning, the goal of MMC is to:

(1) Help students understand the interconnectedness of and think holistically about the various marketing courses in their program;

(2) Enhance student learning from each course as the foundation for the capstone course (giving it more meaning);

(3) Give students an opportunity to enjoy a comprehensive real-world marketing experience in preparation for their marketing careers; and

(4) Help support compliance with AACSB Standard 8.

Thus, MMC will not only connect the various marketing courses to enhance student learning and meet AACSB requirements, it will also connect students with the marketing profession.

JUSTIFICATION FOR USING MMC

In justification for using MMC, the marketing profession offers majors a variety of employment options. Regardless of the option the student chooses, there is a need for a high degree of proficiency in all aspects of marketing because:

(1) Once employed, the student will be working with individuals from other marketing areas (i.e., advertising, marketing research, consumer behavior, sales), and

(2) Students must understand the interconnectedness of the various marketing areas in order to fully understand the profession.

The core problem is that many students are challenged to remember concepts learned in prior courses and apply those concepts in future courses. In addition, they rarely focus on the course objectives (what they should learn). Instead they tend to look more to the course requirements (graded assignments) for each course in hopes that they can do well enough to "pass the class". Although admirable, this approach overlooks the need to connect the knowledge to be learned in each of the marketing courses as the courses are taken. Therefore, students fail to see the "big picture". The marketing capstone course, Marketing Policies & Strategies, attempts to make the connection by integrating all areas of marketing. However, this course is taken as a stand-alone course in the last semester of their marketing program. Not only is there an assumption that students remember what was taught (learned) in each prior course, but that they understand the

interconnectedness of the courses as they were taken. MMC was developed with the idea that this assumption may not hold true.

Based on observation of students in two earlier classes, students conducted a consumer research project and wrote an advertising plan, with each course and project treated independently. Although students may have understood consumer behavior concepts, they did not fully grasp the need to apply those concepts in the Advertising course. Instead, in writing the advertising plan they would attempt to address each item in the outline, choose a couple of media forms and create a few advertisements. When asked to explain the target market used for the advertisements, and/or their motivation and justification for using various media forms and creative work, they struggled to explain.

IMPLEMENTATION OF MMC

In addition to marketing management as a foundation course, marketing majors are required to take eight (8) marketing courses: Advertising, Retail Management, Marketing Research, Consumer Behavior, Marketing Channels, Personal Selling, International Marketing and Marketing Policies & Strategies. Each course has a set of course objectives (learning outcomes) as mandated by AACSB. The objectives are well-established and are generated as part of the program development process. However, professors are free to develop their own course requirements as long as they comply with the course objectives.

Although each of the eight marketing courses is taught in isolation, it is valuable to student learning if each course is linked as they are taken (so students will see their interrelatedness). The best way to link courses is by first developing a comprehensive case study, one that is applicable to all of the courses. For example, and in brief, "the student is an entrepreneur who is in discussions to import a foreign product to the U.S". Although each class project is different, the same case and foreign product can be used. (The instructor can either provide students with a country and corresponding foreign product, or allow students to choose and/or identify their own.) Of critical importance is the quality of the case study used.

A second step in linking courses is in developing course projects. College students understand that they may be required to complete a course project (as thoroughly explained in their course syllabus). Including course projects should not have a negative effect on students' ability to successfully complete the course because although projects take time to complete, no additional resources are needed. On the other hand, faculty will have to devote time to developing innovative and creative class projects (and monitoring and grading them) to ensure that they will connect and address their various course objectives, and reflect real-world experiences in the profession. As an example of basic course projects:

- 1. International Marketing: Thoroughly analyze the international marketing opportunity and strategy for product.
- 2. Consumer Behavior: Develop a consumer profile (target markets) for the product.
- 3. Advertising: Develop a plan to advertise the product.
- 4. Personal Selling: Develop a B2B strategy to sell the product.

A third step is the development of student portfolios to demonstrate their successful completion of the course projects in each course. These portfolios can be displayed during the AACSB site visit and students can use them in seeking employment (to demonstrate their proficiency in the various marketing areas).

PILOT STUDY

The courses that were used for the pilot study are taught by the author and included Consumer Behavior (Fall 2013) and Advertising (Spring 2014), and the problem was identified by observing marketing majors in those prior courses. There were 20 students in the Consumer Behavior course and 20 in the Advertising course. However, only half of the students in the Spring course were in the Fall course. Using the MMC concept, each student-team was assigned a foreign product in Consumer Behavior class and required to develop a comprehensive consumer profile (primary and secondary target markets) using data from the DDB Life Style Study (as found in the Consumer Behavior textbook by Hawkins & Mothersbaugh, published by McGraw-Hill). Unfortunately, only two team profiles were sufficient enough for further use. In the Advertising course the following semester, students were placed in 2-person teams and the two profiles were distributed. Although there was a duplication of profiles, the creative nature of the project made it difficult to justify any two plans being the same. For those who were not in the Fall course, a brief presentation on the Consumer Behavior project was given by the students who were. Results showed that students who were in the Consumer Behavior course (and completed the consumer profile project) showed an increase in comfort level, accuracy and success in writing the advertising plans. This was attributed to their familiarity with the scenario, product and consumer profile development process. More importantly, they had a better understanding of the interrelatedness between Consumer Behavior and Advertising, and saw the advertising plan as the "next step" in the marketing process and profession. With these positive results, the second phase of the pilot study will include International Marketing and Personal Selling. Although MMC's effect on the capstone course has not been tested, students' performance should be enhanced due to the thoroughness and connectedness of the projects (and discussions) in prior courses.

EXAMPLE OF INTEGRATED COURSE PROJECTS

You are considering and/or have entered into a licensing agreement with the manufacturer of a product that originated in a foreign country and has never been sold in the U.S. With thorough research and analysis, you will attempt to import and market this product to the U.S. market.

	Course Objectives	Class Project
International	1. Understand the differences	Each student will be assigned a foreign
Marketing	between marketing in the U.S. versus in a foreign country.	country and will identify a foreign product that has the potential to be
	2. Identify sociocultural, governmental/legal, political, ecological, technological and	successfully marketed in the U.S. You will conduct research, and discuss/justify your proposed marketing

Table 1

diversity and ethical strategic	strategy (product, price, promotion,
decision making issues.	distribution), identifying environment
	evaluate the effectiveness of the foreign
	marketing strategy for the product with
	your proposed U.S. strategy.
	jour proposed ensi stategy.
1. Discuss the role of internal and external influences on buyer behavior	Develop a comprehensive consumer profile for the primary and secondary target markets for your product in the U.S. Using the DDB Life Style Study, gather information on the groups and explain their behavior in comparison to others in the study. Address the internal and external influences, i.e., why they will or will not purchase the product; and how their behavior affects the marketing strategy (product, price,
 Explain how consumer behavior affects marketing strategy, i.e., advertising, pricing, personal selling, distribution, product development. Compile and analyze profiles for target market/s using demographic 	
and lifestyle databases.	promotion, distribution).
 Write an advertising plan with storyboard, media plan, budget and creative samples for various types of media. Conduct research on the U.S. advertising environment. 	Research and write an advertising plan to include a storyboard, media plan (for TV, radio, print and digital), budget and samples of creative work for promoting your product to the U.S. market. Plans should demonstrate that sales, revenue and market share will increase over time.
 Demonstrate an understanding of the steps in the sales process applying questioning and objection handling techniques. Develop supplementary sales materials. Make a sales call presentation using questioning and objection handling techniques. 	Working in 2-person teams and assuming the role of salespeople, students will prepare and present a B2B sales call presentation. Supplementary materials must be gathered and developed for the sales call, i.e., the telephone script, introductory letter, sample sales scripts with questions and objections, sales agreements and a pitchbook which may be electronic. Professional dress required.
	 diversity and ethical strategic decision making issues. 1. Discuss the role of internal and external influences on buyer behavior. 2. Explain how consumer behavior affects marketing strategy, i.e., advertising, pricing, personal selling, distribution, product development. 3. Compile and analyze profiles for target market/s using demographic and lifestyle databases. 1. Write an advertising plan with storyboard, media plan, budget and creative samples for various types of media. 2. Conduct research on the U.S. advertising environment. 1. Demonstrate an understanding of the steps in the sales process applying questioning and objection handling techniques. 2. Develop supplementary sales materials. 3. Make a sales call presentation using questioning and objection handling techniques.

Challenges, Concerns and Solutions

Like any new innovation in teaching, there are challenges and concerns. However, it only takes a little effort to find viable solutions for each. A MMC challenge is in developing a comprehensive case, and meaningful and challenging course projects that incorporate the learning objectives from each course. Faculty may need assistance in both areas. An excellent example is a case study that was developed by DePaul University's Center for Sales Leadership (and being used by other sales programs) to teach CRM technology. Although developed to teach the CRM course, it could also be used to teach Marketing Research, Consumer Behavior, and Sales Management (and with a little creativity Advertising, International Marketing and Retail Management). Another MMC challenge is in coordinating class projects across multiple sections of a course. Given AACSB's requirement of a "common syllabi", this should not be a major issue. Although using the same case, faculty will not have to sacrifice their "academic freedom" relative to course requirements. They are still at liberty to develop their own class projects (understanding the value of these projects to enhance student learning). However, MMC will probably work best in smaller programs which will require less coordination among faculty. Its true value is for those first generation and underrepresented groups who may not have exposure to and/or a grasp of the marketing profession as a whole.

A major concern, as with all course requirements, is in getting students in each course to "do the work". For example, if students do not get a good grasp of the concepts in a prior course, they will be handicapped in future marketing courses. As a solution, it is critical that courses be seen as a "collective" and that the importance of their connectivity is thoroughly and continuously discussed in each course. A second concern is that more than one marketing course is taken during a given semester, and/or that students do not take marketing courses in any particular sequence. For this innovation to work best, International Marketing should be the first course in the sequence. Preferably, Consumer Behavior, Advertising and Personal Selling would follow (in this order). However, with a little creativity, MMC can still work regardless of the sequence by modifying the projects. Lastly, there may be students in a latter marketing course who have not taken a prior course. An excellent and simple solution is to have students who were in the prior course give an overview of that course and their project (of course, for extra points). In addition to enlightening those students who were not in the course, it will reinforce the learning for those students who were.

ADAPTABILITY TO OTHER MARKETING COURSES

Other marketing courses can be included into the overall MMC concept by simply expanding the case study to include material relevant to those courses, and developing appropriate class projects. For example, the same product selected for International Marketing can be used for an assignment to write a retail management plan for the Retail Management course or a channel management/logistics plan for the Marketing Channels course. Rather than require a separate project, Marketing Policies and Strategies could analyze projects from the prior marketing courses. The challenge for faculty is in developing creative and interesting class project that will facilitate integrated learning.

REFERENCES

Anselmi, K. & Frankel, R. (2004). Modular Experiential Learning for Business-to-Business Marketing Courses. *Journal of Education for Business*. 79 (3), 169-175.

Association to Advance Collegiate Schools of Business International. (2013). Eligibility procedures and accreditation standards for business accreditation [Electronic version]. Retrieved May 20, 2013, from http://aacsb.edu/accreditation/business/standards/2013/

Athavale, M., Davis, R. & Myring, M. (2008). The Integrated Business Curriculum: An Examination of Perceptions and Practices. *Journal of Education for Business*. May/June, 295-301.

Bobbitt, L. M., Inks, S.A., Kemp, K.J., & Mayo, D.T. (2000). Integrating marketing courses to enhance team-based experiential learning. *Journal of Marketing Education*, 22(1), 15-24.

Buttermore, J. A. (2011). The team-taught cross-functional core: Insights from a long-term undergraduate program. *Journal of Education for Business*, *86*, 240-247. doi: 10.1080/08832323.2010.498843

Clarke, B. G. (2007). Introducing Students to Professional Practice in Civil Engineering. *Journal of Professional Issues in Engineering Education & Practice*. 133 (2) 107-115.

Helle, L., Tynjala, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education – theory, practice and rubber sling shots. *Higher Education*. 51:287-314. doi: 10.1007/s10734-004-6386-5

Luescher, A. & Sinn, J. W. (2003). Portfolios: Conceptual Foundations and Functional Implications. *Journal of Technology Studies*. 29(2).

Marshall, L. L. (2007). Measuring Assurance of Learning at the Degree Program and Academic Major Levels. *Journal of Education for Business*, 83(2), 101-109.

Martell, K. (2007). Assessing student learning: Are business schools making the grade? *Journal of Education for Business*, 82(4), 189-195.

Pringle, C., & Michel, M. (2007). Assessment Practices in AACSB Accredited BusinessSchools. *Journal of Education for Business*, 82, 202–211.

Savage, R., N., Chen, D. C. & Vanasupa, L. (2007). Integrating Project-based Learning throughout the Undergraduate Engineering Curriculum. *Journal of STEM Education: Innovations & Research.* 8 (3/4), 15-27.

Weldy, T. G., & Turnipseed, D.L. (2010). Assessing and improving learning in business schools: Direct and indirect measures of learning. *Journal of Education for Business*, 85(5), 268-273. doi: 10.1080/08832320903449535

SERVICE LEARNING: REAL WORLD EXPERIENCE IN A CLASSROOM SETTING

Alicen Flosi, PhD., Lamar University Rebecca Boone, PhD, Lamar University Jeff Dyson, Lamar University Darrell Brown, Lamar University Rachelle Kaufman, Lamar University Bethany White, Lamar University

ABSTRACT

As a means for providing college students with real-world experience, students in a Business Communications course volunteered to assist a local not-for-profit in developing their business. As Mary Prentice and Gail Robinson discuss in their article "Improving Student Learning Outcomes with Service Learning" (2010, American Association of Community Colleges), these projects allow students to apply the knowledge learned in subject area courses to skills needed in the real world. The strength of such projects lies in doing things, carrying out plans and experimenting with new experiences. (Joan, 2005)

The project provided experience working in teams, researching topics related to their field, and presenting ideas to a client. A not-for-profit group, Get Fresh Beaumont, desired to find opportunities to provide fresh fruits and vegetables to low-income areas of Beaumont. Since the group was still in the planning stages, they needed help with a variety of items. Students were divided into teams. Since the Business Communications course had majors from several disciplines, students were able to work in a team in which they had an interest. For example, MIS majors developed a website for the organization, the Location and Business Plan team developed a formal business plan for the organization, and the Financial Team developed a budget. Students who work together to achieve a mutual objective tend to mentor and encourage each other, which promotes higher learning (Rusth & Revere, 2004).

In addition, the project provided students a way to 'give back' to the community and become involved in a worthwhile endeavor. This paper, which is written by three of the students, the course instructor, the Get Fresh Beaumont founder, and an instructor with experience as a business owner, reviews the project including the origination, steps taken for communicating within teams and with the client, the deliverables, and a look at the success of the project and areas for improvement.

INTRODUCTION

Ronald (2005) found that teams of students who have been exposed to real-world experiences learn more quickly and are able to produce deliverables in less time than is normally the case with a typical curriculum. As their first assignment, students in a Business Communications course were instructed to search online to see what skills and qualifications they would need to land their dream

jobs. The curriculum already included many of the identified skills, but they realized that most employers look for students with internships or experience in their chosen field. Seeking to find an opportunity for students to gain some real-world experience as part of the Business Communications course, the instructor reached out to the Dean of the College. Fortunately, he had just received a request for students to help establish a new not-for-profit project. The collaboration between the instructor and the director of the non-profit resulted in a Service Learning, Real-World Experience.

SLOW FOOD BEAUMONT

The project involved the non-profit, Slow Food Beaumont. The mission of this group is to promote good, fresh, and fair food. More specifically, this group wanted to operate a mobile produce market to provide access to fresh fruits and vegetables in low-income areas within Beaumont. They envisioned a truck fully stocked with produce, which could operate in several locations on a weekly basis.

The organization needed help with the details involved with starting a new business. They also needed a business plan based on solid financials, ideas for marketing and fund raising, and information on regulations and safety.

DIVIDE AND CONQUER

The instructor divided the class into six teams: Fundraising, Financials, Location and Business Plan, MIS, Marketing, and Suppliers and Safety. Students were allowed to select their teams, which, for the most part, matched up with their major field of study. One of the students was designated Project Manager. She gathered email addresses to coordinate communication and set up cloud storage so that information could be shared with the entire class. The following picture shows the organization of the cloud storage. Each team had a folder; others, such as a folder for logo ideas, were added later.

Cloud Storage Index for The Slow Foods Project

Name	Date modified
🛃 Financials	2/19/2014 7:37 AM
Undraising	1/23/2014 11:12 AM
湯 Location and Business Plan	2/12/2014 7:32 AM
J Logos	2/12/2014 7:32 AM
Unarketing	1/23/2014 11:13 AM
J MIS	1/23/2014 11:23 AM
😹 Suppliers and Safety	1/30/2014 2:35 PM
🔄 Slow Foods Master	2/4/2014 1:05 PM

One of the members of the Location and Business Plan team developed a logo for the project. After double checking for copyrights and existing companies with similar names, she presented approximately 10 logo/name options. Instructed by the director to develop something "sexy," she interpreted this to mean "catchy." Accordingly, she worked on finding "something that catches the

eye and stimulates curiosity...a name that makes a passer-by do a double take." She presented two possibilities: "Get Fresh" and "Local Love." The name "Local Love," on its own, sounded too much like a dating site. The name "Get Fresh," on its own, sounded too ambiguous. The goal was to stimulate curiosity - not breed gross misconceptions about the company. As a result, she decided to combine the two and add a description to the logo. Ultimately, she and the class decided on "Get Fresh Beaumont" as the name, and used "Show some local love." as the tagline. The director and the board of Slow Food Beaumont approved it. Incidentally, the process of logo development served as a catalyst for the student's launch of her own logo design business.



SAFETY FIRST

Teams began work on the "Get Fresh Beaumont" project. The financials group put together a detailed budget that included up-front costs and yearly costs. They also found a truck that could be used if funds allowed. At the same time, the Supplier and Safety group members researched basic guidelines for food preparation and safety skills, which allowed the organization to stay focused on selling fresh produce. They also found the food and safety rules for the handling of produce to reduce the risk of contamination. Another concern of the group was the safety of its employees that were going to work the truck, as well as the consumers who were purchasing the produce. Using various sources found on the Internet and local libraries, the students spent many hours researching safety rules. The group also interviewed the director to learn her vision for Get Fresh Beaumont. In addition, they researched other fresh produce food trucks across the US who had a similar vision. After presenting information about the regulation of dairy products and eggs, it was decided that basic produce should be sold for the time being and other items could be added later depending on the success of the food produce truck.

The students then researched the permits necessary for selling produce. Only a basic food preparation permit would be needed to sell the goods. In addition to safety handling food, the truck would need to have a sink installed to prepare produce for sale. Unsold food would need to be properly stored for the next location or point of sale. Produce would also need to be inspected periodically to reduce spoilage. Spoiled food would need to be properly disposed of. The recommended option for disposal involved composting. Compost boxes could be established at

sites outside of the produce storage (if stored at a specific location) or options explored with local farmers who have already established composts on their farmland.

The group continued by looking into local avenues for fresh produce that could be donated or sold to the organization at a reasonable price. They looked to Lamar University as part of their research. One of the students discovered that Lamar owned a local garden that grew fresh produce that was used in the University dining hall. They contacted the director of the garden project to see if produce could be donated. Other research was done by the organization's founders to obtain grants to help pay for local produce that was not donated. Negotiations with local farmers for produce purchased by grants would be necessary in order to keep costs low. Another possibility was to sell seasonal production. Seasonable produce offered the most affordable opportunity for consumers and most beneficial opportunity for farmers.

The Suppliers and Safety team contributed to various aspects of research with other groups. Members of this group had connections with various insurance companies and one of the group members had a connection with an employee of the Supplemental Nutrition Assistance Program (SNAP). These connections allowed them to help other groups such as Financials to create a budget for insurance coverage, and determine the cost of obtaining a SNAP kiosk in order to service lower income families on the program.

The Suppliers and Safety team made an important contribution to the project. At the end of the semester, many of them wanted to be added to the email list for the organization to keep up to date with its progress going forward. One student reported, "We were fortunate to be a part of Get Fresh Beaumont when it was brought to us as an idea and help nurture it into something more. This has not only inspired us, but it helped us gain a real life experience that will be a part of our lives forever."

LOCATION, LOCATION, & A PLAN

Meanwhile, the team dedicated to Location and Business Plan narrowed the locations in Beaumont to a few specific areas. They created a group-specific business plan structure that allowed all groups to contribute their specialized knowledge. They also presented a comprehensive business plan. The team leader found a general not-for-profit business plan template from an online source. One team member sent the format to each team so they could develop their parts. Another team began conducting research focused on the best location for the trucks to vend. The team utilized the Slow Foods, Inc. website to get a map of food deserts within Beaumont, TX. (A food dessert is an area that does not have access to fresh produce within a two-mile radius.) Surprisingly, they found that most of Beaumont was considered a food desert - especially the impoverished areas. Confronting the reality that the project could not serve all of these areas, they developed a simple team mission statement: Provide the most food for the most people.

With the mission in mind, they continued narrowing their prospects. They needed to find accessfriendly locations. The group concluded that many potential patrons would not have their own vehicles and would likely be using public transportation. They identified public transportation sites in the food deserts that had an adjacent area/lot where the organization could park a food truck without blocking traffic, breaking rules, or being a danger to others. Research yielded the ten best locations for food distribution, each of which would require the owners' permission for use. The team then added its portion to the business plan. The student who managed the consolidation of business plan information learned a lesson in patience. Because every team was interdependent, students in the Business Communication class had to learn that doing tasks without planning and communicating the plan to the other teams was not advisable.

INFORMATION & PUBLICITY

The Management Information Systems (MIS) team was the smallest group. These students took on the task of creating a website. Due to the compressed time frame, the group decided to use the website template service Wix.com. By using a program like Wix.com, the users who took over the rest of the project would have an easier time than if they had to learn a coding language. Wix.com allowed flexibility, and gave them the availability of technical support in case something went wrong.

Launching a website on Wix.com requires an email address to verify the rights of service. To make information accessible to the entire class, the team used Google's Gmail as the source of email addresses. The MIS team set up a basic account and shared updated information in the project's Drop Box account. Once email addresses were confirmed and set, the team shifted its focus to website design.

A template service like Wix.com made creating the website much faster and easier. The MIS team browsed through numerous templates and chose a bright and vivid garden themed template. They made duplicate webpages with different layouts for each with one including a Google service that would allow the company to pin point their location on Google Maps. The webpages included all the information provided by the organization and more detailed information provided by the other teams. The MIS team also proposed the organization consider a mobile app/view service that could used for the website.

Marketing was an extension of the Management Information Systems team. Having completed their work early, they had the time to devote to marketing. They decided to engage the class by having class members generate and vote on ideas. The goal was to get everyone involved and generate a lot of fun and creative suggestions. The class voted on a pool of ideas and left it up to the organization's board of directors to choose among the finalists.

In active learning strategies, the strength lies in doing things, carrying out plans and experiencing new situations. These types of active learning projects often generate higher scores for students. (Joan. C, 2005) there are many examples of active learning in this project. For example, the Suppliers and Safety team were in charge of making sure proposed names were available to be used exclusively by the organization. The team had to select names that would create traffic and be simple yet unique enough to be searchable on the first page of Google or any other search engine. The students voted on logos, which proved to be challenging because the class liked so many of them. With the name and logo selected, the class decided to come up with T-shirt ideas. The Fundraising and Financials team partnered to present t-shirt designs to the class. They had the task of locating trusted sources that would make the t-shirts affordable. They also came up with a selling price so that the company could raise cash by means of a PayPal account linked to the website. Final color and design decisions were left to the organization's Board of Directors. The Management Information Systems (MIS) team created a social media presence. Facebook, Twitter,

Instagram, LinkedIn, and many other sites could be used to promote the program. The most important element of the service learning assignment is the "real-world" service they provide through curriculum based community activity (Kathy. M., 2006).

REAL WORLD APPLICATION

The project laid a solid foundation for growth of the mobile produce market. The students developed a name, Get Fresh Beaumont, and a logo. They provided research into desired areas for the produce market and developed a business plan. SFB integrated the student work into a grant proposal for Capital One bank, which subsequently awarded \$5,000 to SFB. Using the name, logo, graphics, and grant money gained as a result of the student effort, SFB was able to launch a pilot program in the fall of 2014. On 5 October, Get Fresh Beaumont held its first mobile produce market in a low-income area on the north side of Beaumont. The organization sold 264 pounds of produce at less than half the price found in area grocery stores.

BENEFITS OF THE PROJECT

McClam et al. (2008) found that after completing a service- learning experience, students reported that they learned more by applying classroom learning to actual experience and they felt more confident in their choice of profession. One of the main advantages of conducting the project in this course was that students were Juniors and Seniors with basic business knowledge from the core business classes that represented a diverse group of majors: Accounting, Management, Marketing, Information Systems, Finance, Economics, Entrepreneurship, and General Business. The collaboration among students from different areas of expertise resulted in a successful outcome.

The service-learning project related to a College of Business learning outcome. The outcome states that students will "Demonstrate awareness of social responsibility by experiencing service to business and the community."

Working on the project inspired the students. Many claimed that the experiment developed useful skills. One student remarked, "I had an opportunity to practice my presentation skills in front of an audience and work in a team to complete a website for a developing company." Another commented that the Slow Food project group presentations allowed the student to work on "speaking up for myself in a class setting."

Engaging students in the project yielded noteworthy insights. For example, one student indicated that the startup period created some problems, but "You can learn a lot from that, and it is important to recognize that, too." Another related to the relationship between an idea and its execution. A student stated, "I think the thing that has helped me the most in this class is the Slow Foods Project, because you don't always have to have a written out plan to start a project. It can be an idea that you have played around with in your head and you can see it form in to something with the right amount of help and work." Perhaps one student summed it up by saying, "I didn't just leave this class with book knowledge. I left this class with wisdom born only of experience... I left knowing I was partially responsible for the jumpstart of a locally owned, operated, and community-focused organization."

In addition to learning skills, many students were convinced that they had made a contribution to an important cause.

"The vision was noble in that it took nutritious foods to impoverished neighborhoods, generating better health and, therefore, longer-living citizens, which would allow them to make longer-lasting contributions to the community. You never know what brain you're feeding. You could be feeding the next Einstein or Mother Teresa. I considered it a smart business venture because she proposed purchasing food from local farmers and distributors, generating business within the community. I was extremely excited to contribute to the cause, and even more excited for the experience I knew I would be gaining."

The voices of the students reinforce research which shows that service learning helps students retain more information learned in class, achieve higher course grades, and have greater satisfaction with the course (Gray et al., 1998). It also shows that service learning increases students' awareness of their community and its needs, helps change stereotypical beliefs, and increases understanding of social and cultural diversity (Eyler & Giles, 1999).

AREAS FOR IMPROVEMENT

There were some drawbacks to the service-learning approach and some opportunities for improvement. Although students had experience working in teams, they were not equally effective team members. Some groups needed more instruction while others easily comprehended the basic idea of the plan and worked on their own. For example, even though the Fundraising Group had ideas, they presented nothing in writing at the end of the semester. Consequently, they missed several opportunities to contribute to the effort.

FUTURE PROJECTS

Although this particular not-for-profit may not need any more help from the students (other than carrying out their mission), the opportunity exists for students to help other businesses: start-ups, ongoing organizations, or those in need of revitalization. The opportunity to help students and society, while providing an enjoyable, active learning environment are many.

REFERENCES

Alix, V. (2005), Tools For Managing Student Teams, Southwestern Business Administration Journal, 5(1), 3-15

Eyler, J. S., & Giles, D. E., Jr. (1999). Where's the learning in service learning? San Francisco: Jossey-Bass.

Gray, M. J., Ondaatje, E. H., Fricker, R., (1998). Coupling service and learning in higher education: The final report of the evaluation of the learn and serve America, *Higher Education Program*. Santa Monica, CA: RAND Corporation.

Hill .J, (2005), Guidelines for developing marketing plan for Not-for-Profit organization. *Southwestern Business Administration Journal*, 5(2), 145-159

Joan. C, Finding the relationship between learning life style and course achievement of undergraduate students in selected accounting courses, *Southwestern Business Administration Journal*, 5(1), 59-89

Kathy. M (2006), Use service learning to add real-world writing experience to your course, Business Communication Quarterly, pp 192-195

McClam, T., Diambra, J. F., Burton (2008), An analysis of a service-learning project: Students expectations, concerns, and reflections. *Journal of Experiential Education*, 30(3), 236-249.

Ronald. S (2005), Teaching software project management; utilizing multiple class sections and levels, *Southwestern Business Administration Journal*, 5(2), 115-119

Rusth, D. & Revere, L. (2004). Student learning achievement improves with two-try tests and study teams. *Southwestern Business Administration Journal*, 4,66-72
TEACHING THROUGH "TRANSFORMING LEARNING" – AN INTEGRATIVE MODEL FOR BUSINESS EDUCATION

Kevin L. Glasper, Bowie State University Cam Caldwell, Bowie State University

Kurt Lewin (1951), the noted social psychologist who had a profound impact on experiential learning, often commented that the best and most practical theories are those which can be applied. Although focusing on the application of theory is widely acknowledged as a highly-valued teaching tool by those who study learning theory (Borich, 2013), the emphasis on the application of theory is not consistently incorporated by those who teach (Zepeda, 2012) or by those who engage in managing business (Pfeffer, 1998; Phelan, 2013). In this paper we present a new model of "Transforming Learning (TL)," a teaching model that incorporates key elements of cognitive, affective, conative, and applied behavioral learning, that we suggest will result in student learning that is more complete than the learning that occurs from more traditional cognitively-focused teaching methods.

After introducing the TL model as a resource for improving student learning and business education, we compare this TL model with the Theory of Reasoned Action and identify how behavioral intention and the learning process are similar. We then explain the elements which make up TL model and briefly describe the factors which make up cognitive, affective, conative, and applied learning which make up this model. We conclude by encouraging business faculty and administrators to raise the bar to improve the quality of business education by adopting a TL model which enhances business learning and the application of business concepts.

Chen (2007, pp. 1-2) argued that students who have difficulty in understanding new academic concepts "do so not because of their innate abilities or intellect, but because they are struggling with conceptual transformation." We concur with Chen and suggest that business students have difficulty in grasping business concepts that are taught in an abstract manner devoid of application in a professional or business setting. We join with those scholars who suggest that faculty in higher education can substantially improve their ability to reach their students by helping those students to conceptualize key concepts by adopting a learning approach that extends beyond a purely cognitive approach.

By providing a learning model that addresses the application of business principles as students experience the learning process, business faculty can be more effective at helping students to bridge theory and application. For today's business students the task of learning a broad variety of concepts – ranging from economics, finance, and accounting to organization management, leadership, and ethics – can be a daunting experience. The ability of students to learn, integrate, and apply diverse and complex topics can be extremely difficult when, as Chen (2007) suggested, these concepts are taught primarily as abstract principles. We argue that both the traditional and contemporary business concepts above can be taught using a TL model that helps students to incorporate their basic beliefs, values and perspectives together with the application of the business concepts being taught in each individual course.

The TL model can best be understood in context with the process of behavioral intention, the Theory of Reasoned Action (Fishbein & Ajzen, 1975). The Theory of Reasoned Action is a theory of social psychology which explains how individuals incorporate the cognitive, affective, and conative or intentional elements in identifying cause and effect and in ultimately carrying out individual actions and behaviors (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980). Diagram One briefly presents the elements which make up the Theory of Reasoned Action.



Diagram One: The Theory of Reasoned Action

Beliefs are one's cognitive perceptions derived from the information that an individual possesses about an object, person, or concept. Beliefs are strongly affected by attitudes, according to several scholars (Fishbein, 1963; Davenport & Prusak, 2000; Weick, 1979 & 1993) and result from the emotional responses associated with how one feels, makes sense of, or cares about and values. Intentions are one's personal desires to carry out behaviors or actions that are congruent with one's attitudes within a specific context or situation and may be articulated or unarticulated. The intention to act is often considered to be the best predictor of one's likelihood of behaving in a specific way, but individual actions may often fall short of one's intentions as individuals discover that they have misread a situation, their abilities or skills, or the resources required to accomplished a desired goal (Fishbein & Ajzen, 1975, pp. 11-18).

Relating the Theory of Reasoned Action to the TL process, we present Diagram Two which we suggest identifies the four key elements which influence the degree to which individuals learn effectively.

Aizen & Fishbein, 1980





The TL model incorporates all four areas identified in the Theory of Reasoned Action. Cognitive learning which is so essential in understanding foundation concepts integrate with one's affective learning insights and how each individual views relationships, values, and priorities. Cognitive and affective learning impact conative or intentional learning and enable the learner to identify what he or she must understand in the quest to translate knowledge into action. Applied behaviors enable learners to learn by practicing and refining the skills and abilities necessary to translate theories and concepts into action. Table One identifies five parallel relationships between the Theory of Reasoned Action and our TL model.

Parallel Factor	Application to TRA	Application to TL	Comment		
Conceptual Application	Explains behavioral intention	Clarifies the learning process	Both models describe human action in achieving desired		
			goals		
Cognitive	Rational behavior begins	Learning requires	Information and data		
Foundation	by understanding and conceptualizing key	understanding key terms, concepts, and	are interpreted as useful or not useful to		
	concepts or beliefs	definitions as a	the process of achieving intended		

]	Fable One:	Parallel	Elements	of the	Theory	of	Reasoned	Action	and	Transform	ling
Learnin	g										

		cognitive learning foundation	outcomes and is often selective
Affective Integration	Attitudes and emotion may impact how cognitive beliefs are interpreted in the sensemaking process	Affective learning incorporates what is valued and cared about and includes an understanding of self and how one learns.	Cognitive and affective elements combine in the process of interpreting the world and in making the transition to action
Intention Determination	The intention to act is based upon an interpretation of how one ought to behave and is based upon implicit moral duties	Intention may involve confirming what is true or false and may involve achieving a threshold of understanding about truth as well as gathering data to improve decisions	The calculus by which one creates intention involves inferences and assumptions about reality and the world in which one interacts in a constant learning process
Applied Behaviors	Actions and behaviors are the culmination of one's internal process of determining how one will relate to others and the world and may be different than espoused values of actors	Applied learning provides the opportunity to translate theory into actions and to develop skills or test ideas to confirm their utility	The actions and behaviors of individuals may evolve as persons confirm the value of those actions in achieving intended goals

Although the Theory of Reasoned Action and the TL model are different in their conceptual purposes and in what they describe, both help to explain cognitive, affective, conative, and applied behaviors as they impact intended goals. The four elements of the TL model are explained below.

ELEMENTS OF TRANSFORMING LEARNING

The TL model incorporates learning theories that have been articulated by a number of other scholars. Some of the learning theories are cognitive learning, affective learning, conative, and applied learning to enable business students to understand key concepts in context with their own values. Students can use those concepts and attitudes within an organizational context to understand the validity of theories in the quest to translate principles into action. Furthermore,

business students can acquire the skills and abilities necessary for the practical application of concepts within specific business boundary conditions.

McGonigal (2005) explained that effective student learning results from several required events and processes that include: 1) an activating event that exposes the limitations of a student's current knowledge/approach; 2) opportunities for the student to identify and articulate the underlying assumptions in the student's current knowledge/approach; 3) critical self-reflection as the student considers where these underlying assumptions came from, how these assumptions influenced or limited understanding; 4) a critical discourse with other students and the instructor as the group examines alternative ideas and approaches; and 5) opportunities to test and apply new perspectives (Kolb, 1984). McGonigal further articulates that once these activities occur then a student is likely to revise his or her schema of understanding and adopt a new paradigm and be successful at applying it (McGonigal, 2005, p. 5).

Our TL model incorporates each of McGonigal's five insights and contributes to the student's ability to successfully apply management concepts. Kolb is one of the premiere scholars in experiential learning that correlates with the transforming learning model. He argues that the experiential learning theory proceeds from a different set of assumptions and ideas that are not fixed and immutable elements of thought but they are formed and re-formed through experience (Kolb, 1984). The nexus between experiential and transforming learning is that they both include the understanding of the evolution of knowledge and learning through not just the use of theories and textbook information, but through one's application of theory and knowledge into their values, experiences and beliefs.

COGNITIVE LEARNING AND BLOOM'S TAXONOMY

For more than fifty years, Bloom's Taxonomy and its focus on a cognitive learning pyramid have been the foundation element of learning practice in most classrooms (Bloom, 1956). Defining key terms and explaining basic concepts is a necessary building block in the learning process, but is far from sufficient in preparing business students for the working world (Wineburg & Schneider, 2009, p. 57-58). The standard Bloom's Taxonomy model consists of the following hierarchy of learning which identifies increasingly complex levels of cognitive understanding which is a fundamental component of all student learning and a necessary but far from sufficient element in an optimal learning experience.

Knowledge: Recalling previously-learned facts, terms, basic concepts, and answers, including knowledge of terminology, categories, theories, principles, and abstractions.

Comprehension: Demonstrating an understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.

Application: Solving problems to new situations by applying acquired knowledge, facts, techniques, and rules in a different way.

Analysis: Examining information by identifying motives or causes, evaluating relationships and organizing principles, and making inferences or finding evidence to support generalizations.

Synthesis: Integrating information and elements in a new pattern to propose alternative solutions.

Evaluation: Making accurate judgments about information, the validity of ideas, or quality of work based upon a set of criteria.

Although faculty members claim that they require students to demonstrate more advanced or refined skills in Bloom's model, fewer than twenty percent of those surveyed in a 1997 study were able to give examples of what constituted critical thinking and only 8% actually could identify criteria by which they measured the quality of student thinking (Paul, Elder, & Bartell, 1997).

Element One: Defining Key Concepts, Principles, and Theories. Business concepts incorporate multiple theories and perspectives about business principles, moral duties, social and economic outcomes, freedoms, and justice. Defining these concepts requires familiarity with theories and principles about related course subject materials. As part of TL, this correct understanding of basic concepts and knowledge is foundational to their application (Bloom, 1956).

Element Two: Framing Problems, Issues, and Recommendations. Understanding the economic, social, behavioral, and moral consequences of decisions on society and on other stakeholders and formulating recommendations for improved decision making are essential to understanding the implications of business actions and are major factors that must be considered in teaching students about their responsibilities as leaders and managers (Hosmer, 2010).

Element Three: Developing Synergistic Solutions to Create Positive Outcomes for Individuals, Organizations, and Society. Covey (2011) notes that creating such solutions is dependent upon the ability to consider implementation options that may not immediately apparent. In today's highly competitive work world (Christensen & Raynor, 2003), an effective business education requires students to understand and apply concepts and to propose creative, synergistic, positive solutions which demand the application of higher level cognitive skills and is critical to. TL.

Business faculty often emphasize teaching concepts and ideas that emphasize the cognitive learning elements of Bloom's Taxonomy and a focus on requiring students to learn and repeat back content material contained within a textbook (Datar, *et al.*, 2010; Mintzberg, 2004). Chen (2007) has noted that learning concepts by rote memorization often creates conflicts within students when those concepts inherently conflict and create logical inconsistencies within students' schema of the world. Similarly, Simon (1946) identified the "problems of administration" inherent in well-accepted management theories that often conflict but that continue to be taught in many colleges and universities as "conventional wisdom" (Pfeffer, 1998, Chapter One).

Unfortunately, many business schools emphasize to their faculty that the primary goal for faculty to pursue in order to attain tenure is to focus on becoming published in top academic journals, rather than on teaching with some schools giving new faculty to spend as little time as possible with their teaching responsibilities. In addition, doctoral programs

in business rarely address teaching skills in the academic content of their courses and many schools incorrectly assume that subject experts in an academic discipline are automatically going to be good teachers (Berrett, 2012). As a result of the emphasis on publishing to achieve tenure and the lack of attention given to addressing teaching skills, many business faculty members deemphasize key elements of effective teaching but rely heavily on Bloom's Taxonomy as the primary model that they rely upon in teaching.

AFFECTIVE LEARNING AND FINK'S TAXONOMY

Attitudes and dimensions which emphasize the affective domain are integrated in Fink's Taxonomy of Significant Learning to complement the cognitive elements of Bloom's Taxonomy (Fink, 2003). We incorporate three elements from Fink's Taxonomy. The first is to increase student awareness of how they learn, second, to assist students to become more self-aware, (Fink, 2003), and lastly to enable students to develop critical attitudes about their own moral conduct (Piper, 1993, p. 119). Affective learning outcomes which make up TL enable students to acquire insights into their individual identities and values. These affective elements of student learning encourage students to reflect on the values inherent in how they make decisions, take responsibility for their own learning, and become owners and partners in their learning process (Levine, Fallahi, Nicoll-Senft, Tessier, Watson, & Wood, 2008; Fink & Fink, 2009; Piper 1993).

Fink's Taxonomy consists of six categories of learning that are "integrated and interactive rather than hierarchical" (Fink 2007, pp. 13-14). The following is a summary of the three cognitive categories of Fink's Taxonomy and its three affective categories.

Foundational Knowledge: Foundation knowledge includes the facts, principles, relationships, and theories that students must learn and remember that are associated with a subject area.

Application: Application incorporates the use of appropriate information to achieve a desired outcome. Application may include the use of this information in solving a problem, making a decision, or utilizing creative thinking for an intended purpose.

Integration: Integration is a skill required to identify the similarities, interactions, and key relationships between ideas, events, and theories, within a specific subject area and/or between related subject areas.

Human Dimension: The human dimension involves the process of learning about oneself and/or how to interact with others. It includes understanding the process of achieving self-awareness and recognizing its importance in creating relationships to achieve desired goals.

Caring: Caring involves identifying one's feelings, opinions, values, or interests in relation to a subject or person in making normative and instrumental decisions associated with choices and alternatives.

Learning How to Learn: Learning how to learn encompasses understanding and refining learning skills, including the ability to gather information, research key ideas, and continue to learn over one's lifetime.

Fink (2003) emphasized that his model incorporated cognitive elements of Bloom's model but integrated the cognitive with affective elements that are also critically important in the learning process. Fink (2003) explained that the learning process incorporated greater self-awareness, a commitment to understanding the importance of values, and the importance of continuous learning in achieving significant learning. The following are the next three elements of TL that we have adopted from Fink's Taxonomy.

Element Four: Learning How to Learn and Research. Learning how to research key ideas, to communicate what has been learned effectively, and to adopt a personal commitment to continuous learning are fundamental to Fink's model. This commitment to learning includes seeking out insights independently, rather than simply relying upon the information dispensed by an instructor within a course (Fink, 2003).

Element Five: Understanding One's Own Identity and Values. Understanding one's values and articulating a personal identity are essential to a clearly articulated personal identity that is translated into a capacity for high achievement and a sense of purpose toward others in society.

Element Six: Developing a Value-Based and Principle-Centered Philosophy of Life. This element in Fink's taxonomy emphasizes the importance of individuals creating moral meaning and coherence in one's life. Scholars have repeatedly identified the importance of developing a highly moral personal philosophy as a foundation for discovering one's moral identity and for honoring a personal moral code or conscience (Covey, 2004; Paine, 2003; Hosmer, 2011).ⁱ

These three elements of TL affirm the importance of the affective domain in student learning and reinforce the importance of business faculty delivering learning experiences that enable students to learn how to learn, reflect upon and consciously identify their values, and develop a philosophy of life that guides them in decision-making and in their relationship with others.

CONATIVE LEARNING AND TRANSFORMATIONAL LEARNING

A conative action is one that transforms thoughts and feelings into an intended course of action and conative learning centers on identifying factors that are barriers to be overcome in the quest to achieve positive change. TL emphasizes the conative application of ideas and is a learning model that integrates the cognitive with the affective to achieve personal and organizational excellence (Mezirow, 2000). Based upon what Mezirow (2000) described as "Transformational Learning," the conative element of TL emphasizes individual learning within an organizational context and encourages learners to assess previous paradigms and assumptions—modifying mental models when those models are ineffective in optimizing performance (Boyd & Myers, 1988). Mezirow explained that Transformational Learning required that individuals confirm or disconfirm what is and is not true (cf. Schein, 2010; Weick, 2009). Tello and colleagues (2013:113) noted that Transformational Learning is:

1. Self-directed and voluntary after learners have acquired the foundations skills about a particular subject area (Knowles, 1975 & 1980).

2. Problem-oriented and practical about issues that have application within a real world context (Cranton, 2006).

3. Action-oriented in enabling learners to follow a course of conduct that promotes personal growth (Mezirow, 1991).

4. Collaborative and participative in engaging participants in addressing similar or shared experiences (Cranton, 2006).

These qualities mesh with the Theory of Reasoned Action's emphasis on intentionality in action in accomplishing a needed change that builds on but goes beyond the cognitive and affective dimensions of learning and individual behavior (cf. Cranton, 2006, p. 1).

The following are the three conative elements of TL that we have adapted for the our proposed model of TL.

Element Seven: Confirming or Disconfirming whether Past Truths are Valid. The capability to examine whether previously held theories are correct and to discern their applicability within specific conditions are skills which require a willingness to think deeply and suspend assumptions about the truth. These skills are critical for both personal growth (Arbinger Institute, 2002) and business success (Pfeffer, 1998; Pfeffer & Sutton, 2007).

Element Eight: Identifying How Learning Thresholds can Create Learning Insights and Provide Clarity. The ability to test assumptions about previously believed ideas requires the achievement of a level of knowledge or a threshold view of reality that makes it possible to adopt new insights that add value. This ability is a fundamental element of personal growth and organizational innovation and meaning (Meyer, Land, & Baillie, 2010; Novak & Gowin, 1984).

Element Nine: Creating an Ethical Framework for Making Decisions and Weighing their Costs and Benefits. Achieving superior outcomes requires a decision-making model that includes evaluating the costs and benefits associated with goals that balance the creation of long-term financial success with ethical, political, and other important social considerations (Hosmer, 2010; Paine, 2002; Swanson, 1999). Individuals ultimately base their intended actions upon a foundation of implicit or explicit ethical assumptions that build upon their beliefs and attitudes.

These three elements of conative or Transformational Learning focus student learners on understanding the realities of that which can really work and be applied. Distinguishing between "conventional wisdom" which can be the cause of many organization dysfunctions (Pfeffer, 1998) and valid theory is a critical capability that business students and practitioners need to develop in

order to be effective in today's complex business world (Phelan, 2013). The ability to confirm or disconfirm what is and is not valid and to properly understand and utilize information is a struggle that business leaders have wrestled with for decades (cf. Deming, 2000).

APPLIED BEHAVIORS AND ACTIONS

Piper (1993) emphasized that the application of knowledge was the greatest value of education. Business success ultimately depends upon the behaviors and actions of individuals and organizations, and the best measure of one's ability to learn is in how they actually apply that learning, as measured by their actual actions and behaviors. The integration of cognitive beliefs, affective attitudes, and conative or transformational intentions must be translated into actual behaviors, performance, and actions for the learning process to be optimally successful for employers and other cooperative relationships (Fishbein & Ajzen, 1975 & 2009). The following are the three elements of applied or behavioral learning that are included in our TL model.

Element Ten: Learning by Doing. Applied learning incorporates key elements of skill and ability development that result from practicing and polishing applied knowledge. Learning by doing can be achieved by participating in internships, service learning, completing work simulation assignments, and other learning activities that enable learners to actually perform required behaviors that are similar or identical to those that are carried out in a real world context (Kolb, 1984).

Element Eleven: Incorporating Social Intelligence. Social intelligence is the behavioral skill of responding appropriately in complex social situations in a manner that strengthens and enhances relationships (Albrecht, 2007). Social intelligence is a key behavioral quality required in virtually every business context and requires that an individual demonstrate self-awareness, personal self-monitoring and control, empathy toward others, and the adaptive capacity to respond appropriately and effectively in dealing with others (Goleman, 2007).

Element Twelve: Demonstrating Constant Improvement. The capacity to constantly learn and improve and to translate that learning into action is a distinguishing skill of great individuals and organizations (Senge, 2006). The capacity to search for and to create new insights and innovations is an essential skill for organizations to sustain competitive advantage (Christensen & Raynor, 2003). TL creates a learning culture that empowers students to constantly search for new insights and that asks them to apply those insights in the learning process (cf. Pava, 2003; Covey, 2004).

These twelve elements that make up TL challenge students to go far beyond learning the factual and informational content of business courses, although they include those important foundation requirements. The ultimate focus of TL is to enable learners to discover new ways of enhancing their capacity to become better informed, more responsive to the needs of changing situations, and more capable of helping themselves and others to achieve their potential.

By including affective, conative, and applied behavioral learning principles, TL focuses students on understanding the behavioral, interpersonal, value-based, and ethical elements of course content

encourages students to challenge assumptions and theories, confirm or disconfirm facts empirically, and achieve a threshold of understanding that enables students to become better students and more effective scholars and practitioners, and to develop the skills and ability required to actually apply knowledge.

CONCLUSION

In his insightful book about significant learning, L. Dee Fink (2003, p. xii) explained that those who teach in higher education are willing to change their style of teaching under four conditions: 1) they become aware of ways of teaching that are significantly different than the methods that they currently use; 2) they believe that good things will happen if they change their learning approach; 3) they understand how to teach in new and different ways; and 4) their institutions recognize, encourage, and support their efforts to improve their teaching. Fink has addressed a reality-based explanation of why many faculty choose not to modify their teaching styles from traditional, cognitively-based, multiple choice exam measured teaching.

We acknowledge that the TL model described herein may require business faculty to make difficult teaching changes and may require them to think more deeply and work with greater effort to engage and assist their students to learn. Furthermore, we recognize because all students do not come from the same educational, social and economic and political backgrounds, some students will have limited experiences that they bring to the classroom and may struggle in their ability to learn and apply TL concepts as quickly as others. Despite these realities, we encourage business faculty to use this teaching model because we find its key elements to be rationally sound and more effective at enabling students to learn and apply key business concepts.

Moreover, we have found by personally applying its teaching methods that it also has profound positive benefits for students in the classroom in terms of their understanding of business concepts and principles. In preliminary efforts to apply the TL model in teaching business classes, we have seen business students' level of understanding of business concepts increase, as well as their personal self-awareness about themselves and their own values, in addition to seeing students improve their ability to apply business concepts in internships and consulting projects. Further research is needed, of course, to test the TL model in a variety of classroom and applied contexts. We encourage business faculty members to examine the importance of affective, conative, and applied features of TL in context with their own teaching style, rather than relying entirely on cognitive teaching. We suggest that faculty who seriously examine this TL model will quickly recognize the model's ability to improve the quality of business education provided to business students, the future leaders upon whom our children, grandchildren, and society will ultimately depend for business and economic success.

REFERENCES

Berrett, D., (2012). Harvard Conference Seeks to Jolt University Teaching, *The Chronicle of Higher Education*, Feb. 5, 2012 found at http://chronicle.com/article/Harvard-Seeks-to-Jolt/130683/.

Borich, G. D., (2013). Effective Teaching Methods: Research-Based Practice (8th Ed.). New York: Pearson.

Boyatzis, R. E., and McKee, A., (2005). *Resonant Leadership: Renewing Yourself and Connecting with Others through Mindfulness, Hope, and Compassion*. Boston, MA: Harvard Business School Publishing.

Burke, C. A., (2009). "Mindfulness-Based Approaches with Children and Adolescents: A Preliminary Review of Current Research in an Emergent Field." Bangor, UK: Center for Mindfulness Research and Practice Occasional Paper.

Caldwell, C. (2009). "Identity, Self-Deception, and Self-Awareness: Ethical Implications for Leaders and Organizations." *Journal of Business Ethics*, Vol. 90, Supp. 3, pp. 393-406.

Cameron, K. S., (2003). "Ethics, Virtuousness, and Constant Change" in N. M Tichy and A. R. McGill (Eds.) *The Ethical Challenge: How to Lead with Unyielding Integrity*. San Francisco, CA: Jossey-Bass, pp. 186-194.

Chen, J. C. (2007). "Application of Transformative Learning Theory in Engineering Education." *1*st *International Conference on Research in Engineering Education*, Honolulu, HI, June 22-24, 2007, pp. 1-6.

Christensen, C. M., and Raynor, M. E., (2003). *The Innovator's Solution: Creating and Sustaining Successful Growth*. Boston, MA: Harvard Business School Press.

Covey, S. R., (2004). The 8th Habit: From Effectiveness to Greatness. New York: Free Press.

Covey, S. R., (2011). The 3rd Alternative: Solving Life's Most Difficult Problems. New York: Free Press.

Datar, S. M., Garvin, D. A., and Cullen, P. G., (2010). *Rethinking the MBA: Business Education at the Crossroads*. Boston, MA: Harvard Business School Publishing.

Fink. L. D., (2003). *Creating Significant Learning Experiences: An Integrated Approach for Designing College Courses*. San Francisco, CA: Jossey-Bass.

Fink, L. D. (2007). "The Power of Course Design to Increase Student Engagement and Learning." *Peer Review*, Vol. 9, Iss. 1, pp. 13-17.

Fink, A. K., and Fink, L. D., (2009). "Lessons we Learn from the Voices of Experience." *New Directions for Teaching & Learning*, Vol. 119, pp. 105-113.

Fishbein, M, and Ajzen, I., (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Indianapolis, IN: Addison-Wesley.

Fishbien, M., and Ajzen, I., (2009). *Predicting and Changing Behavior: The Reasoned Action Approach*. New York: Psychology Press.

Friedman, T. L., (2009). Hot, Flat, and Crowded: Why We Need a Green Revolution – and How it Can Renew America, Release 2.0. New York: Picador.

Goleman, D., (2007). *Social Intelligence: The New Science of Human Relationships*. New York: Bantam Publishing.

Hosmer, L. T., (2010). *The Ethics of Management: A Multidisciplinary Approach* (7th edition). New York: McGraw Hill/Irwin.

Kolb, D.A., (1984). *Experiential Learning: Experience As the Source of Learning and Development*. New Jersey: Prentice-Hall, Inc.

Levine, L. E., Fallahi, C. R., Nicoll-Senft, J. M., Tessler, J. T., Watson, C. L., and Wood, R. M., (2008). "Creating Significant Learning Experiencess across Disciplines." *College Teaching*, Vol. 56, Iss. 4, pp. 247-254.

Lowenstein, R., (2010). The End of Wall Street. New York: Penguin Press.

Lowenstein, R., (2008). While America Aged: How Pension Debts Ruined General Motors, Stopped the NYC Subways, Bankrupted San Diego, and Loom as the Next Financial Crisis. New York: Penguin Press.

McGonigal, K. **"Teaching for Transformation: From Learning Theory to Teaching Strategies**," Stanford University Center for Teaching and Learning Newsletter, Vol. 14, No. 2, 2005. (Available on the web at http://ctl.stanford.edu/Newsletter/).

Merriam, S. B., (2004). "The Role of Cognitive Development in Mezirow's Transformational Learning Theory." *Adult Education Quarterly*, Vol. 55, Iss. 1, pp. 60-68.

Mezirow, J., (Ed.). (2000). *Learning as Transformation: Critical Perspectives on a Theory in Progress*. San Francisco, CA: Jossey-Bass.

Meyer, J. H. F., Land, R., and Baillie, C., (Eds.) (2010). *Threshold Concepts and Transformational Learning*. Boston, MA: Sense Publishers.

Mintzberg, H. (2004). *Managers not MBAs: A Hard Look at the Soft Practice of Managing and Management Development*. San Francisco, CA: Berrett-Koehler.

Paine, L. S., (2002). Value Shift: Why Companies Must Merge Social and Financial Imperatives to Achieve Superior Performance. New York: McGraw-Hill.

Paul, R., Elder, L., and Bartell, T., (1997). *California Teacher Preparation for Instruction in Critical Thinking: Research Findings and Policy Recommendations*. Sonoma, CA: Foundation for Critical Thinking.

Pava, M., (2003). *Leading with Meaning: Using Covenantal Leadership to Build a Better Organization*. New York: Palgrave Macmillan.

Pfeffer, J., (1998). *The Human Equation: Building Profits by Putting People First*. Boston, MA: Harvard Business School Press.

Pfeffer, J., and Sutton, R. I., (2007). "Suppose We Took Evidence-Based Management Seriously: Implications for Reading and Writing Management." *Academy of Management Learning & Education*, Vol. 6, Iss. 1, PP. 153-155.

Phelan, K., (2013). *I'm Sorry I Broke Your Company: When Management Consultants are the Problem, Not the Solution.* San Francisco, CA: Berrett-Koehler.

Piper, T. R., (1993). "Rediscovery of Purpose: The Genesis of the Leadership, Ethics, and Corporate Responsibility Initiative" in T. R. Piper, M. C. Gentile, & S. D. Parks (Eds.) *Can Ethics be Taught? Perspectives, Challenges, and Approaches at Harvard Business School*, Boston, MA: Harvard Business School Press, pp. 1-12.

Simon, H. A., (1946). "Proverbs of Administration." *Public Administration Review*, Vol. 6, No. 1, pp. 53-67.

Smart, K. L, Witt, C., and Scott, J. P. (2012). "Toward Learner-Centered Teaching: An Inductive Approach. *Business Communication Quarterly*, Vol. 75, No. 4, pp. 392-403.

Swanson, D. L., (1999). "Toward an Integrative Theory of Business and Society: A Research Strategy for Corporate Social Performance." *Academy of Management Review*, Vol. 24, Iss. 3, pp. 506-521.

Tello, G., Swanson, D., Floyd, L., and Caldwell, C. (2013). "Transformative Learning: A New Model for Business Ethics Education." *Journal of Multidisciplinary Research*, Vol. 5, No. 1, pp. 105-120.

Wineburg, S., and Schneider, J., (2009). "Was Bloom's Taxonomy Pointed in the Wrong Direction?" *Phi Delta Kappan*, Vol. 91, Iss. 4, pp. 56-61.

Zepdea, S. J., (2012). Instructional Supervision: Applying Tools and Concepts. New York: Routledge.

¹ These nine elements of TL were first developed by Tello, Swanson, Floyd, and Caldwell, (2013) as part of their model of "Transformative Learning." This paper builds upon that "Transformative Learning" model and reflects a more complete integration of the Theory of Reasoned Action into the learning process.

TOUCHING STUDENTS' LIVES IN THE AGE OF GLOBALIZATION: THE IMPORTANCE OF INTERNATIONALIZING BUSINESS EDUCATION

Toni Mulvaney, Lamar University

ABSTRACT

The leading global business school accreditation agency, the Association to Advance Collegiate Schools of Business (AACSB), has long promoted the importance of globalization. In 2011, an AACSB Task Force issued a major report on globalization and its impact on business education, which stated that globalization: i) is one of the most important drivers for change in business; ii) promises to create a major inflection point for business educatior; iii) is still in its early stages; and iv) is not being handled in a coherent fashion by business educators. It also points out that globalization and internationalization are not synonymous: globalization can be viewed as the condition whereby nations embrace foreign trade and investment, creating world markets, whereas internationalization, is a response to globalization involving awareness by business managers of its importance and, hopefully, the evolution of new attitudes and behaviors towards global trading partners. In other words, globalization is an activity, but internationalization is a mindset. This paper will discuss ways that business schools can attempt to go beyond mere teaching about globalization to truly inculcating an international mindset within our students.

INTRODUCTION

The leading global business school accreditation agency is the Association for the Advancement of Collegiate Schools of Business ("AACSB"), which for years has promoted teaching international business (or "global concerns") in the business school curriculum, even changing its name to reflect the increasing importance of the international environment.

According to a groundbreaking report on the state of business education at AACSB schools, globalization is the third major inflection point in the evolution of business education, but "business schools are not responding to globalization in a coherent way" (Task Force, 2011, p. 4). The Report makes it clear that it is important to differentiate between the terms globalization and internationalization. Globalization refers to the situation where nations open themselves to foreign trade and investment, creating world markets for goods, services, and capital (Steiner, 2012, p. 32), while internationalization is considered to be a response to globalization. Citing the work of P.W. Beamish, the Report referred to internationalization as "the evolving awareness and acknowledgement . . . of the impact of non-domestic forces on [the] economic future and the translation of the latter into new attitudes and behavior regarding the establishment and conduct of transactions with those in, and from other countries" (Task Force, 2011, p. 7). Globalization is a mindset.

DIVERSITY, GLOBAL LEARNING, AND HIGH-IMPACT EDUCATION

One of the hottest topics in higher education today is "high impact educational practices." In his book, "High-Impact Educational Practices", George Kuh outlines a number of educational experiences that are conducive to high-impact learning, including:

- 1. Common intellectual experiences (such as general education requirements or a core curriculum);
- 2. Learning communities;
- 3. Writing-intensive courses;
- 4. Collaborative assignments and projects;
- 5. Undergraduate research;
- 6. Diversity and global learning in courses or programs that examine ''difficult differences'';
- 7. Service- or community-based learning;
- 8. Internships; and
- 9. Capstone courses and projects (Kuh, 2008) (emphasis added).

According to the American Association of University Professors (AAUP), who published Dr. Kuh's article: "Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies-which may address U.S. diversity, world cultures, or both-often explore 'difficult differences' such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by learning experiential community abroad" in the and/or by study (at https://www.aacu.org/leap/hip.cfm).

No university seems to have taken this advice to heart more than Texas A & M. Its Office of the Provost and Executive Vice President for Academic Affairs maintains a Web page titled, "High Impact Learning," which states

High-impact pedagogical practices are those which deepen learning and foster student engagement. Rather than simply listening to a lecture, learning by rote, and taking an exam, students actively pose and solve problems, work collaboratively in a community of peers, experience real-world applications of knowledge, and reflect on their learning processes. High-impact pedagogy has been shown to go beyond grade point averages or even degree attainment in increasing undergraduate student success. High-impact pedagogy benefits all students. Texas A&M University is committed to providing high-impact learning experiences to all students at all levels, across the whole curriculum.

(http://us.tamu.edu/Faculty-Administrators/High-Impact-Learning):

HIGH IMPACT EDUCATION AND INTERNATIONAL BUSINESS EDUCATION

In its report under the sub-heading "Quality of the learning experience for students" the AACSB Task Force states the following:

Unfortunately, present efforts by business schools to globalize typically include a series of independent and fragmented activities. These activities are mostly focused on student and/or faculty diversity and the establishment of cross-border partnerships for student exchange. The Task Force is concerned that business schools are not responding to globalization in a coherent way, i.e., they tend to focus on collecting an array of activities (e.g., exchange programs) with insufficient emphasis on learning experiences and intended outcomes. Accreditors of academic institutions should set standards of excellence consistent with this new world. By these standards, business schools hold one another accountable for practices and policies that best serve their constituents. Expectations for the incorporation of global perspectives into the curriculum, for the intellectual capital of faculty to keep pace with the evolution of business practices in a global business environment, and for schools to ensure consistent quality across all programs and locations can provide a framework for this quality assurance, yet the methods through which schools meet these expectations are likely to evolve substantially in the years to come.

ETHNOCENTRISM AND LANGUAGE PROBLEMS

One large potential hurdle standing in the way of an international mindset is ethnocentrism – the mistaken belief that the whole world is just like here, wherever here is - something of which Americans are often accused, especially in light of our reluctance to learn other languages (Cavaliere, 2014). It is not unusual for people in much of the world to be familiar with several languages, but it is rare in the U.S. According to U.S. Secretary of Education Arne Duncan only 18% of Americans claim to speak a language in addition to English, while 53% of Europeans can speak at least two languages. Surveys show that Deans of AACSB-accredited business schools believe that learning additional languages is a good idea, but few go so far as to push for inclusion of a foreign language requirement in the business curriculum. According to the AACSB Task Force, however: "foreign language requirements seem to be the exception rather than the rule among business programs, particularly those offered in North America" (Task Force, 2011, p. 149). Retired super-investor Jim Rogers uprooted his family, moving from New York City to Singapore, in part because his daughters could grow up there speaking Mandarin fluently. The bottom line, to stake a claim to be an internationalist, it would seem to be wise to be able to speak an additional language or languages.

HIGH AND LOW CONTEXT CULTURAL DIFFERENCES

In BEYOND CULTURE (Doubleday, 1976) author Edward T. Hall offers insight about cultural differences - between what he refers to as high-context and low-context cultures. A high-context culture, according to Hall is one where "people are deeply involved with each other", or, in other words, where relationships are elevated over words or contracts; low-context cultures, on the other

hand, are labeled "highly individualized, somewhat alienated, fragmented," where "there is relatively little involvement with people" (Hall, 1976, p. 39). No country is totally one way or the other, contextualizing being more of a continuum, but, America, according to Hall, while not the most low-context country, ranks down in the lower end of the scale. The implications for American business people, and their legal representatives, are important.

Hall's discussion of context is particularly hard on the legal profession:

In the United States, our ideal is that we have a government of laws, not men, and many Americans generally approve this view. Others, as a result of firsthand experience with the law, have a different idea and see American law as not only discriminatory but cold, impersonal, and unjust. American lawyers I have known see the law as something that is set apart from real life; that is, somehow more perfect . . . Lawyers , in their own eyes, are endowed with unique ways of thinking not privy to ordinary men. . . . The culture underlies the law . . . Like many aspects of our culture, the law is so designed as to operate apart from the rest of life. The common inadmissibility of contexting testimony, including hearsay, sets our courts apart and frequently makes them harsh, inhuman, and impersonal. . . How many times has the reader heard, "Answer the question, Yes or No." Such statements reveal the U.S. courts as the epitome of low-context systems (Hall, 1976, pp. 106-107).

TOUCHING STUDENTS' LIVES WITH HIGH-IMPACT INTERACTION

The following topics have been shown in our classrooms to generate considerable thoughtful conversation. They can be the focus of classroom discussion, Blackboard discussion assignments, or written assignments.

1. <u>Is There Validity to the Dominance Model?</u>

In their popular textbook Business, Government, and Society, John Steiner and George Steiner posit four models or prisms for viewing the relationship between business, government, and the rest of society, namely: the market capitalism model, the countervailing forces model, the stakeholder model, and the dominance model. While the first three models are viewed as legitimate corporate board room perspectives, the fourth is not; it represents primarily the view of business critics. According to the Steiners: "Those who subscribe to the model believe that corporations and a powerful elite control a system that enriches a few at the expense of the many. Such a system is undemocratic. In democratic theory, governments and leaders represent interests expressed by the people, who are sovereign" (Steiner, 2012, p. 13).

2. <u>Ethics of Multinational Corporations:</u>

In an essay titled "The Multinational Corporation and the Nation-State" Professor Arthur S. Miller argued that multinational enterprises (MNEs) are the one truly supranational organizations that have been created and that they have profound impacts on the political order (Miller, 1973).

3. <u>The Multinational Corporation: Anationalism versus Economic Patriotism</u>

Beginning business students often have preconceived notions about business. A mind-expanding international business related lesson deals with exploring whether American companies should be expected to be patriotic and concerned about the welfare of U.S. citizens. According to one older Business and Society text: "[S]ome multinationals aspire to anationalism, which, in the words of former Dow Chemical Company board chairman Carl A. Gerstacker: may be the major hope in the world today for economic cooperation among the peoples, for prosperity among the nations, for peace in our world. The truly anational corporation is possibly only if it can be divorced from its mother country and thus no longer is a part of one culture or one nation" (Sturdivant, 1985, p. 209).

One of the biggest hot button issues dividing Washington, D.C. and Wall Street is the so-called "inverse merger" whereby U.S. corporations buy control of foreign corporations and then merge into them, and, when the smoke clears, they are incorporated in the foreign nation. The purpose of it is to avoid the U.S. corporate tax laws that tax all of a U.S. corporation's earnings, no matter where earned (subject to a credit for foreign tax paid). According to a letter from Treasury Secretary Lew to the Chairman of the Senate Finance Committee dated July 15, 2014, Congress should enact legislation preventing corporations from renouncing their citizenship to avoid paying taxes, and calling for a new sense of economic patriotism "where we all rise or fall together" (Lew, 2014).

4. <u>Global Income Inequality and the Global Poverty Tax</u>

Perhaps the biggest theme in President Obama's second term has been the income inequality issue. According to the Bureau of Labor Statistics:

Between 2008 and 2012, the highest income quintile accounted for more than 80 percent of the total increase in household income in the United States. The fourth income quintile also experienced a significant gain between 2008 and 2012, while the lowest, second, and third income quintiles experienced essentially no change in income (BLS, 2014).

This issue was near and dear to the President's heart even before he was President. He was a leading sponsor of The Global Poverty Act, a controversial piece of proposed legislation that aims to relieve the plight of the poorest of the poor, those people subsisting on \$1 a day or less. He carried that theme into his first inaugural speech:

To the people of poor nations, we pledge to work alongside you to make your farms flourish and let clean waters flow; to nourish starved bodies and feed hungry minds. And to those nations like ours that enjoy relative plenty, we say we can no longer afford indifference to suffering outside our borders; nor can we consume the world's resources without regard to effect. For the world has changed, and we must change with it (Cavaliere, et al, 2009).

In a speech on the issue of globalization bringing more economic equality to the world, Bill Clinton warned that Americans have to get used to doing with less:

We are rapidly becoming more and more enmeshed in an interdependent world, one with more rising economic powers and more widely dispersed political influence. Anybody who was thinking about it on the day the Berlin Wall fell realized then that America had become the world's sole economic, political, and military superpower but that it couldn't last long. If you believe that intelligence and effort are equally distributed, then you shouldn't begrudge the fact that our interdependent world is bound to give more people in other nations the chance to claim their dreams, more nations a chance to rise or to reinvent themselves and rise again. And if you really believe in freedom and free markets, you shouldn't complain about the competition but learn from it. (http://www.notable-quotes.com/c/clinton_bill_ii.html#9tXMcTAzeQH4mhv2.99)

IN SEARCH OF BEST PRACTICES TO INTERNATIONALIZE THE CURRICULUM

Universities are starting to embrace the idea of "internationalizing" not only the curriculum, but also the entire collegiate experience, to ensure all students graduate with the skills, knowledge, and attitudes necessary to live and work in a global society. In April of 2014, the University of Minnesota held its 4th Annual conference entitled "Internationalizing the Curriculum and Campus". Training sessions touch all aspects of a student's experience on campus including communicating with international students, supporting international faculty, student-faculty research collaborations, enhancing learning-abroad programs, financial aid and student services. All incoming freshmen are given an Intercultural Development Inventory (IDI) and the survey is administered again at the time of graduation. This pre-post model provides accountability for enhancing intercultural competence and an opportunity to measure success and collect data to guide appropriate strategies.

Many of the topics discussed at the conference could potentially become part of the curriculum, especially in colleges of business, such as:

- 1. Fostering Cross-Cultural Understanding;
- 2. Learning Activities for Education Globally Competent Citizens;
- 3. Cultural Entrepreneurship as Globalized Education
- 4. Cultural Competency

(http://global.umn.edu/ICC/documents/14_conference_program.pdf)

Corporate training often includes "internationalization" topics. Acknowledging that the world is become more mobile and diverse, training materials help business person to understand how culture affects each person's behavior and what is required of each person to live or work with people who have different values, work styles, and world views. These courses teach strategies for removing barriers and stereotypes and encourage workplace diversity. (www.simulationtrainingsystems.com/com) Communication skills are a large part of training— active listening to receive messages in a diverse population, effective questioning techniques, and

communicating with strength are some of the specific skills addressed. (http://corporatetrainingmaterials.com/workplace_diversity//index.asp?gclid=CKOVxbCuk8ACF QwV7AodaxQA3g).

CONCLUSION

No single paper, book, or course is likely to change one's cultural mindset. But, becoming aware of a problem is the first step in the journey. Globalization is a fact of life. It is still in its infancy. I encourage you to open yourself up to the international perspective. If the American economy continues to fall back into the pack of global economies, it may become a business necessity to think globally.

REFERENCES

AACSB, "Globalization of Management Education: Changing International Structures, Adaptive Strategies, and the Impact on Institutions." Report of the AACSB International Globalization of Management Education Task Force.

Bureau of Labor Statistics (2014). "Spotlight on Statistics: Average Annual Income Changes by Income Quintile between 2008 and 2012. Retrieved on July 21, 2014 from http://www.bls.gov/spotlight/2014/high-income-spending-economic-recovery/home.htm.

Cavaliere, Frank J. (2014). "Job Satisfaction: Becoming an 'International' Lawyer." The Practical Lawyer.

Cavaliere, Frank J., Mulvaney, Toni P., Swerdlow, Marleen S. (2009). "Global Poverty Act – A Teaching Lesson on Distributive Justice." 1 Southern Journal of Business and Ethics 125,126.

Hall, Edward T (1976). BEYOND CULTURE (Doubleday, New York).

Kuh, George D. (2008). "High-impact educational practices: What they are, who has access to them, and why they matter." AAC&U, Washington, D.C.

Lew, Jacob J. (2014). Letter to the Honorable Ron Wyden, Chairman of the Senate Finance Committee. Retrieved on July 21, 2014 from http://images.politico.com/global/2014/07/15/7-15-2014_final_wyden_letter.html.

Miller, Arthur S. (1973). "The Multinational Corporation and the Nation-State." 7 Journal of World Trade, Issue 3, pp. 267–292.

Steiner, John F. and Steiner, George A. (2012). BUSINESS GOVERNMENT, AND SOCIETY. (McGraw-Hill/Irwin, New York).

Sturdivant, Frederick D. (1985). BUSINESS AND SOCIETY: A MANAGERIAL APPROACH (Richard D. Irwin, Homewood, Illinois).

Figure 1

Name Changes by the AACSB Reflecting an Increasing Focus on Globalization

- 1916: Association of Collegiate Schools of Business
- 1925: American Association of Collegiate Schools of Business (AACSB)
- 1967: American Assembly of Collegiate Schools of Business (AACSB)
- 1997: AACSB: The International Association for Management Education
- 2001: AACSB International The Association to Advance Collegiate Schools of

Business: "Acknowledging that both business and business schools had become global enterprises, the Board of Directors decided to add International to the AACSB acronym to promote the organizations commitment to advancing excellence in business schools worldwide."

Source: AACSR FAO: Has AACSR International ever changed its name? at http://www.aacsh.edu/en/fag/

PREDICTORS OF ACADEMIC PERFORMANCE IN INTRODUCTORY ACCOUNTING COURSES AMONG STUDENTS AT AN URBAN FOUR-YEAR UNIVERSITY

Chu V. Nguyen, University of Houston - Downtown Danya M. Corkin, University of Houston – Downtown

ABSTRACT

This study utilized the Ordered Logit model to examine personal and contextual factors that may contribute to academic success in introductory accounting courses across three falls semesters among students' attending a large urban minority-serving institution with an open-enrollment policy. This study also investigated the possible impact of the academic status of faculty teaching these courses. The empirical results reveal that the following factors significantly affect students' academic success:(i) the course delivery mode; (ii) the individual instructors; (iii) whether the students are business major; and (iv) their GPA at the time they take the introductory accounting course. The empirical findings suggest that instructors of hybrid classes rely on educational technologies to deliver the course materials, department be selective in assigning instructors in the first accounting course, and colleges of business should not only use their scholarships and other incentive measures to attract high GPA transfer students, but also impose a requirement that students must have a certain minimum GPA before they can take accounting 2301 to improve their retention and graduation.

Key Words: Ordered Logit model, maximum likelihood, non-normal distribution, urban university, performance.

JEL classification codes: C14; I21; I23

INTRODUCTION

Tinto (2012, p. 1) articulated that on average, people who go to college and complete a bachelor's degree can earn over one million dollars more during their life time than do those who do not go to college. The author stressed that what matters is not simply attending college but completing a degree, especially a four-year degree. In the age of globalization where the labor market has been internationalized, perhaps the most important indicator of success and future earnings potential in a competitive job market is not only the completion of a four-year degree but also obtaining a high-ranking grade point average (GPA) upon graduation. Nationally, when it comes to annual earnings based on degree type, accounting majors command one of the highest starting salaries in the US.

While the importance of a four-year degree (particularly in certain disciplines) on employment opportunities is well understood, institutions still face many challenges when it comes to the retention and adequate academic progress of students. Noble and Sawyer (1987), Ting (2001) Pike and Saupe (2002) articulated that the academic success and retention of students, particularly during their first year, are major concerns for colleges and university stakeholders. In addition, academic success and retention are increasingly viewed and used as measures of effectiveness of

higher education. This heightened accountability to improve the academic success and retention of college students has intensified the concerns of college and university administration and faculty, especially given the challenges of serving underprepared students included in the pool of incoming freshmen (Pascarella & Terenzini, 1991; Mclaughlin, 2006). These concerns continue to elude researchers exploring student characteristics that contribute to academic success.

Large urban four-year universities with open admissions policies (including transfer admissions) are unique in their challenges compared to traditional educational institutions. First, they are most likely located in or near downtowns of large U.S. metropolitan areas and mostly enroll nontraditional and ethnically diverse students. For example, these institutions enroll students that tend to be older than traditional college age, who have additional obligations including full-time employment and dependents. Furthermore, these universities are more likely to enroll students from a multitude of ethnic backgrounds with English being their second language.

Universities with open admissions policies serve a large percentage of first generation and academically underprepared college students that research indicates are less likely to be retained. The improvement of college student retention within these institutions have been addressed through various methods such as the evaluation of student transcripts to identify if remediation is necessary and requiring students to take remedial courses if deemed necessary before they are allowed to enter the programs of their choice. A recent strategy to increase the graduation rate employed by some of these institutions is to offer automatic scholarships to transfer students based on their transfer GPA. The higher the student's GPA, the more scholarship money is awarded.

From a narrower perspective are the challenges of retaining students within the accounting discipline in colleges of business. While the research reflected in the literature concerning college student retention has led to the design and implementation of interventions that improve the performance of students, which in turn increase retention and graduation, these positive effects are not uniform across colleges and majors at a given university. In particular, the accounting discipline poses additional challenges for faculty and administrators because of the following characteristics: (i) the rigor of the subject matter, and (ii) the strict sequencing of the courses in the program. In addition, the rigor of the accounting curriculum must strictly be adhered to given that accounting programs are evaluated by the CPA passing rates of its graduates. Specifically, students' CPA passing rate is public record and it is used as one important quantitative measure to evaluate the accounting programs of the colleges of business by their stakeholders. Additionally, CPA exams have recently become more difficult, which was precipitated by the wave of corporate failures in the early 2000s; examples of which include WorldCom, Enron, and Arthur Anderson.

In terms of measuring and evaluating the effectiveness on interventions on student outcomes, there are various mathematical issues to consider. Statistically, the measures of student performance, such as their grades as well as intervention activities are truncated both from below and from above, i.e., the grades are A, B, C, D, F, or W; while interventions are in the forms of whether students participate and how often they participate in the intervention activities. The numerical values of these measures are usually discrete and truncated. This discrete and truncating phenomenon renders the conventional econometric procedures inappropriate to identify the covariates contributing to the students' performance and the effects of administrative interventions. To apply any regression model on a dependent variable with multiple truncated

value and discrete in nature, the probability density of the dependent variable must be relocated from plus and minus infinity to the range between its upper and the lower limit values.

The motivation for this investigation is that if social demographic factors, delivery modes, and academic status of faculty teaching accounting courses are identified to have significant effects on students' performance, these variables could serve as an invaluable basis for formulating policy to address these pressing issues. In light of the aforementioned, this study utilized the Ordered Logit model, which can handle the qualitative responses to identify factors contributing to students' performance.

Therefore, this paper will first briefly review the literature related to college student success, and then describe the methodology used in the current investigation. Second, data analysis and empirical results will be reported. The final section will offer concluding remarks, some strategic implications, and limitations of the investigation.

REVIEW OF LITERATURE

There is extensive research on student academic success and persistence, especially among freshmen (Tinto, 1975; 1993; Pike & Saupe, 2002; McLaughlin, 2006; Tracey & Sedlacek, 1989). Tinto (1993) conceptually argued that academic performance and persistence are impacted by student characteristics that are measured by levels of academic preparation in high school and college admission test scores. This underlying assumption may explain why the College Admission Index is based, for the most part, on cognitive measures. McLaughlin (2006) White and Sedlacek (1986), Traceyand Sedlacek (1989), Boyer Sedlacek (1988) have confirmed that cognitive variables, such as high school GPA, high school percentile rank, and college admission test scores, predict the academic success of college students.

The search for factors associated with university students' academic success by Trockel et al. (2000) stimulated keen interest and spawned a large number of empirical studies in recent decades. Cumulative grade point average is frequently used as a measure of academic success. George et al. (2008) argued that the purpose of education also extends to personal and professional achievement. Therefore, researchers conducting studies of this nature have included, in addition to GPA, subjective measures of personal success. Consequently, George et al. (2008) duplicated certain aspects of research by Trockel et al. (2000) who used GPA as their standard of success and a variety of physical and mental health criteria as predictors. Also, these authors pointed out that Trockel et al. (2000) used a mail-in survey that included self-reports of exercise, eating patterns, sleep habits, mood states, perceived stress, time-management skills, social support, and others. These researchers also asked participants to maintain a time diary of daily activities and answer a questionnaire with additional exploratory variables. Furthermore, George et al. (2008) used an expanded measure of success that includes both objective (GPA) and subjective (personal success) measures. To minimize social desirability biases and increase objectivity, they also analyzed assessments of certain questionnaire items by a friend of each participant.

Empirically, George et al. (2008) found the following seven significant predictors of GPA: (i) time-management skills; (ii) intelligence; (iii) time spent studying; (iv) waking up earlier, (v) owning a computer; (vi) less time spent in passive leisure; and (vii) healthy diet. In another study

investigating predictors of academic success, Adebayo (2008) empirically found one cognitive variable—high school GPA, and two non-cognitive measures—realistic self-appraisal and understanding and coping with racism; to be the best predictors of academic success of conditionally admitted underprepared students during their first semester. Adebayo (2008) further reported that high school GPA, which accounted for 14 percent of the variance in the first semester GPA of the cohort, was a stronger predictor of first semester GPA of conditionally admitted students. Realistic Self-Appraisal is defined as students can reflect from a realist self-appraisal system to modify their behavior. Understanding and Coping with Racism is defined as students understand their positions in the multicultural society and are capable of coping with racism.

METHODOLOGY

Among the members of the class of the logistic regression models, the Ordered Logit model is more appropriate for handling the aforementioned truncation and non-normal distribution. The general objective of the analysis is to construct a probability model that links the changes in a set or a 1xn vector of independent variables or covariates to the probability of an outcome. Following Greene (2012), this study specifies equation (1) as the basis condition to construct the Ordered Logit model, where y^* is an unobservable dependent variable relating to the vector of covariates x's as follows:

$$y^* = x'\beta + \varepsilon \tag{1}$$

What we do observe is

 $y_{i} = 0 \text{ if } y_{i}^{*} \leq 0$ $y_{i} = 1 \text{ if } 0 < y_{i}^{*} \leq \mu_{1}$ $y_{i} = 1 \text{ if } \mu_{1} < y_{i}^{*} \leq \mu_{2}$ $y_{i} = J \text{ if } \mu_{J-1} \leq y^{*}$

which is a form of censoring. The μ 's are the J-1 unknown parameters to be estimated with β

$$Pr(y_{i} = 0 | x, \beta, \mu) = \varphi(-x'\beta)$$

$$Pr(y_{i} = 1 | x, \beta, \mu) = \varphi(\mu_{1} - x'\beta) - \varphi(-x'\beta)$$

$$Pr(y_{i} = 2 | x, \beta, \mu) = \varphi(\mu_{2} - x'\beta) - \varphi(\mu_{1} - x'\beta)$$

$$\dots$$

$$Pr(y_{i} = J | x, \beta, \mu) = 1 - \varphi(\mu_{J-1} - x'\beta)$$
(3)

Finally, for all the probabilities to be positive, the $\mu's$ must satisfy the following condition:

$$0 < \mu_1 < \mu_2 < \dots < \mu_{J-1}$$

Econometrically, equation (1) specifies how a vector of factors, *x*, influences the students' performances. The log-likelihood function, denoted by $Ln(\beta, \mu)$, of this model can be expressed as:

$$Ln(\beta,\mu) = \sum_{i=1}^{I} \sum_{j=0}^{J} \log[\Pr(y_i = j \mid x_i, \beta, \mu)].\zeta(y_i = j)$$
(4)

where $\zeta(y_i = j)$ is an indication function which takes the value of 1 if the argument is true, and 0 if the argument is false. This model can be used to estimate the coefficient vector β of the covariates or independent variables *x* and the threshold values of μ 's. The Ordered Logit model is the standard approach to modeling a dependent variable that displays a large cluster of limit values and under a variety of assumptions about the latent error distribution; therefore, it is appropriate model to describe the influences of the demographic and other characteristics of students on their qualitative earning grades which range from A, B, C, D, F and W that are quantitatively indexed as well as to assess interventions to address the aforementioned challenges posed by the accounting discipline to the colleges of business.

Additionally, partially differentiating the system of equations (4), with respect to the covariate vector x, yields the system of partial derivatives (5). The system of equations (5) describes the marginal impacts of the covariates or the regressors x on the probabilities y and hence y^* .

$$\frac{\partial \Pr(y_i = 0 \mid x, \beta, \mu)}{\partial x} = -\varphi(x'\beta)\beta$$

$$\frac{\partial \Pr(y_i = 1 \mid x, \beta, \mu)}{\partial x} = [\varphi(-x'\beta) - \varphi(\mu_1 - x'\beta)]\beta$$

$$\frac{\partial \Pr(y_i = 2 \mid x, \beta, \mu)}{\partial x} = [\varphi(\mu_1 - x'\beta) - \varphi(\mu_2 - x'\beta)]\beta$$

$$\frac{\partial \Pr(y_i = 3 \mid x, \beta, \mu)}{\partial x} = [\varphi(\mu_2 - x'\beta) - \varphi(\mu_3 - x'\beta)]\beta$$

$$\dots$$

$$\frac{\partial \Pr(y_i = J \mid x, \beta, \mu)}{\partial x} = \varphi(\mu_{J-1} - x'\beta)\beta$$
(5)

Mathematically, the system of equations (5) indicates that the partial or the marginal effects of the regressors, x, i.e., the effect of changing an arbitrary element x_k of the vector x, ceteris paribus, on the probabilities are not equal to the coefficients. As diagrammatically illustrated by Green (2012), an increase in any arbitrary element x_k of covariate vector x, ceteris paribus, is equivalent to shifting the distribution slightly to the right within the range of the probability density function (pdf) of y. The effect of the shift is unambiguously to shift some density mass out of the leftmost cell of under the graph of the pdf.

Additionally, if the estimated corresponding coefficient of x_k , β_k — an element of the vector β , is positive, the $\Pr(y_i = 0 | x, \beta, \mu)$ must decline. To this end, Green (2012) pointed out that the first expression in the system of equations (5) indicates that the derivatives of $\Pr(y_i = 0 | x, \beta, \mu)$ has the opposite sign of β_k . By a similar logic, the last expression of the system of equations (5) shows that $\Pr(y_i = J | x, \beta, \mu)$ must have the same sign as β . More specifically, if β_k is positive, the marginal effect of the element x_k must shift some density mass into the rightmost cell under the graph of the pdf of y. However, analyses of the remainder of the equations of the system of equations (5) reveal that the marginal effect of the arbitrary element x_k of the covariate vector x on any other cell in the middle is ambiguous, i.e., only the signs of the changes in $\Pr(y_i = 0 | x, \beta, \mu)$ and $\Pr(y_i = J | x, \beta, \mu)$ are unambiguous. The marginal effect on any other cell in the two densities.

The upshot of the aforementioned, in general, is that it is unclear how the coefficients in the Ordered Logit model should be interpreted. However, if the objective of the empirical investigation is to determine the impacts of certain covariates on the probabilities y and hence y^* ; then, their corresponding estimated coefficients (the elements of β), their signs and the characteristics of the objective is to investigate the possible differences in students' performances between the face-to-face and hybrid courses, the hybrid and face-to-face courses are numerically indexed as 0's and 1's respectively, and the estimated coefficient of this covariate is positive and significant; then, it is logical to suggest that there are differences in students' performances between the two delivery modes and students in face-to-face seem to perform better, ceteris paribus.

DATA EMPIRICAL RESULTS

This study uses the fall semester of 2011 to 2013 cohorts of accounting 2301 (introduction to accounting) students' data collected by a large urban university serving the minority and Hispanic student body with the encrypted students' identifications. The database structure with many data fields of this data set is designed and maintained by the Banner system that this particular university uses for students' record and information management.

One of the most challenging obstacles for this type of study is the availability of data related to the prior performance of transfer students. The unavailability of such data may be due to its protected nature and the inconsistencies in transfer course articulation. The data set used in this analysis is challenging in various respects because not only does it include missing values for each student, but it also has missing values across variables that differ by students. For the sample of 846 students used in this analysis, only the following common characteristics were available: student grades (A, B, C, D, F, and W); course delivery modes (hybrid or face-to face); academic status of instructors (adjunct, lecturers, tenured /tenure track); age; ethnicity; gender; major (declared business majors were coded as "1"); earned credit hours at current university; GPA at current university at onset of accounting 2301 enrollment; transfer credit hours; transfer GPA; student type (transfer or first-time in college (FTIC); students' highest score in College Algebra (MATH 1301); and the number of times the students took College Algebra.

As to indexing the ordered qualitative covariates, students' grades which are quantitatively indexed such as A, B, C and all other grades are 3, 2, 1 and 0, respectively. These quantitative values are used as the dependent variable of the Ordered Logit model. As to the covariates, the two delivery modes: hybrid and face-to-face were indexed to 0 and 1, respectively. The students' ethnicities were indexed to numerical values from 1 to 6 and then these values were used to create variables for representing each ethnic group with "white non-Hispanic" acting as the reference group. The declared business major has the value of 1, if a student declared one of the business disciplines as his or her major, and the value of 0 was designated for all other majors. Seven instructors taught these accounting courses over the sample period and their academic status ranged from adjunct to tenured professors. Each instructor in each category is randomly assigned a numerical value of 1; the next adjunct instructor would be assigned the value of 2. Consequently, the dummy variable in this sample has the numerical values ranging from 1 to 7. The grades for College Algebra assume the values of 4, 3, 2, 1, and 0; corresponding to the alphabetical grades of A, B, C, D, and F.

The estimation results of the Ordered Logit model using the aforementioned data set are summarized in Table 1. Overall, the empirical results reveal the goodness of fit as evidenced by the log likelihood ratio statistic, Akaike information criterion (aic), and Schwarz information criterion (sic).

Covariate	Est. coefficient	Std. Error	z-statistic	Pr. > $ z $		
Delivery mode	1.043391	0.258134	4.042055	0.0001		
Academic status of instru	ictor	-0.184890	0.054627	-3.384625	0.0007	
Age		-0.006094	0.017304	-0.352168	0.7247	
Ethnicity		-0.134372	0.092426	-1.453826	0.1460	
Gender		0.035346	0.194986	0.181273	0.8562	
Business major	0.582506	0.268245	2.171545	<mark>0.0299</mark>		
Total credit hours earned	0.003549	0.005131	0.691727	0.4891		
GPA when taking accour	0.931906	0.138794	6.714322	<mark>0.0000</mark>		
Total transferred credit	-0.001387	0.003671	-0.377785	0.7056		
Transferred GPA	0.059532	0.109980	0.541298	0.5883		
Highest score on math 13	0.305111	0.241067	1.265668	0.2056		
Times the student takes math 1301		-0.025847	0.073411	-0.352083	0.7248	
	μ_1	1.644368	0.715766	2.297352	0.0216	
Estimates of μ 's	μ_2	2.854336	0.722225	3.952142	0.0001	
	μ_3	4.244001	0.738197	5.749144	0.0000	
Akaike information criterion				2.3636		
Statistics	Schwarz in	formation criterion		2.5097		
	Log likelih	bod		-473.0744		
	Log likelih	ood ratio statistic	133.5768			
	Prob. (Log	likelihood ratio sta	0.0000			

Table 1

Note: z-statistic tests for the significance of the corresponding estimated coefficient. Pr. > |z| is the *p*-value.

A closer examination of the empirical results reveal that, based on the z-statistics and their p-values, the estimated coefficients for the course delivery mode, the individual instructor, business major declaration, and GPA at the onset of Accounting 2301 emerged as statistically significant.

CONCLUDING REMARKS, STRATEGIC IMPLICATIONS AND LIMITATIONS

There is no question that higher education pays off. The underlying assumption of this articulation is that one must successfully complete a degree. Tinto (2012) articulated that on average people who go to college and complete a bachelor's degree can earn over one million dollars more during their life time than do those who do not go to college. Clearly, to succeed academically, students must pass every course they attempt. To this end, the empirical results of this investigation indicate that the instructor status, course delivery mode, business major declaration, and GPAs at the onset of Accounting 2301 enrollment affect their grades from the course.

By and large, accounting majors command the highest average starting salary among the business majors. Accounting 2301 is the first course in the course sequence of their degree. Successful completion of the first course in the discipline is a necessary condition for obtaining an accounting degree. Additionally, retention and graduation are two integral metrics assessing the effectiveness of large urban four-year universities.

The empirical results suggest that the following measures should be considered to improve the academic success of accounting majors. Further investigation is necessary to understand why students taking a hybrid course were less likely to succeed in their introductory accounting course. Accounting classes require working exercise problems; therefore, if a class is a hybrid, the educational technologies could be used to deliver the course contents. This approach depends on the skills and the willingness of the professor to use technologies. In addition, professor rank also appears to impact students' success in accounting major. Student' success in this course would also likely help increase the enrollment of the accounting program. Thus, departments may consider being more strategic in the assignment of instructors to accounting 2301 classes.

Consistent with previous research, students' GPAs at the time they take accounting 2301 affect their grades in this course. This empirical finding lends credence to the articulation that previous GPA is a very accurate predictor of students' performances. Therefore, colleges and universities, with large proportion of transfer students, should not only use their scholarships and other incentive measures to attract high GPA students but also impose a requirement that students must have a certain minimum GPA before they can take accounting 2301 to improve their retention and graduation.

Whether students are business majors also contributes to their success in accounting 2301. However, given the above finding that students' GPA at the time they take accounting 2301 affects their grades in this course, this finding should not be surprising, given that colleges of business generally have higher admission requirements than other colleges. Furthermore, it is possible that major declaration acts as a proxy for student motivation.

As always, there are limitations to all empirical investigations due to the unavailability of pertinent data and this study is no exception. Possibly, for nontraditional student population, their socialeconomic statuses such as income, work hours, marital status, family size, and motivation are additional variables that could affect their performances at school. Intervention measures to help students with their course work such as tutoring services, courses such as freshmen and transfer seminars designed to familiarize new students with the university culture and good study habits would also impact grades. Unfortunately, due to the lack of collection of this pertinent data, these factors could not be incorporated in this investigation.

REFERENCES

Adebayo, R. (2008) "Cognitive and Non-Cognitive Factors Affecting the Academic Performance", *Journal of College Admission* (Summer 2008), pp. 15-21.

Greene, W. H. (2012) <u>Econometric Analysis</u>, 7th edition, Pearson-Prentice-Hall George D., Dixon S., Stansal, E., Gelb, S.L., and Pheri, T. (2008) "Time Diary and Questionnaire Assessment of Factors Associated With Academic and Personal Success among University Undergraduates" *Journal of American College Health*, Vol. 56(6), pp. 706-715.

McLaughlin, G. (2006) Factors related to persistence of freshmen, freshman transfers, and non-freshman transfer students. *AIR Professional File*, Vol. 99, 1-9.

Noble, J. and Sawyer, R. (1987) Predicting Grades in Specific College Freshman Courses from ACT Test Scores and Self-Reported High School Grades, ACT Research Report Series 87-20. Iowa City, IA: American College Testing Program.

Pascarella, E. T. and Terenzini, P. (1991) *How College Affects Students*, Jossey-Bas, San Francisco.

Pike, G.R. and Saupe, J.L. (2002) "Does High School Matter? An analysis of three methods of predicting first-year grades", Research *in Higher Education*, Vol. 43, pp. 187-207.

Ting, S. (2001) "Predicting academic success of first-year engineering students from standardized test scores and psychosocial variables", *International Journal of Engineering Education*, Vol. 17, pp. 75-80.

Tinto, V. (2012) Completing College, Chicago: The University of Chicago Press.

_____ (1993) *Leaving College*, Chicago: The University of Chicago Press.

(1975) "Dropout from higher education: A theoretical synthesis of recent research" Review *of Educational Research, Vol.* 45 (1), pp. 89-125.

Tracey, T. J., and Sedlacek, W. E. (1989) Factor structure of the non-cognitive questionnaire- revised across samples of black and white college students. *Educational and Psychological Measurement*, Vol. 49, pp. 637-648.

Trockel MT, Barnes MD, and Egget EL. (2000) "Health-related variables and academic performance among first year college students: implications for sleep and other behaviors" *J. Am. College Health*, Vol. 49, pp. 125–132.

White, T.J, and Sedlacek, W.E. (1986) No cognitive predictors: Grades and retention of specially admitted students, *Journal of College Admission, Vol.* 3, pp. 20-23.

THE CHALLENGE OF TEACHING LARGE CLASSES

Marina Sebastijanovic, University of Houston

ABSTRACT:

The main goal of any instructor is to create an effective learning environment. This goal is not easy to achieve, especially when the instructor is faced with a large class. In such classes, students often feel anonymous while instructors feel overwhelmed. Some of the problems identified in teaching large classes by Maryellen Gleason (1986) almost 30 years ago still remain the same: large space, feeling of isolation among students, group size, "sage on the stage" effect and a theater-like setting. However, we have come a long way as educators and have started adopting both technology and non-technology related strategies to deal with these issues. The main goal of this paper is to identify the challenges involved in teaching large classes and to suggest some strategies to overcome those challenges.

INTRODUCTION

Although most faculty would agree that teaching a large class is a challenging task and most students report lower satisfactions with such classes, environmental conditions that gave rise to large classes in universities are not expected to change. According to Calderon and Mathies (2013), the number of students enrolled in higher education is forecast to increase from 99.4 million in 2000 to 414, 2 million in 2030, an increase of 314%. Although such large classes offer many benefits such as decreased costs as well as standardization of learning material and experiences, increasing class sizes has a deleterious effect on educational outcomes for students and instructors (Cuseo, 2004). Some of the common reported problems are low student engagement, irregular class attendance, minimal interaction between students and the instructor and lower course ratings.

As MacGregor () points out, large class settings have historically been centered on lectures where students are not required to engage but rather memorize terms and regurgitate concepts in order to demonstrate their level of learning. Because of the strong focus on lectures, students demonstrate limited thinking skills and find learning challenging and dissatisfying (Bligh, 2002). Furthermore, these classes are usually introductory in nature, found early on in students' coursework and they often have a significant impact in developing a certain culture of learning. Students are likely to form perceptions about what college education is all about during these classes and carry them throughout their academic career. If all that is required from a class is to passively acquire information, students might expect similar standards in the rest of their coursework and even resist instructor's attempts to increase student involvement (Maringe and Sing, 2014).

Since learning is a dynamic social process, both the instructor and students need to be responsible for the learning process. Indeed, students tend to report higher levels of satisfaction with the class and achieve better outcomes (Long and Coldren, 2006) in classes in which they, along with other members of the class, take an active role in learning. As Smith et al. (2005) point out, meaningful intellectual engagement is a central mission of college experience, so if this trend of passive learning continues, we are setting ourselves up for failing our mission.

APPLYING ACTIVE LEARNING STRATEGIES IN LARGE CLASSES

Effective instruction is considered to consist of three elements: a) knowledge of the material taught (content) b) knowledge of how to present the material (method) and c) the ability to create an interpersonal context (Vygotsky, 1962). While the content requirement is similar regardless of class size, the method and the context requirements are quite different depending on class size. We cannot ignore the fact that the context of a large class is different from that of a smaller class. A large class usually ranges from 100 to 500 students placed in auditoriums with stadium type seating. There is a stage in front of the class with a podium as the central point of the room. Such setting is not ideal when trying to create an interactive environment and transfer the focus to students. Furthermore, such physical layout of the classroom suggests a hierarchy in which the instructor has the main role while students are an audience simply required to listen. This is a major obstacle to large classes because if students do not have an opportunity to actively engage, they feel anonymous and disconnected from the class (Toepell, Cole and Lathrop, 2002).

We need to find ways to turn these contextual challenges into opportunities by developing teaching methods which improve the quality of teaching and learning outcomes. There is agreement that active learning is the desired method, however it is hard to develop feasible active learning exercises that will capture the attention and interest of students in the context of large classes. In addition, there is a certain level of (justified) fear among faculty that active learning will completely eliminate the structure of traditional lectures and create chaos. We can still maintain control of the classroom with small adaptations to our lectures that shift from instructor centered to student centered learning environment. I will discuss some available tools for incorporating active learning into large classes including clickers, social media (Twitter) and coordinated study groups.

Clickers

Student response devices or clickers are becoming popular in classrooms, mainly because of their easy application. Clickers allow the instructor to tabulate and graph individual student responses in real time. The data can be collected anonymously or with identifiers, and it can be stored for any necessary corrections/modification. Implementing clickers does not require a major restructuring of the lecture. One or several clicker questions can be placed throughout the existing lecture in order to shift some of the focus from the instructor to the student. Clicker questions can be designed to fulfill several different purposes. Questions can test students' understanding of preassigned material, after which the instructor can engage in more complex active learning tasks. Clicker questions can also allow students to express their opinion on any subject. For instance, a poll about a current event or reactions to a short video can be anonymously reported by all students, giving even the shyest students a vote. Results can then be presented to the class and differences/similarities in responses can serve as a source of discussion. Also, clicker questions can be used to test general understanding of a particular topic covered in class. This approach will allow the instructor to modify the pace and focus of future lectures and it also gives the class an opportunity to discuss common alternate conceptions and misinterpretation of covered material. For instance, if in a multiple choice question a large majority of students selects an answer that is incorrect, both the instructor and students can benefit from communicating the reasons why the answer was selected by such a large group and why that answer it is not correct.

Given that the average listener's attention span is 10-20 minutes (Bonwell and Eison, 1991) clicker questions are a very useful tool that can be used to break up the monotony of a lecture. Indeed, research to date shows that students report that clickers help them understand lectures and keep them engaged with the subject (Velasco and Cavdar, 2013).

SOCIAL MEDIA

Although one approach to managing technology in the classroom is to require students to "shut down and engage", there are constructive ways to use social media and keep students engaged. Twitter can be used to increase the two way communication in a large class. This approach, just like use of clickers, does not require a major change in the structure of the existing lecture, it only requires that the instructor creates a Twitter account for the class. Students would sign up as followers for that account and would be able to comment and ask questions both during and outside of class. All discussions would be visible to every student in the class, so it would eliminate some of the duplication in communication that often occurs in classes with a large number of students. Students will be able to post comments, ask questions and analyze other students' comments.

Another problem with large classes is that students are often hesitant to speak up. Stones (1970) conducted a survey of 1000 college students and found that 60% of them avoided asking questions because of the presence of a large number of people in class. With Twitter use, instructors can ensure that every student gets an opportunity to ask a questions, which may lead to a more active discussion. Teaching assistants can monitor the Twitter news feed during class and report students' comments to the instructor where he/she can address them in real time. Cooperative learning groups

Large classes can be divided into groups as small as 3 or as large as 30 students who would meet throughout the semester and work on various problems. These break-out groups could be supervised by an instructional assistant or students could self-manage their meetings. If using the latter approach, groups can be kept on target by assigning various team roles such as the attendance keeper, recorder, devil's advocate, etc. Groups could choose the topics and questions discussed during their meetings or they can be set by the instructor. The product of cooperative learning groups does not have to be a paper or a presentation that needs to be graded. Students can use their break-out sessions to clarify and engage more deeply with concepts covered in lectures, to discuss assignments, and to improve the overall social climate through increased number of interactions with their peers.

There are several variations to cooperative learning groups that have been tested and proven effective such as the peer-instruction model (Mazur, 1997), the Teaching Team Model (Stanger-Hall, Lang, and Maas, 2010), process oriented, guided-inquiry learning (POGIL), and problem-based learning (PBL). What all these approaches carry in common is that they create course-specific learning communities. Such communities have demonstrated to promote cognitive elaboration, enhance critical thinking and problem solving skills, provide feedback, promote social and emotional development, develop an appreciation for diversity and reduce student attrition (Cooper and Robinson, 2000).

CONCLUSION

Past research clearly shows the importance of active learning in students' academic success. Given that large classes are becoming more common in colleges and universities, it is our responsibility to find effective ways to apply active learning techniques in such classes. Context does matter and same teaching methods cannot be applied across all classroom sizes. Developing new methods for teaching a particular class requires a certain time investments both in terms of designing and implementing. However, if we do not adapt our teaching styles to the new nature of our audience, we are creating a culture of passive learners, students who rely on the teacher for all learning. Both the size and the demographics of our classes are changing and as educators we are responsible for adapting our pedagogical practices in order to address those changes. We have tools at our disposal that can enable us to develop more effective learning environments. Interested readers can find more detailed descriptions of the methods mentioned in this paper and other general practices for effective teaching in a large class on the World Wide Web. Several centers for teaching and learning such as the Center for Teaching Effectiveness, University of Maryland (2004) and the Faculty Center for Teaching, University of North Carolina, Charlotte (2000) are available to the public.
REFERENCES:

Bligh, 2002. The first year of doctoring: still a survival exercise. *Medical Education*, 36: 2-3. Bonwell, C. C., and Eisen, J.A. 1991. *Creating excitement in the classroom* (ASHE-ERIC Higher Education Report No. 1). Washington, DC: George Washington University, School of Education and Human Development.

Calderon, A., and Mathies, C. 2013. Institutional research in the future: challenges within higher education and the need for excellence in professional practice. *New Directions in Institutional Research*, 2013 (157): 77-90.

Center for Teaching Effectiveness, University of Maryland. 2004. Large classes: a teaching guide. http://cte.umd.edu/library/teachingLargeClass/guide/index.html (accessed September 20, 2014).

Cooper, J. L., and P. Robinson. 2000. The argument for making large classes small. *New Directions in Teaching and Learning* 81: 5-16. Cuseo, J. 2004. The empirical case against large class size: adverse effects on the teaching, learning, and retention of first year students. *The Journal of Faculty Development*, 21(1): 5-21.

Faculty Center for Teaching, University of North Carolina, Charlotte. 2000. A survival handbook for teaching large classes. http://teaching.uncc.edu/learning-resources/articles-books/best-practice/large-classes/large-class-handbook (accessed September 20, 2014).

Gleason, M. 1986. Better communication in large courses. *College Teaching*, 34 (1): 20-24. Long, H.E. and Coldren, J.T. 2006. Interpersonal influences in large lecture-based classes: a socioinstructional perspective. *College Teaching*, 54: 237-243.

MacGregor, J., Cooper, J.L., Smith, K.A., and Robinson, P. (Eds) 2000. *Strategies for energizing large classes: From small groups to learning communities*. Sab Francisco: Jossey-Bass.

Maringe, F. and Sing, N. 2014. Teaching large classes in an increasingly internationalising higher education environment: pedagogical, quality and equity issues. *Higher Education*, 67: 761-782.

Smith, A.C., Stewart, R., Shields, P., Hayes-Klosteridis, J., Robinson, P., and Yuan, R. 2005. Introductory biology courses: a framework to support active learning in large enrollment introductory science courses. *Cell Biology Education*, 4: 143-156.

Stones, E. 1970. Students' attitudes toward the size of teaching groups. *Educational Review*.21(2): 98-108.

Toepell, A.R., Cole, N.D., and Lathrop, A.H. 2002. The high touch classroom: small group learning in large class contexts. *Academic Exchange*, 6(1): 11-15.

Velasco, M., and Cavdar, G. 2013. Teaching large classes with clickers: results from a teaching experiment in comparative politics. *The Teacher*. American Political Science Association October 2013.

Vygotsky, L.S. 1962. Thought and Language. Cambridge, MA: MIT Press.

THE ROLE OF COMPUTER SELF-EFFICACY IN MATHEMATICS ACHIEVEMENT

Sulakshana Sen, Bethune-Cookman University

ABSTRACT

The study of mathematics and statistics is important in many disciplines, including business. The research study focused on student's attitude of a historically black college towards learning mathematics using computer. The study was conducted using six instruments to measure the attitude towards using computer and its impact in their achievement. The variables such as computer-self-efficacy, perceived usefulness, perceived ease of use, subjective norms, attitude and actual use of the computer were used to account the effect towards the achievement in mathematics. The role of computer-self-efficacy was the focus on students' perceived usefulness and perceived-ease-of use to determine how their attitude affects their final exam scores. The data were collected over three different time periods during the fall semester to find the result that changed over time. Originally a total of 327 students participated in a voluntary basis; of those 278 completed their response in Time1, 241 in Time2 and 237in Time3 respectively.

The result indicated that computer-self-efficacy (beta coefficients increased from .181 to .394) had major impact on perceived usefulness with increased evidence of beta analysis. The perceived usefulness (increased from .320 to .424) is the most significant predictor of attitude. The attitude positively influenced the duration of actual usage of the computer system that accounted heavily towards student's final exam scores (beta coefficient .197).

Additional research endeavors should be devoted to the measurement of system use in different set up with different ethnic background to further analyze students' acceptance or rejection of computer used for their learning and successful outcome in mathematics course. Similar study could be conducted to measure the impact of using computers in learning statistics.

Keywords: Computer self-efficacy, Perceived usefulness, Attitude, Computer-Technology and Mathematics

INTRODUCTION & LITERATURE REVIEW

Across the US, a gap in academic achievement particularly in mathematics persists between the African American and other ethnic minority students and their white counterparts. This achievement disparity triggered a series of studies that resulted significant body of empirical research (Jencks & Phillips, 1998; Peng & Hill, 1995). A longitudinal research study involving 18 four-year institutions revealed that white students scored higher than their African American counterparts on seven standardized tests measuring critical thinking scale, knowledge of mathematics, science reasoning, reading and writing skills (Flowers & Pascarella, 2003). The National Assessment of Educational Progress (NAEP), assessed student's performance in several subjects including reading and mathematics based on the curriculum framework developed by the National Assessment Governing Board (NAGB). The NAGB develops the curricular frameworks

using standards developed within the field. The data on the achievement gap are based on the national average test-score differences between various racial and ethnic groups assessed by the NAEP. Most recent data available from NAEP indicated that performance of twelfth-graders in mathematics showed 7% black students achieved at or above the proficient level in 2013, whereas 33% white students achieved that level (NCES, 2013). The College Entrance Examination Board (CEEB) assessed the students' performance for college-bound seniors through Scholastic Assessment Test (SAT). The SAT average scores in verbal and math by the African American students also showed a gap in academic performance when compared with white and Asian Americans (CEEB, 2003). The underline cause of this academic achievement gap in African American students is not yet established, but various contributing factors have been characterized such as socioeconomic and family condition, youth culture and student behavior, schooling and practices that might influence the academic outcome of the students (Lee, 2002)

The mathematics performance gap among African American students can be narrowed if effective instruction complemented with technology could be implemented in the classroom across this nation. Meta-analytic reviews of media research have produced evidence that exhibit positive learning benefits with various media, particularly computers (Clark 1985a, b). These analyses reported an approximate 20 percent increase in final exam scores following computer-based instruction (CBI) when it is compared to traditional forms of instruction. It is not just the computer but the teaching method built into the computer that accounts for the learning gains (Kulik & Kulik, 1986).

The use of technology in the classroom has afforded educators the opportunity to explore more complex problems with their students than would otherwise possible with a paper and pencil format. The Black students' attitude towards using computer may help towards their success in mathematics. Computer Assisted Instruction (CAI) in Mathematics is definitely a supplement to regular classroom in basic mathematics and algebra to benefit the students in mathematics. If CAI is used appropriately, the gap between white/Asians and African Americans students should begin to close (Brown, 2000). The acceptance and utilization of technology to enhance academic achievement in mathematics is directly controlled by various factors that dictate whether a person would use technology effectively or not. These factors such as computer-self-efficacy, perceived usefulness, perceived ease of use and social influence play intricate role that shapes a person's attitude towards the utilization of the technology to improve performance in executing a particular task or behavioral objectives.

Bandura (1977) introduced the construct of self-efficacy that deals with the social cognitive theory of human behavior. Individuals possess the ability to exercise some measure of control over their thoughts, feelings, motivation and actions. This self regulatory function guide a person's own cognitive development and subsequent expression of that into a behavioral pattern. The self perception directly influences the performance of the person and it can alter and reshape his/her self-beliefs which in turn control the subsequent performances. In general, Bandura championed the idea of human behavior where the beliefs of people about themselves play key role in the formation and development of capabilities that will dictate their behavior.

Self-efficacy refers to the confidence of a person has on his own capabilities to execute a particular task successfully (Bandura, 1997). Students with low self-efficacy give up easily in their academic

pursuits than students who have high self-efficacy. This low self-efficacy results from student's past performances which directly influences their future successes or failures, such as grades in academic fields. Furthermore, self-efficacy influences people's decisions, goals, and their levels of effort in conducting a particular task and the length of time they would like to invest in the successful execution of the task.

The Technology Acceptance Model (TAM) was one of the most influential extensions of Ajzen and Fishbein's theory (1980) of reasoned action (TRA) and was developed by Fred Davis (1989). Davis (1989) introduced the TAM to account for the psychological factors that affect computer acceptance. The user acceptance of any technology can be predicted by the Technology Acceptance Model (TAM), and is determined by two unique factors that is perceived usefulness and perceived ease of use. Many of TRA's attitude measures were replaced with the technology acceptance measure's *ease of use*, and *usefulness*. TRA and TAM, both of which have strong behavioral elements, assumes that when someone forms an intention to act, that they will be free to act without limitation. In the real world there will be many constraints, such as limited ability, time constraints, environmental and organizational limits, or unconscious habits which will limit the freedom to act. (Bagozzi et al.1992).

Technology has no doubt become an integral part of higher education enabling students to access information rapidly and visually (Smith, 2002). It is appropriate to note how the computer algebra systems (CAS) are becoming a part of the growing technology-based curriculum for mathematics. The influences of these types of software are being investigated around the world. Several studies on the use of CAS within college mathematics curriculums, more specifically calculus courses and college algebra courses have been investigated. The first calculus study found students' attitudes and confidence were positively affected by CAS (Schrock, 1989), a second study also indicated student achievement was positively affected by CAS (Cooley, 1995), while the last study found no significant improvement in academic performance following the implementation of CAS in the calculus curriculum (Keepers, 1995). But, when CAS was used as an instructional tool, students outperformed the control group both conceptually and computationally (Tiwari, 1999). Finally, in the college algebra class studied, students using CAS were again able to outperformed the non-users.

The concept of computer self-efficacy derived from the self-efficacy idea of Bandura, and it is defined as an individual's belief in their ability to use technology in the process of solving problems, making decisions, collect and disseminate information. Compeau & Higgins (1995) described computer self-efficacy as "a judgment of one's capability to use a computer" (p.192). It has been found that self-efficacy judgments could influence a person's expectations because "the outcomes one expects derive largely from judgments as to how well one can execute the requisite behavior" (Bandura, 1978, p.241). Computer self-efficacy influenced greatly about a person's expectations toward using the computer and a person with high competence in using computer, used computer regularly, whereas, persons with low self-efficacy avoided the computer usage in his/her work (Kinzie, Delcourt, & Powers, 1994). Several studies have documented (DeBacker & Nelson, 2000; Smist, Archambault, & Owen, 1997) that female students exhibit a lower level of self-efficacy in mathematics and science courses in secondary schools than the male students. Many studies (Bandura, 1997; Chemars, Hu, & Garcia, 2001; Silver, Smith, & Greene, 2001)

observed a direct link exits between self-efficacy and overall academic achievement, as well as mathematics and science courses achievement.

Attitude is related to behavior. Individual behavior has a direct correlation with a person's attitude and difficulty to perform that given behavior (Campbell, 1963). Attitude leads to action. "Attitude controls an orderly arrangement of evaluative responses" according to Eagly & Chaiken (1993), Subjective norm (SN) deals with the idea of behavioral intention which is directly influenced by the social environment. People act on the basis of their intention and perception of control over their behavior. Intentions are influenced by the attitude towards executing the behavior (Ajzen, 1991). According to Anandarajan, Igbaria, & Anakwe (2000), the definition of Subjective Norm (SN) is two-fold: vertical pressure and horizontal pressure. Vertical pressure is referred to the social pressure from people who are subordinate to the individual (i.e., a vertical dyads relationship); horizontal pressure refers to the social pressure from people closely related to the individual (e.g., close friends). There is more likelihood for those who report high subjective norms to accept and adopt the new system (Anandarajan et al.2000; Liker & Sindi, 1997). Subjective norms include users' perception of the external forces and their motivation to comply with the forces (Robinson, 2001). From the perspective of university faculty in the context of faculty development, Wolski and Jackson (1999) also agreed to this proposition. Strong correlations have been found between attitude and subjective norm.

It is hypothesized that attitude directly influence computer usage to achieve academic success in Algebra course through computer self-efficacy, subjective norms, perceived usefulness and actual usage of computer system. Therefore, hypothesis-1 predicts that computer self-efficacy will have a positive effect on individual's perceived usefulness. Hypothesis-2 predicts that computer self-efficacy will have a positive effect on individual's attitude to use the computer. Hypothesis-3 predicts that perceived usefulness will have a positive effect on individual's attitude to use computer. Hypothesis-4 predicts that attitude will directly influence the duration of actual use of computers. Hypothesis-5 predicts that attitude will positively influence the academic achievement (final grade).

METHODOLOGY

A survey questionnaire was used to receive responses from the students. The survey was distributed to participating students who were using computers to improve their scores in a college algebra course. The following six instruments were used in data collection questionnaire. They are: usability instrument, computer-self-efficacy instrument, attitude instrument, subjective norms instrument, computer use instrument and demographic instrument. The survey questionnaire was administered to students at three different times in a fall semester.

In the beginning of the semester, a total of three hundred twenty seven students participated in the survey designed for this study. The total semester time is divided to three weeks period each (Time1, Time2, and Time3) and survey was administered three times to see the improvement of students' attitude using the computer for their benefit. Two hundred seventy eight completed the survey in Time1, two hundred forty one in Time2, and two hundred thirty seven in Time3 with their responses respectively. Confidentiality of sample participants was strictly maintained. There were five scales used to measure perceived usefulness, perceived ease of use, computer self-

efficacy, subjective norms, and attitude. The perceived usefulness scale had four items (Davis, 1989); perceived ease of use- nine items (Davis, 1989); computer-self-efficacy- eight items (Lee, 2002); subjective norms- four items (Wolski & Jackson, 1999) and attitude (Ajzen & Fishbein, 1980) had one item with a total of 26 items. The reliability of those five scales was studied. Statistical Package (SPSS) was used for analysis to find the coefficients of the pathways through multiple regressions.

RESULT

The Cronbach Alpha Coefficients of reliability analysis of the data on three different time periods is shown in Table1. The data varied from .7797 to .8584 which is satisfactory.

 Cronbach Alpha (Standardized) for Instruments and Sample size

 Time1
 Time2
 Time3

 Alpha
 .7797
 .8337
 .8584

 N
 273
 233
 226

The computer self-efficacy (CSE) positively influenced the perceived usefulness (PU) and PU directly affected the attitude during Time1 as seen in Figure1. Subjective Norm (SN) also exerted positive influence on attitude (AT).



Fig 1. Beta coefficients of variables for the period of Time1

Table 1. Internal Consistency Reliability Testing

During Time 2 period, CSE contributed immensely PU which attributed a sharp increase in attitude as depicted in Figure 2. Subjective norm also influenced the PU which contributed a steady increase in the beta coefficients.



Fig 2. Beta coefficients of variables for the period of Time2

During the Time3 period, CSE, PU, SN strongly influenced the attitude which positively affected the outcome in the final is shown in Fig 3



Fig 3. Beta coefficients of variables for Time3

From	То	Time 1	Time 2	Time 3
CSE	PU	.181**	.366**	.394**
CSE	PEOU	.214	.272	.191**
SN	PU	.238	.387	.328**
PU	AT	.320**	.531**	.424**
PEOU	AT	.099	037	.062
AT	DA	037	.159**	.197**
DA	FINAL	.045	.131	.292**

Table 2. Change of beta over time summarized in the table.

CSE: Computer Self-efficacy; DA: Duration of Actual Use of Computer; PU: Perceived Usefulness; PEOU: Perceived ease of use; AT: Attitude; SN: Subjective Norm; Final: Final exam scores at the end of semester. ** Denotes when the t-test is statistically significant ($p \le .05$).

The computer self-efficacy (CSE) had a steady increase in the beta to contribute to perceived usefulness starting from .181 (Time1) to .394 (Time3) over time suggesting that CSE best predicted students' perception of the usefulness of the software for their success in the math course. It supported the hypothesis-1. CSE influenced attitude indirectly but had a positive correlation to attitude via perceived usefulness (PU) of the system that supported hypothesis-2. The beta of subjective norms (SN) in Time1 increased consistently from .238 to .387 in Time2, but in Time3 the beta value dropped down a little. This indicated that social pressure played an important role to go to the lab and use the software to get a better grade. The PU of the system predicted the attitude where beta coefficient steadily increased from .320 (Time1) up to .424 (Time3) indicating a strong direct effect on attitude. It supported hypothesis-3. The Beta coefficients of attitude (AT) also steadily increased its contribution towards the duration of actual use from Time2 to Time3. From Time2 to Time3, AT supported the fact that more time they will spend in the computer the better result they will get in their math score. It supported the hypothesis-4 and hypothesis-5.

From the demographic report it was found that in Time1approximately72% of students preferred the instruction face-to-face instead of interacting with a computer. In Time3, the African American students' preferred face-to-face interaction with instructor increased from 72% to approximately 85%. According to some students' additional comments, mathematics gets clearer learning face-to-face from the instructor in a class.

DISCUSSIONS

The Perceived Usefulness (PU) has a greater influence on the perceived ease of use, and expressed a strong positive influence on attitude, whereas, the perceived ease of use had very little influence

on attitude. In other words, subjective norm and perceived usefulness can be considered as the strongest predictor of attitude. Our findings regarding the positive role played by Perceived Usefulness on attitude is totally opposite to the findings of Malhotra & Galleta (2005), where they observed that PU play a relatively marginal role in predicting attitude, whereas, Perceived-ease of Use was the strongest predictor of attitude. Internalization will have positive influence on user's perceived ease of use of the system, according to Malhotra & Galleta (2005), but our result indicated that PEOU has no influence on the attitude and behavioral intention to use the system. This finding strongly suggest that at least in our system, internalization by PEOU had no bearing on the influence to induce the ultimate usage of the system.

Malhotra & Galleta extended Technology Acceptance Model to include Psychological Attachment to show the social influence on technology.an (1958). Subjective norm is mainly based on continuance (cognitive) conceptualization of commitment (Meyer & Allen, 1984). Computer self-efficacy played a major role in influencing PU and AT which brings a positive effect on the duration of actual use of the computer that translate into the final outcome of the exam scores in algebra course.

CONCLUSION

Technology is the application of knowledge, tools, and skills to solve practical problems and human capabilities. According to this study computer self-efficacy is contributing a lot towards perceived usefulness and perceived usefulness is contributing to students' attitude for actual use of the computer to their benefit. The duration of using the computer is coming from their attitude towards it. To maximize the performance of students using computer towards their achievement in mathematics, these following suggestions are added towards the improvement of curriculum and instruction.

- Computer skills are most meaningful when integrated with class projects in mathematics and other subject areas. This requires collaboration on the part of all teachers in computer assisted instruction (CAI). They will require knowledge and attitudes necessary to be collaborative workers, and ethical technology users.
- There should be workshops for both pre-service and in-service teachers regarding the use of computers in subject areas needed for the level of students.
- Computer Algebra System (CAS) has powerful tools for carrying out mathematical computations, manipulations, and procedures. Most schools are quite far from implementing routine use of such tools into their mathematics curriculum, instruction, and assessment.
- Computer-aided instruction has been shown to be an effective tool for mathematics instruction. Using proper technology students enjoy learning more and make gains in math performance. Babbitt (1999), suggested tips to guide teachers and parents in selecting instructional mathematics software in which the focus should be on instructional software such as concept development, drill and practice, tutorial and simulation software rather than just spreadsheets or graphic software.
- According to Babbitt (1999), the software in which number of problems and instructional levels can be modified will serve the needs of a wide range of students in a single classroom or an individual student over a long period of time. Some students are motivated by the immediate response of the software where others became frustrated by time pressure.

Having the ability to modify the response speed is important for achievement in mathematics (Babbitt, 1999).

- From the study it was found that the computer self-efficacy was increased steadily from Time1 to Time3. The mathematics course should be designed in such a way that the students have to do individualized or group projects in the computer for special credits applied to their final exam scores. It would motivate students to use the computer frequently and intensely as they know it would help their grades. If they work with their peers in the same projects, then they would be more enthusiastic to compete with other groups.
- As the perceived ease of using the computer would directly affect their attitude, as a result the students would be motivated to increase the use of computer more often and stay longer in using the computer to succeed in mathematics.

The following are the recommendations for further research to the study:

- 1. The study should be done in other four-year college Introductory Algebra courses in order to test the validity and reliability of the research.
- 2. There should be a comparative study in respect to community college algebra students to compare the attitude of African American students using computer towards the mathematics performance.
- 3. There should be a comparative study between African American students and white students to see if the obtained result of this study would be similar or different in any respect of attitude towards the acceptance of technology.
- 4. It will be interesting to study the effects of Computer self-efficacy and attitude on the performances in Statistics and Business Calculus. As Algebra is the foundation of higher mathematics so the findings might show similar effects on the outcome of learning statistics and other quantitative subjects.

LIMITATIONS

The results may not apply to other courses that are using the computer to facilitate the instruction. A larger sample size may suggest any difference in the findings.

The availability of computers to students in the lab in their preferred time is a big negative factor in the institution. The lab hours were inconvenient for students to come and work. The lab is closed during holidays. If the students could have more access, that could have positive impact on the study. The researcher also found that the software was so designed that if the students could not solve the problem in the first three trials they had to start all over from the beginning with a new set of problems. These features of the software lead frustrations in students' mind. Also, there were not enough computers available at a time for students to use for the purpose.

From the demographic report it was found that in Time1 and Time2 approximately 72% of students preferred face-to-face instruction rather than interacting with a computer. In Time3, the African American students' preferred face-to-face interaction with instructor increased from 72% to approximately 85%. According to some students' additional comments, mathematics gets clearer learning face-to-face from the instructor in a class. This conviction might be a major barrier for using computer in learning mathematics.

REFERENCES

Ajzen, I. (1991). Theory of planned behavior. Organizational Behavior and human Decision Processes. 50, 179-211.

Anandarajan, M., Igbaria, M., & Anakwe, U. P. (2000). Technology acceptance in the banking industry: A perspective from a less developed country. Information Technology & People, 13 (4), 298-312.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice-Hall.

Babbitt, B. C. (1999). 10 tips for software selection for math instruction. Learning Disabilities OnLine. Retrieved May 12, 2003, from http:// www.ldonline.org/ld_indepth/technology/babbitt_math_tips.html

Bagozzi, R. P., Davis, F. D. & Warshaw, P. R. (1992). Development and test of a theory of technological learning and usage. Human Relations, 45 (7), 660-686.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.

Bandura, A. (1978). The self system in reciprocal determinism. American Psychologist, 33, 344-358.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York:W.H.Freeman and Company.

Brown, F. (2000). Computer assisted instruction in mathematics can improve students' test scores: A study. Chapel Hill, NC: University of North Carolina. (ERIC Document Reproduction Service No. ED443688).

Campbell, D.T. (1963). Social attitudes and other acquired behavioral dispositions. In S. Koch (Ed.), Psychology: A study of a Science. Vol.6, pp 94-172. New York, NY: McGrow Hill

CEEB 2003. College Entrance Examination Board, National Report on College-Bound Seniors, selected years 1986-87 through 2002-03. Retrieved from http://nces.ed.gov/programs/digest/d03/tables/dt131.asp.

Chemers, M.M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. Journal of Educational Psychology, 93(1), 55-64.

Clark, R. E. (1985a). Confounding in educational computing research. Journal of Educational Computing Research, 1(2), 445-460.

Clark, R. E. (1985b). The importance of treatment explication in computer-based instruction research. Journal of Educational Computing Research, 1(3), 389-394. Compeau, D.R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. MIS Quarterly, 19, 189-211.

Compeau, D.R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. MIS Quarterly, 19, 189-211.

Cooley, L.A. (1995). Evaluating the effects on conceptual understanding and achievement of enhancing an introductory calculus course with a computer algbra system (Doctoral dissertation, New York University, 1995). Dissertation Abstracts International, 56, 3869.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13* (3), 319-340.

DeBacker, T.K., & Nelson, R.M. (2000). Motivation to learn science: Differences related to gender, class type, and ability. *Journal of Educational Research*, 93(4), 245-255.

Eagly, A.H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Hartcourt Brace Jovanovich.

Flowers, L. A., & Pascarella, E. T. (2003). Cognitive effects of college: Differences between African American and Caucasian students. *Research in Higher Education*, 44(1), 21-49.

Jencks, C., & Phillips, M. (Eds.). (1998). *The black-white test score gap*. Washington, D.C: Brookings Institution.

Keepers, J. K. (1995). The effects of a CAS on the development of student understanding of the function concept in a precalculus course (Doctoral dissertation, Illinois State University, 1995). *Dissertation Abstracts* International, 56, 3871.

Kinzie, M.B., Delcourt, M.A. & Powers, S.M. (1994). Computer technologies: Attitude and self-efficacy across undergraduate disciplines. *Research in Higher Education*, *35*, 745-768.

Kulik, C.L., & Kulik, J.A. (1986). Effectiveness of computer-based education in colleges. *AEDS Journal*, 19, 81-108.

Lee, J. (2002). Racial and ethnic achievement gap trends: Reversing the progress toward equity? *Educational Researcher*, 31, 3-12.

Liker, J. K., & Sindi, A. A. (1997). User acceptance of expert system: A test of the theory of reasoned action. *Journal of Engineering and Technology Management*, 14, 147-173.

Malhotra, Y. and Galletta, D.F. (2005). A Multidimensional Commitment Model of Volitional Systems Adoption and Usage Behavior, *Journal of MIS*, Volume 22, Number 1, pp. 117-151

Meyer, J. P. & Allen, N. J. (1984). Testing the 'side-bet theory' of organizational commitment: Some methodological *coniidetMions. Journal of Applied Psychology*, 69, 372–378.

NCES (2013). Twelfth grade mathematics and reading assessment from the National Assessment of Educational Progress-The Nation's Report Card. Retrieved from: http://www.nationsreportcard.gov/reading_math_g12_2013.

Peng, S.S., & Hill, S.T. (1995). Understanding racial-ethnic differences in secondary school science and mathematics achievement. Washington, DC: U.S. Department of education.

Robinson, L., Jr. (2001). Sales force use of technology: An extention of the technology acceptance model, including antecedents and outcomes relevant in professional selling organizations. Unpublished doctoral dissertation, University of south Florida, Tampa.

Smist, J. M., Archambault, F. X., & Owen, S. V. (1997, April). Gender and ethnic differences in attitude toward science and science self-efficacy among high school students. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Schrock, C. S. (1989). Calculus and computing: An exploratory study to examine the effectiveness of using a computer algebra system to develop increased conceptual understanding in a first-semester calculus course (Doctoral dissertation, Kansas State University, 1989). *Dissertation Abstracts International, 50*, 1926.

Silver, B.B., Smith, E.V., Jr., & Greene, B. A. (2001). A study strategies self-efficacy instrument for use with community college students. *Educational and Psychological Measurement*, *61*(5), 849-865.

Smist, J. M., Archambault, F. X., & Owen, S. V. (1997, April). Gender and ethnic differences in attitude toward science and science self-efficacy among high school students. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Smith, R. (2002). Successfully incorporating Internet content and advanced presentation technology into collegiate courses: Lessons, methodology, and demonstration. Unpublished manuscript, Massachusetts Maritime Academy.

Tiwari, T. K. (1999). Integrating computer algebra systems as an instructional aid in an introductory differential calculus course (Doctoral dissertation, Mississippi State University, 1999). *Dissertation Abstracts International*, 60, 1491.

Wolski, S., & Jackson, S. (1999, February). *Technology diffusion within educational institutions: Applying the technology acceptance model*. Paper presented at the 10th Society for Information Technology & Teacher Education International Conference, SanAntonio, TX.

INNOVATIVE METHODOLOGY: CROSS-CULTURAL TEACHING APPROACH FOR US MBAS IN CHINA

Jifu Wang, Bingxin Wu, University of Houston, Victoria Xingsheng Li, University of Houston, Victoria

We have been pondering for a long time now, the issue of how to reform and innovate university teaching. We believe that, under the premise of economic globalization, how to most effectively combine management science with economic development practice and how to integrate theories concerning government management and enterprise management is the urgent task for teaching of the business administration major. If there is no change in teaching innovation in the business education arena, business administration teaching will be long shackled in the traditional teaching model, resulting in being disconnected from practice and the real business world, and gradually losing its application value and meaning of existence.

In the face of globalization and international community, two phenomena clearly manifest: emerging China and fast growing academic research. First, the economy in China is already the fastest growing and most stable in the world and the trend has lasted for more than three decades. Second, in the process of 36 years of economic and social reforms, scholars in China have gradually formed a number of new theories. One of these new theories by Mr. Bingxin Wu, entitled *New Theory of Leadership Management Science*, is the latest and most advanced leadership and management theory.

When designing the Theory and Practice of Leadership Management Program for the MBA students at the University of Houston-Victoria (UHV), we decided to walk out of the classroom, out of the campus, and out of the United States and moved the program to China. There were three partners involved in running the program: UHV Business School, CUFE School of Government and Economics, and Shandong Sanzhu Group. Shandong Sanzhu Group is a manufacturer of pharmaceutical, health, and cosmetic products, which use high tech organic fermentation techniques with 32 patents in the world. We intended to get the students from business and government together to learn from one another since these are the two sides of the same coin in the modern society. Enough has been done for artificially separating the two fields and separating each other far away from one another. Business executives and government officials need to know each other's business for the effective and efficient operations of the modern society. Apart from this, in most lectures, no matter if for business or public courses, firms are not part of the equation. However, in reality, firms are the cornerstones for the very existence of business schools and public schools. For this reason, we have two big firms participating in the program: Airtech Asia Ltd., one of the most successful US manufacturers in China, and Sanzhu Group, one of the most successful private firms in China.

The pilot program was done in China in 2013 with five UHV MBA students and 15 MPA and doctoral students from the School of Government at the Central University of Finance and Economics (CUFE) in Beijing. UHV students participating in the program in 2014 grew to 29.

We chose teaching sites very carefully for this program: Beijing, Tianjin, and Jinan. Beijing is the capital of China and the center of Chinese traditional culture. Beijing is also the political, economic, cultural, science, and technology center in China. The specific teaching site in Beijing where lectures took place was the Central University of Finance and Economics. In addition to lectures, there was also a visit to the Chinese ancient palace - Beijing Forbidden City, the imperial garden - the Summer Palace, and the ancient Great Wall in Beijing's suburbs. All of these symbolize and reflect Chinese ancient culture.

Tianjin is one of the four central government controlled municipalities with a well-developed economy. Our partner in Tianjin is Aritech Asia Ltd., which is a very successful US owned firm in China. Dr. Perwaiz, the general manager, has more than 35 years of experience working in China and has been very well liked by the Chinese government officials and business colleagues; even though he has no real competitors in producing the parts for the customers such as Boeing and Airbus.

Jinan is the provincial capital of Shandong and is also the center of Qi-Lu culture, which is the most important source of Chinese traditional culture. It is 1.5 hours' drive away from Beijing and three hours' drive away from Shanghai. Jinan is located at the center of the four most well-known ancient Chinese thinkers. Located to the south of Jinan about two hours' drive, is the former residence of Confucius, the most famous Chinese ancient thinker and educator. About 1.5 hours' drive North from Jinan is the former residence of Sun Tzu, Chinese first military strategist. To the east about 1.5 hours' drive from Jinan, is the former residence of Guan-Tzu, the greatest theorist in ancient China. To the southwest about four hours' drive from Jinan, is the former residence of Lao-Tzu, the greatest thinker in ancient China.

Students said that the selected teaching site seemed surrounded by the ancient Chinese culture, which brought a different kind of feeling.

The American Embassy paid high attention to this program. On the first day that American students entered into China, the American Embassy dispatched more than ten staff to bring students from America and China into the embassy, and warmly received all students and professors. One of the officials spent the whole morning introducing the current situation of China's economic and social development and opportunities for the United States.

The program has the following features that made it stand out from other programs of this kind.

First, the teaching method is unique.

This program is a dialogue of scholars between the east and the west and is the interface of eastern and western culture, which is the combination of Chinese management elements and American management experience and is also the integration of eastern and western wisdom. This international program has a strong academic atmosphere.

Participants included professors and experts, famous entrepreneurs and government officials, doctoral students and postgraduates in school from both China and America. Participants from US crossed the Pacific Ocean and gathered with their Chinese counterparts in Beijing and Jinan, where

knowledge collided, experiences exchanged, and learning extended, and Sino-US friendship was breed and strengthened.

Sino-US cooperation can give full play to their own strengths, which make teaching methods more valuable with both Chinese and western cultural characteristics.

The Chinese students can learn about advanced theories in the United States, and the US students can learn about Chinese history knowledge and the actual new theories developed in China.

In the past, the approach of cooperation between two countries was between business schools. Now it is triune interactions among school-school, school-government, and school-enterprise, which is the theory system learning and communication based on practical methodology.

This approach does not only enable students to obtain knowledge, but also enhances the friendship between young people of the two countries, which is of great significance for the future.

Second, the teaching structure and teaching methods of leadership management are innovative and the program content is cutting-edge and realistic.

The main teaching content consists of modern world management theory, new theory of leadership management, and Chinese ancient management theory.

The main teaching form is a combination of practical teaching and international exchange, online teaching, and classroom teaching.

1. Frontier theories about modern consumption economy and leadership management, mainly new theories about leadership and management science

In globalization, the United States and China have become more and more competitive. We need practical strategies and operation theories. More effective and efficient work has become increasingly important, not only for the government leaders, but also for enterprise leaders. In this program, through theory learning and practice, students from both countries learned Wu Bingxin's advanced leadership management theory, practical experience of China's reform and opening up, and Mr. Wu's enterprise management experiences. Therefore, the program did not only disseminate knowledge but also successful practical methodologies at a higher level of essence. The program focused on how to operate to get more benefits and competitive value in the dynamic world. Through the interactions and team work, the future leadership of Chinese and American enterprise and governments is integrated.

It should be noted that Mr. Wu is the most famous entrepreneur in China and also one of the most famous theorist. The program adopted his book entitled New Discoveries on Leadership Management as the textbook because it is the epitome of experiences that Mr. Wu has accumulated for the last five decades. He is one of the most successful entrepreneurs in the world.

Such teaching structure and teaching methods enabled doctoral students and postgraduates from UHV Business School and CUFE School of Government to combine the social relationships and

the social networks operation, which at a higher level contributes to the cultural understanding. The program also enabled these students to work better for chances of promotion in governments and enterprises in the future.

2. Chinese ancient leadership management theory.

The program covered Guan-Tzu, the most significant Chinese ancient thinker and management theorist; Confucius, the Chinese ancient educator; Lao-Tzu, the Chinese ancient philosopher; and Sun-Tzu, earliest Chinese military strategist.

3. The core content of New Theory of Leadership Management Science.

This is the theory Mr. Wu built over thirty years of careful research. The author is China's first private entrepreneur and it took more than half a century to trace China's economic development.

In order to play the role of preconception before the class began, it took nearly six months for preparation, including compiling teaching materials, the syllabus, and the enrichment version of the leadership management science theory. Students read the textbook and wrote a reading digest before the program started, which played a role of teaching outside the classroom.

Third, to interact teaching with practice and to combine classroom learning with practice, government, and society.

This collocation of teaching instructors is more scientific, consisting of senior professors from Chinese and American universities, researchers, entrepreneurs, theorists, and enterprise top executives with practical experiences.

American professors include Dr. Farhan Niroomand and Dr. Jifu Wang. The dean of UHV Business School, Dr. Niroomand, lectured on globalization and economic development. Dr. Wang lectured on western modern leadership management advanced theory with 16 assessment tools.

Dr. Jinghua Zhao, the dean of CUFE School of Government, lectured on China's traditional culture and the comparative management theory with Chinese characteristics.

Mr. Bingxin Wu, entrepreneur and theorist, taught from the perspective of the combination of theory and practice. He lectured on the consumption comprehensive theory system and economic development, the leadership management theory, the relationship between enterprises and government, and practices and operations.

Prof. Xinsheng Li, senior researcher of Shandong Academy of Social Sciences, analyzed and interpreted ideas of leadership management in Chinese ancient culture and introduced in detail leadership management ideas of Guan-Tzu, Confucius, Lao-Tzu, and Sun-Tzu.

The teaching process includes classroom lectures, field observations, culture visits, group discussions, and conference presentations.

This learning process enabled students to understand that leadership is the prerequisite to ensure the efficient operation of enterprise and government. The students also learned specific methods and working art of government and enterprise leadership management in terms of consumption awareness and consumption behaviors. They not only understood the dialectical relationship between the two, but also learned to promote consumption behaviors of people by raising their consumption awareness.

As we all know, eastern culture and western culture are different, which is related to the difference in their way of thinking in sensibility and ration, theory and practice, ethics and morality, precept and example, inspiration and comprehension, as well as demonstration and correction. In the past, China's so-called modern leadership management theory, in fact, was copied from the westernstyle leadership management theory.

Since reform and opening up of the rapid development of the Chinese economy and its huge success, westerners have to come into the oriental culture for inspiration due to the increasing development of leadership management theory and the increasing complexity of the theoretical system. Eastern cultures, especially Chinese traditional management ideas, increasingly reveal its unique value and become the new source of leadership management scientific development. The students in this international program learned and studied the dialectical thinking of the Book of Changes, universe, ground, and humans of Guanzhong, people-oriented management thinking of inaction and subjective creative governance thinking of action, Taoism and inaction for governance of Lao-Tzu, benevolent government and rule of virtue of Confucius, and the military science of Sun-Tzu. All of these embody the leadership management wisdom of the east. This study opened a new era of east-west management culture development in the interaction.

This program taught and transformed the western management theories and integrated the excellent leadership management ideas in ancient China, especially the leadership management ideas of Guan-Tzu, Confucius, and Sun-Tzu. Also for the Chinese practical experiences, we put forward employment strategy, culture strategy, public relations strategy, and other theories so as to constitute a complete theoretical system of leadership management practical strategies.

Some scholars believe that Asians especially Chinese have excellent leadership management talent, and the next big development of leadership management science will appear in eastern cultures in the next twenty years. It may well be a blessing that the American business school and its scholars are able to stand at the forefront of the times to experience the collision, integration, and interaction of Chinese and western cultures, and use the oriental wisdom to help construct modern leadership management science.

In summary, after 15 days of learning, all participants felt deeply and strongly the changes, wrote summary of the study, and talked about their learning experiences.

Students shared the view that during this trip to China to attend the international program, they received the education that they cannot receive on any campus. Some indicated that "This time we walked out of the classroom, out of the country and into the society to interact with students in another culture and swim between teaching and practice. What we learned not only broadens our horizons, but also carried out effective practice, which greatly breaks through the limits of the

classroom." Some also said, "In the past, programs are aimed at making money by charging fees, but this one is sponsored by Sanzhu Group in China, which reflects the enthusiasm about Sino-US cultural exchanges by Mr. Bingxin Wu."

Mr. Wu, the Chinese entrepreneur and theorist, has donated the capital to establish the International Education Center at the University of Houston, Victoria and offers adequate funding for all the expenditures. This will provide reliable funds for the international program in the future, which will contribute to continuously deepening our innovative educational practice, enriching theories and accumulating practical experiences that can be put into practices for generating results. Therefore, this innovative program has profound significance for both China and America.