

Reaching the Millennial Generation: Experiential Learning Approaches in Business Courses

Marilyn E. Vito, Richard Stockton College, mev@stockton.edu
Gurprit Chhatwal, Richard Stockton College, Gurprit.Chhatwal@stockton.edu
Aakash Taneja, Richard Stockton College, Aakash.Taneja@stockton.edu

ABSTRACT

The Millennial Generation, those born between 1982 and 2002, have never known a world where information was not readily available at their keyboard, or where one could not immediately contact friends and family with a few key strokes on computer or cell phone. The Millennials operate on short attention spans, demand immediate gratification, and process information in short spurts. Traditional lecture formats no longer hold their attention and instructors must integrate more interactive exercises in order to achieve satisfactory learning outcomes. This paper investigates the dynamics of the Millennial Generation and interprets them forward to the Post-Millennial Generation along with the pedagogical changes commanded by those dynamics. It further presents research exploring student satisfaction with short experiential learning approaches/assignments and examines models for their introduction in business courses with minimal use of in-class time.

INTRODUCTION

Classroom dynamics began to change dramatically by the end of the twentieth century as enhanced technologies became part of everyday life. As the first decade of the twenty-first century draws to a close we find even more evidence of a cultural change affecting the classroom as the second wave of the Millennial Generation joins the ranks of college students. Amid increasing pressures for assurance of learning outcomes, instructors face the challenge of adapting pedagogy to address both a more global economy and a new kind of student.

The Problem

Technology has irrevocably altered the accessibility of information and the socialization of young people in all but the most remote and primitive cultures. Along with nearly unfettered access to the Internet and social networks, the students now streaming through the halls of higher education have a different set of ethics, values, and expectations than their predecessors. Ultimately, classroom dynamics must integrate new cultural attributes in order to facilitate effective learning by these students (Provenzo, 2002). The pace at which the generational changes take place increases at the same exponential pace as technology changes. Today's college students are more comfortable with the new technologies and the use of social networking than their professors. Their reliance on technology for information needs puts a demand on instructors to integrate its use into coursework to facilitate successful learning outcomes.

Howe and Strauss describe seven core traits of the Millennials believed to be drivers for adapting higher education to successfully prepare the new generation of leaders. They are presented in table one below with suggested implications for planning pedagogy:

Table 1

Core Traits of Millennials	Implications for Pedagogy Planning
Special – 86% believe they have the greatest impact of any generation for the global environment of the future.	They expect to be rewarded for efforts and expect special accommodations to allow them to achieve their potential.
Sheltered – “Helicopter parenting” raised expectations of being protected. They expect a safe and stress-free environment.	Complaints of “unfair grades” abound, with increasing intrusions by parents. They will challenge every deviation from the syllabus as a violation of their written contract.
Confident – There is a collective confidence in their futures, with emphasis on safety in numbers.	There is a distinct difficulty in developing creative thinking and problem solving by individuals and few will be first to proffer a new idea.
Team Oriented – 95% believe that it is important to be trusted by peers.	Combining teamwork and technology works well, but debates or critiques of others’ work does not.
Conventional – A willingness to adhere to rules and standards to make life easier and stress free sets them apart from earlier generations who were anxious to challenge the establishment.	With so much information available on the Internet or their cell phones, they are reluctant to develop original ideas and find it difficult to synthesize their research into their own arguments.
Pressured – “trophy kids” expect planning and effort to be rewarded. They look for the easy successes rather than seeking new challenges.	Cheating is a growing problem, with increasing acceptance of imitation as the way to succeed.
Achieving – These are the smartest, best-educated students in U.S. history, with detailed plans for their futures. They expect their academic pursuits to pay big dividends in professional success with accompanying high standards of living.	Demands for higher academic standards, smaller classes and more personalized attention, highly quantified grading policies, and cutting edge technology require precision in constructing course syllabi. Changes that add to their workload are not well received.

(Howe & Strauss, 2003)

The peak birth rate of the Millennial Generation in 1990 puts the largest number of these students in their junior and senior years in the next two academic years. Moreover, the Post-Millennial Generation coming behind them clearly demonstrates the same core traits with greater intensity, increasing the challenge of keeping them engaged and satisfied with their academic experiences. Compounding the challenge of preparing these students for their roles in society is the increasingly global nature of the economy. The latest financial crisis clearly reflects this phenomenon, with the U.S. housing/mortgage and the European Union debt crises having ripple effects in economies around the world.

As the globe “shrinks” and the worldwide economy reflects the decisions of individual governments and business leaders in diverse and wide-ranging cultures, this young generation will face ever more complexities in their world. The skills needed to master the current environment and be successful leaders in the future are not new ones, but helping them to master critical thinking, problem solving, and communication skills requires new approaches given the advances in technology and their growing reliance on it (Rotherham & Willingham, 2010).

With the cultural changes brought on by the new life experiences of the Millennial Generation, instructors find they must adapt their pedagogy to include more engaging approaches that incorporate the values and skills that students bring to their classes. Traditional lecture formats and semester long case studies have little appeal to students whose attention span lasts as long as it takes to read and reply to a text message. Multitasking Millennials expect more interactive and engaging study, with less reliance on textbook absorption and more on group exercises and short cases (Lancaster & Stillman, 2002).

EXPERIENTIAL LEARNING TECHNIQUES

Overview

Experiential learning is the earliest documented teaching/learning technique and its effectiveness as a practical pedagogy is well documented in research literature, making it foremost in learning styles popular in Western culture (Breunig, 2005). Business education has generally relied on internships, case studies, and simulations to achieve desired learning outcomes. Each of these learning tools offers important experiences using critical thinking and communication skills, while introducing students to the reality of the business environment. However, these more traditional approaches often require a semester long commitment, thereby precluding other equally important learning components that must be sacrificed because of time constraints. The longer time commitment also often challenges students who are already multitasking with course overloads and extracurricular activities.

Experiential education need not be a lengthy construct in order to be an effective learning mode. Any deliberate process that engages students in meaningful direct experience facilitating greater depth of knowledge, developing critical thinking and communication skills, and ingraining crucial values can be considered experiential learning. Ideally, any experiential learning exercise will incorporate reflective analysis along with an interactive encounter with new knowledge (Breunig, 2005). Experiential learning can best be described as a continuous cycle of experience, observation and reflection, forming abstract concepts, and testing new applications. Assignments that build on prior experiences to reinforce knowledge provide maximum benefits from experiential learning exercises (Kolb & Kolb, 2005). Moreover, offering unstructured problems that depend on effective use of prior knowledge applied to new situations helps each student master problem solving skills rather than merely searching for familiar solutions. Such exercises force them to first frame the question and then identify alternative solutions with limited structure and incomplete data - an essential exercise for tomorrow's business leaders (Zlotkowski, 1996).

Sample Experiential Learning Assignments

We conducted a study of student satisfaction with short research projects based on the experiential learning modality. Classes included in the study ranged from required core courses to the capstone course, and we employed a variety of experiential exercises. One common feature employed in each variation of experiential assignments included the use of a business publication recognized as the most commonly read daily media source for business information. Each variation involved some form of reflection and analysis that required identifying the relationship of print media to material covered in the course. Students worked independently or in groups and had a specified deliverable that required a combination of oral or written communication skills.

In order to reduce bias toward a particular approach, all experiential assignments used the same business publication, while the deliverable varied according to the skill levels expected in each course. This approach was adopted to ensure the applicability of wide ranging use of short experiential learning projects in accounting courses.

In the required core course, Financial Accounting, students were responsible for presenting an article from the specified business publication for discussion in the class. Each student selected and submitted an article and provided a brief synopsis of how the article related to material covered in class. After approval of the article by the instructor, students submitted a one page discussion of the accounting principles being applied or violated in the news story. For extra credit, students were asked to incorporate appropriate reference to accounting standards and pronouncements relevant to the article's main points.

In two sections of Intermediate Accounting, considered the *gateway course* for accounting majors, students worked in groups of three or more to prepare a slide show presentation based on their collective research on a selected news article. A list of articles was provided by the professor and each group selected one article for presentation. The presentation required: (1) the salient points of the article summarized in bullet points identifying relevant transactions or events requiring some accounting treatment, (2) the authoritative literature providing guidance on the proper accounting and reporting for the transactions and/or events described in the article, copied and properly cited, and (3) a discussion and analysis linking the salient points of the article to the cited accounting literature and summarizing the implications for proper recording, reporting and full disclosure of the economic impact. The completed slide show was submitted to an online course system for grading, which considered the appropriateness of the content and the presentation style, including proper spelling, grammar, and citations.

Students in the *Upper Level Accounting Course (Auditing)* completed individual writing assignments incorporating the experiential learning research projects. Converting the assignment to an individual format permitted a greater emphasis on development of professional writing skills, with an enhanced focus on proper citation of accounting and auditing authoritative literature. For students of Auditing, the use of news media reinforces the importance of staying abreast of contemporary developments in clients' industries, while encouraging students to read news items with a discriminating eye. Similar to the assignments described above, the student paper focused on one or two salient points in a selected article relevant to planning an audit. Students researched pertinent accounting and/or auditing standards and described the implications of the facts presented in the selected article. This was followed by a discussion of

how they might need to consider those implications as an auditor engaged in auditing clients in similar situations. Papers were graded equally for content and style, with particular attention to how well students integrated their understanding of auditing standards with actual financial reporting situations.

INVESTIGATING STUDENT SATISFACTION

Overview

Having developed a variety of short form experiential education tools that we believed would satisfy the learning styles of the Millennials, we hoped to validate our assumptions by conducting a study of the drivers behind students' satisfaction with various projects. We also sought to determine the extent to which the use of these projects may lead to their satisfaction with the course itself.

Our model builds on the conceptual framework of learning effectiveness by Piccoli and colleagues (Piccoli, Ahmad, & Ives, 2001) and uses design and human factors as two drivers of students' satisfaction with the technique. The design factors in this study relate to the course content for developing higher-order thinking skills with a focus on perceived learning outcomes and perceived relevance of the techniques. Human factor relates to the students' perceptions regarding their extrinsic motivation and affective attitude towards the use of short term research projects

Measured Outcomes

Following established models for measuring students' learning satisfaction used in other studies, we constructed our study to measure perceived learning, perceived relevance, extrinsic motivation, and affective attitudes as determinants of technique satisfaction, and to measure the relationship between technique satisfaction and course satisfaction.

Perceived learning outcome

The experiential education projects in this study were all designed as a means to improve students' ability to conduct real world analysis and effectively use methods, concepts and theories to solve problems. Perceived learning was therefore measured by the following three variables: 1) improvement in topic understanding; 2) improvement in ability to conduct real world analysis; 3) improvement in using methods, concepts and theories. We believe that students who have positive perceived learning outcomes will have a positive opinion about the learning that takes place due to the use of such research projects and will tend to be satisfied with the same. Therefore,

H1: Perceived learning outcome is directly related to technique satisfaction.

Perceived relevance

All of the experiential education projects called for students to access the FASB Accounting Standards Codification (ASC), AICPA Statements on Auditing Standards, PCAOB

Auditing Standards or other authoritative sources of accounting literature in order to help them understand contemporary accounting issues. Use of these tools has practical application for accounting professionals; thus, use of these tools in course projects provides meaningful preparation for accounting careers. In particular, the use of ASC on the CPA exam beginning in January 2011 makes early practice a compelling factor for relevant learning outcomes. In addition, students' experience with research helps them to apply theory to practice. For example, students referred to auditing standards promulgated by either the AICPA Auditing Standards Board or the Public Companies Accounting Oversight Board in their analysis of auditing topics related to selected news articles. Accordingly, perceived relevance was measured by: 1) application to current news stories about real situations; 2) understanding of relevant accounting principles; 3) experience with research for application of theory to practice; and 4) understanding of contemporary accounting and auditing issues.

If students feel that there is no relevance of the exercises being assigned, they will perceive these projects to be a waste of their time, and hence be unsatisfied with these techniques. Similarly, the students with a higher level of perceived relevance of the short term research projects will report a higher level of satisfaction with the technique. Therefore,

H2: Perceived relevance is directly related to technique satisfaction.

Extrinsic motivation

Extrinsic motivation measures the perception of some tangible benefits that will be received from the activity. For students, extrinsic motivation is related to getting a higher grade in the course, getting bonus points, or being better prepared to pass certification examinations such as the Uniform CPA Exam. Accordingly, extrinsic motivation was measured by these three items: 1) part of the grading scheme; 2) bonus points; 3) better preparation for the CPA exam. The more the students perceive that the short research projects will help them receive these rewards, the more they will tend to be satisfied with the technique. Prior research has found that extrinsic motivation is an important factor contributing toward learning in the classroom. Therefore we propose,

H3: Extrinsic Motivation is directly related to technique satisfaction.

Affective attitude

Affective attitude toward the use of short research projects involving experiential learning is defined as the emotional feelings and the amount of enjoyment students get from working on these projects. For purposes of this study, affective attitude was measured by three variables: 1) desirable/undesirable; 2) enjoyable/un-enjoyable; 3) interesting/boring. If students like these projects and have a positive feeling towards them, they will tend to approve the use of this activity, reflected in their perceived level of satisfaction with the technique. Therefore,

H4: Affective attitude is directly related to technique satisfaction.

Course satisfaction

Course satisfaction is considered as the final dependent variable in this study and reflects the students' approval of learning in the course as measured by three items in the study: 1) valuable learning experience; 2) improvement in learning; 3) overall learning effectiveness. If

the students experience greater learning as a result of using assigned projects, it results in their approval, and hence the satisfaction with the course. Therefore,

H5: Technique satisfaction is directly related to course satisfaction.

Methodology

Data was collected from students in four undergraduate accounting classes that used short research projects involving experiential learning techniques integrated within the traditional course work. Academic level of these classes ranged from the entry-level Financial Accounting course required for *all business majors* to the senior level Auditing course required for only those *accounting majors planning to take the CPA exam*. Two sections of Intermediate Accounting, which is considered the *gateway course to the accounting major*, were also included in the study. Students were asked to complete an anonymous survey at the end of the semester after having engaged in experiential education research projects. We developed the survey instrument by using standard psychometric scale-development procedures and adopted validated measures based on relevant authoritative literature. Based on a scale of seven points, students responded to questions designed to elicit their response for each construct of interest in the study (a copy of the survey is available upon request). We used SmartPLS (Ringle, Wende, & Will, 2005) to conduct the analysis. Survey participation was voluntary and there was no penalty for not participating. A total of 100 students participated in the survey.

DATA ANALYSIS & RESULTS

Instrument validation

We used Partial least square (PLS), a variance (component) based structural equation modeling (SEM) technique (Haenlein & Kaplan, 2004), to statistically analyze the data. PLS is robust against normality assumptions, skewness, multicollinearity of the indicators and misspecification of the structural model (Cassel, Hackl, & Westlund, 1999) and is useful for small sample sizes (Chin & Newsted, 1999). According to Chin (1998), sample size in PLS should be at least ten times the largest number of independent variables impacting a dependent variable. With four independent variables in this study, a minimum sample size of 40 was required. The usable sample size in this study was 90 correctly completed surveys, satisfying the minimum sample size requirement.

Reliability of the scale was verified by analyzing average variances extracted (AVE), composite reliability scores, Cronbachs alpha and communality (see Table 1 in appendix). Harman's one-factor test as described by Schriesheim (1979) was performed, and we concluded that common method bias was not a concern in this study. The items in the survey instrument were also tested for convergent and discriminant validity by analyzing loadings and cross-loadings (see Table 2 in appendix), and by comparing the square root of the AVE with correlations between different constructs (see Table 3 in appendix) before running the PLS model to calculate R-square values, and the statistical significance of each path coefficient (see Table 4 and Figure 1 in appendix).

Research model validation

Hypothesis 1 predicted that perceived learning outcome would be significantly related to technique satisfaction. The results of this analysis, presented in Table 4 indicate that the beta weight for perceived learning outcome ($\beta=0.271$) was both statistically significant ($t= 2.484$) and in the expected direction, supporting the first hypothesis. It indicates that the students with high perceived learning outcomes from short experiential research projects have higher satisfaction with respect to the use of such projects in the class. The beta weight for perceived relevance ($\beta=0.257$) was found to be statistically significant ($t= 2.434$) and in the expected direction, supporting the second hypothesis. Similarly, the beta weight for both extrinsic motivation ($\beta=0.289$) and affective attitude ($\beta=0.182$) were found to be statistically significant ($t= 3.369$ and 2.009 respectively) and in the expected direction supporting the third and fourth hypothesis respectively. The relatively low value of beta weight for affective attitude as compared to other drivers suggests that the satisfaction of students with the technique is not merely because of their feelings, but it is more because of the benefits of the technique in terms of learning outcomes, relevancy and extrinsic motivation. These four drivers of satisfaction with the technique accounted for 68.6% variance in technique satisfaction.

The research model was able to explain 30.4% variance in total course satisfaction. The beta weight for technique satisfaction in relation to overall course satisfaction ($\beta=0.552$) was also found to be statistically significant ($t=6.960$) and in the expected direction, thus supporting the fifth hypothesis. The high value of this beta coefficient suggests the usefulness of these research projects in relation to the students' satisfaction with the course.

DISCUSSION

Theoretical knowledge of accounting is important for students in order to understand the underlying conceptual framework of accounting. Furthermore, study of accounting theory increases understanding of complex economic issues and their impact on financial reporting of business entities. However, theory without practical application is virtually useless in the field of accounting. Thus, the importance of providing experiential learning in the study of accounting cannot be over emphasized. Experiential education has relevance at the earliest stages of the academic program, with increasing relevance as the student nears graduation. Accelerated curricular programs, pressure for assurance of learning, and the changing dynamics introduced by the Millennial Generation all make finding new ways to integrate interactive practical application of theoretical study imperative. While this is certainly true for accounting majors, it is also true for majors in related fields as well, and can generally be extended to all fields of study associated with professional careers.

The results support the hypothesis that the students who perceive short research experiential education projects to be relevant are satisfied with the technique. Short experiential education research projects are useful as a means to immerse the student slowly into the reality of what they will face as career professionals. The study found that students enjoyed their experience of working on experiential education based research projects. Even though the students were required to put in extra efforts on these projects as compared to the traditional lecture based classes, they found the experience to be desirable.

We also found that working with Millennial and Post-Millennial Generation students, it is particularly important to develop assignments that have relevance to real world events that require students to spend time and effort understanding the events and the relevance to their chosen profession. It is also important to be able to research for authoritative guidance to deal with real world events. Assignments should be appropriate to the skill levels associated with the respective course, and instructors should provide detailed guidelines and examples for students to follow in completing their assignments. Completed assignments should be evaluated and prompt detailed feedback should be provided to students. Rewarding stellar work with opportunities to share with classmates can also develop students' positive attitude and hence the satisfaction with the assignments.

Finally, it was shown that the satisfaction with the technique was a significant factor in influencing the students' satisfaction with the course. Having a successful learning technique that can be applied with short time commitment provides rewarding outcomes for many students. In today's world, an increasing proportion of students are working to help pay their way through college, while also accelerating their degree completion by increasing course loads. Such factors create even greater time constraints for students, which makes semester long experiential exercises nearly impossible to include in the curriculum. Short experiential learning projects can achieve similar learning outcomes and result in satisfaction with the amount of learning taking place in the courses without further straining time budgets for students or faculty.

RECOMMENDATION AND CONCLUSION

The purpose of this paper was first to identify the cultural influences on the Millennial and Post-Millennial generations that must be addressed with innovative pedagogical approaches to assure desired learning outcomes. The second issue addressed in the paper is the development of learning experiences that result in satisfaction with the technique and the relevant courses for the Millennials and relate it to the transitional learning modes of Post-Millennials. It was not our intent to present our short form research projects as the exemplar models for experiential education for current or future students of business. Rather, we hope that our study encourages instructors to further explore the use of short research projects as a technique to enhance learning in their courses, by developing new tools employing the concepts outlined here. Documenting student satisfaction with the technique validates its use as a substitute approach to providing real world experience when students cannot undertake internships, engage in comprehensive simulations, or dedicate many hours to semester long case studies. Moreover, satisfaction results measured across the spectrum of student levels and using a variety of short exercises provides support for faculty to innovate with short experiential learning projects. We hope that the results of this study will contribute to a better understanding of the application of experiential learning technique and its usefulness as a pedagogy that enhances students' learning outcomes and course satisfaction. We encourage others to investigate the use of this technique in ways appropriate to their own courses, and appropriate to the skill levels of their students.

Appendix

TABLE 1: SCALE RELIABILITY

	AVE	Composite Reliability	Cronbachs Alpha	Communality
Affective Attitude	0.73	0.89	0.81	0.73
Course Satisfaction	0.68	0.86	0.77	0.68
Extrinsic Motivation	0.55	0.78	0.60	0.55
Perceived Learning Outcome	0.82	0.93	0.89	0.82
Perceived Relevance	0.71	0.91	0.86	0.71
Technique Satisfaction	0.61	0.81	0.66	0.61

TABLE 2: ITEM LOADINGS & CROSS-LOADINGS

<u>Indicators:</u>	Affective Attitude	Course Satisfaction	Extrinsic Motivation	Perceived Learning Outcome	Perceived Relevance	Technique Satisfaction
Affective Attitude-1	0.93	0.34	0.35	0.52	0.58	0.56
Affective Attitude-2	0.91	0.30	0.31	0.44	0.58	0.53
Affective Attitude-3	0.70	0.24	0.38	0.41	0.44	0.45
Course Satisfaction-1	0.35	0.94	0.57	0.56	0.63	0.55
Course Satisfaction-2	0.31	0.58	0.21	0.19	0.26	0.21
Course Satisfaction-3	0.24	0.91	0.45	0.49	0.42	0.51
Extrinsic Motivation-1	0.36	0.34	0.72	0.41	0.54	0.48
Extrinsic Motivation-2	0.17	0.27	0.64	0.22	0.33	0.31
Extrinsic Motivation-3	0.33	0.52	0.84	0.47	0.54	0.63
Perceived Learn Outcome-1	0.47	0.51	0.45	0.90	0.61	0.67
Perceived Learn Outcome-2	0.47	0.47	0.45	0.91	0.63	0.63
Perceived Learn Outcome-3	0.53	0.50	0.52	0.90	0.66	0.60
Perceived Relevancy-1	0.60	0.46	0.53	0.55	0.83	0.63
Perceived Relevancy-2	0.46	0.47	0.59	0.58	0.85	0.62
Perceived Relevancy-3	0.49	0.54	0.62	0.64	0.87	0.64
Perceived Relevancy-4	0.55	0.40	0.47	0.58	0.81	0.63
Technique Satisfaction-1	0.52	0.50	0.66	0.68	0.69	0.93
Technique Satisfaction-2	0.64	0.54	0.58	0.64	0.71	0.92
Technique Satisfaction-3	0.00	0.12	0.21	0.15	0.20	0.36

TABLE 3: LATENT VARIABLE CORRELATIONS

	Affective Attitude	Course Satisfaction	Extrinsic Motivation	Perceived Learning Outcome	Perceived Relevance	Technique Satisfaction
Affective Attitude	0.85					
Course Satisfaction	0.35	0.83				
Extrinsic Motivation	0.40	0.53	0.74			
Perceived Learning Outcome	0.54	0.54	0.52	0.91		
Perceived Relevance	0.63	0.56	0.66	0.70	0.84	
Technique Satisfaction	0.60	0.55	0.67	0.70	0.75	0.78

Note: The diagonal elements represent the square root of AVE

TABLE 4: STRENGTH OF PATHS AND T-STATISTICS

		Direction	Path Coefficient	Standard Error	T-Statistics	Result
	<u>Design Factors</u>					
H1	Perceived Learning Outcome → Technique Satisfaction	+	0.271	0.109	2.484	Supported
H2	Perceived Relevance → Technique Satisfaction	+	0.257	0.105	2.434	Supported
	<u>Human Factors</u>					
H3	Extrinsic Motivation → Technique Satisfaction	+	0.289	0.086	3.369	Supported
H4	Affective Attitude → Technique Satisfaction	+	0.182	0.090	2.009	Supported
	<u>Outcome</u>					
H5	Technique Satisfaction → Course Satisfaction	+	0.552	0.079	6.960	Supported

TABLE 2: ITEM LOADINGS & CROSS-LOADINGS

<u>Indicators:</u>	Affective Attitude	Course Satisfaction	Extrinsic Motivation	Perceived Learning Outcome	Perceived Relevance	Technique Satisfaction
Affective Attitude-1	0.93	0.34	0.35	0.52	0.58	0.56
Affective Attitude-2	0.91	0.30	0.31	0.44	0.58	0.53
Affective Attitude-3	0.70	0.24	0.38	0.41	0.44	0.45
Course Satisfaction-1	0.35	0.94	0.57	0.56	0.63	0.55
Course Satisfaction-2	0.31	0.58	0.21	0.19	0.26	0.21
Course Satisfaction-3	0.24	0.91	0.45	0.49	0.42	0.51
Extrinsic Motivation-1	0.36	0.34	0.72	0.41	0.54	0.48
Extrinsic Motivation-2	0.17	0.27	0.64	0.22	0.33	0.31
Extrinsic Motivation-3	0.33	0.52	0.84	0.47	0.54	0.63
Perceived Learn Outcome-1	0.47	0.51	0.45	0.90	0.61	0.67
Perceived Learn Outcome-2	0.47	0.47	0.45	0.91	0.63	0.63
Perceived Learn Outcome-3	0.53	0.50	0.52	0.90	0.66	0.60
Perceived Relevancy-1	0.60	0.46	0.53	0.55	0.83	0.63
Perceived Relevancy-2	0.46	0.47	0.59	0.58	0.85	0.62
Perceived Relevancy-3	0.49	0.54	0.62	0.64	0.87	0.64
Perceived Relevancy-4	0.55	0.40	0.47	0.58	0.81	0.63
Technique Satisfaction-1	0.52	0.50	0.66	0.68	0.69	0.93
Technique Satisfaction-2	0.64	0.54	0.58	0.64	0.71	0.92
Technique Satisfaction-3	0.00	0.12	0.21	0.15	0.20	0.36

TABLE 3: LATENT VARIABLE CORRELATIONS

	Affective Attitude	Course Satisfaction	Extrinsic Motivation	Perceived Learning Outcome	Perceived Relevance	Technique Satisfaction
Affective Attitude	0.85					
Course Satisfaction	0.35	0.83				
Extrinsic Motivation	0.40	0.53	0.74			
Perceived Learning Outcome	0.54	0.54	0.52	0.91		
Perceived Relevance	0.63	0.56	0.66	0.70	0.84	
Technique Satisfaction	0.60	0.55	0.67	0.70	0.75	0.78

Note: The diagonal elements represent the square root of AVE

TABLE 4: STRENGTH OF PATHS AND T-STATISTICS

		Direction	Path Coefficient	Standard Error	T-Statistics	Result
	<u>Design Factors</u>					
H1	Perceived Learning Outcome → Technique Satisfaction	+	0.271	0.109	2.484	Supported
H2	Perceived Relevance → Technique Satisfaction	+	0.257	0.105	2.434	Supported
	<u>Human Factors</u>					
H3	Extrinsic Motivation → Technique Satisfaction	+	0.289	0.086	3.369	Supported
H4	Affective Attitude → Technique Satisfaction	+	0.182	0.090	2.009	Supported
	<u>Outcome</u>					
H5	Technique Satisfaction → Course Satisfaction	+	0.552	0.079	6.960	Supported

FIGURE 1: RESEARCH MODEL

Design Factors

**Perceived
Learning
Outcome**

H1: 0.271(2.484)

**Perceived
Relevance**

H2: 0.257(2.434)

Human Factors

**Extrinsic
Motivation**

H3: 0.289(3.369)

**Affective
Attitude**

H4: 0.182(2.009)

**Technique
Satisfaction**

R sq.= 0.686

H5: 0.552 (6.960)

**Course
Satisfaction**

R sq.= 0.304

Hn: β (T-Stats)



References

1. Breunig, M. (2005). Turning experiential education and critical pedagogy theory into praxis. *Journal of Experiential Education* , Volume 28, No. 2, 106-122.
2. Cassel, C., Hackl, P., & Westlund, A. (1999). Robustness of partial least-squares method for estimating latent variable quality structures. *Journal of applied statistics*, Volume 26 , 435–446.
3. Chin, W. (1998). Issues and opinion on structural equation modeling. *MIS quarterly*, Volume 22, No. 1 .
4. Chin, W., & Newsted, P. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. H. (ed.), *Statistical strategies for small sample research* (pp. 307–341). Sage Publications.
5. Haenlein, M., & Kaplan, A. (2004). A beginner's guide to partial least square analysis. *Understanding Statistics Volume 3*, No. 4 , 283-297.
6. Howe, N., & Strauss, W. (2003). *Millennials Go to College*. USA: American Association of Collegiate Registrars and Admissions Officers and LifeCourse Associates.
7. Kolb, A., & Kolb, D. (2005). Learning styles and learning spaces: enhancing experiential learning in higher education. *Academy of management learning & education*, Volume 4, No. 2. 193-212.
8. Lancaster, L., & Stillman, D. (2002). *When Generations Collide*. New York: HarperCollins Publishers Inc.
9. Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS quarterly*, Volume 25, No. 4, 401–426.
10. Provenzo, E. (2002). *Teaching, Learning, and Schooling: a 21st Century Perspective*. Boston: Allyn and Bacon.
11. Ringle, C., Wende, S., & Will, A. (2005). *SmartPLS-2.0 (beta)*. Hamburg, Germany: University of Hamburg.
12. Rotherham, A., & Willingham, D. (2010). New, but a Worthy Challenge. *American Educator* , 17-20.
13. Schriesheim, C. (1979). The similarity of individual directed and group directed leader behavior descriptions. *Academy of management journal*, Volume 22, No. 2, 345- 355.
- 14.** Zlotkowski, E. (1996). Opportunity for all: linking service-learning and business education. *Journal of business ethics* . , Volume 15, Issue 1. 5-20.