

## **University Student Perceptions and Learning Outcomes of an Experiential Audit Project**

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### **Abstract**

*The purpose of the research is to highlight an experiential learning project used at a university that benefits both students and the university through an auditing experience. The article examines benefits of experiential learning and highlights the perceptions of students on the importance and value of the audit experience. The results, which included assessment for gender differences, found that males were able to report and demonstrate a greater enhancement of their learning, without diminishing the learning among females.*

**Keywords:** experiential learning, auditing, gender, learning outcomes, accounting education

### **1. Introduction**

One of the challenges of teaching auditing at the collegiate level is the lack of student experience in the participation in an actual audit. An equally challenging problem for many higher education institutions is compliance with regulations and greater accountability. With the lack of excess revenues to meet a growing need for internal auditing, private colleges and universities might find it difficult to meet some of the compliance work desired by the institution. One of the solutions to these issues is to create audit projects that allow students to experience the audit function and to serve the institution. For the past five years the university's auditing class has served the institution in conducting audit projects selected by the administration. The students have gained valuable experience in the audit process, bringing the practical application of the procedures and rules being covered in the audit course. At the same time the students have filled a need for the university that is difficult to justify the resources needed to accomplish the task.

### **2. A Review of Research**

#### **2.1 Experiential Learning**

Dewey (1938) promoted the concept of experiential learning stating, "education is not an affair of 'telling' and being told, but an active and constructive process" (p. 38).

In this 1938 work, Dewey developed his belief that education needs both traditional lecture methods and experiential learning which fosters individual discovery. Since that time others have addressed the benefits of student – centered experiential learning (Chickering, 1977; Estes, 2004; Rhykerd, Tudor, Weigand, Kingman and Morrish, 2006; Hawtrey, 2007; and Cheek and Arrington, 2011). In 1984, Kolb (p.21) popularized the four step recurring cycle for an experiential model originally proposed by Lewin. The four steps are:

1. Concrete experience
2. Observations and reflection
3. Formation of abstract concepts and generalizations and
4. Testing implications of new concepts in new situations

Once the final step is reached it serves as the basis for the new theory. The new theory is then repeated through the four steps and therefore creates a continuous model of learning beginning again with concrete experience or experiential learning (Kolb, 1984).

However, in spite of these early writings, much of a traditional university classroom continues to involve a teacher-centered lecture where students are expected to take copious notes in a non-interactive manner. Various authors (Hawtrey, 2007; Munoz and Huser, 2008; Estes, 2004) recommend combating this passive learning environment with the inclusion of experiential learning. Hawtrey (2007) and Estes (2004) defined experiential learning as an incorporating of active, participatory learning opportunities. They emphasized that the goal of experiential learning is to create a more total learning environment, involving more than just developing a student’s intelligence. This can be accomplished through more personal involvement of the student either through talking about the topic with others, teaching peers or applying the concepts to real-life situations. According to Eyler (2009) students learning through experiential education are able to fully engage in the learning process. Students then become more responsible for their own understanding. Eyler also pointed out that experiential education can “help students transition more gracefully from college to work” (p. 31). Beard, Schwieger and Surrendran (2008) echoed the importance of this form of active learning by noting that, “Experiential learning opportunities involving collaborative projects connecting leading-edge practitioners, professional organizations, student groups, and/or colleagues, both within and outside specific disciplines, not only increase the depth of the academic experience, but are also invaluable opportunities to develop and demonstrate soft skills” (p. 238).

A popular method of learning utilized in many business schools to engage students in a more active learning environment is case studies. However, McCarthy and McCarthy (2006) argued “case studies cannot substitute for learning that occurs through experiential learning activities, which provide students with a direct, personal encounter” (p. 201). One of the methods recommended by McCarthy and McCarthy (2006) was job shadowing. While conclusions could not be drawn due to sample size, they found that students believed job shadowing was more helpful to their learning than case studies.

## **2.2 Experiential Learning and Gender**

Research suggests that there are notable differences in the perceived value of male and females when exposed to experiential learning. Males and females differ in their learning styles, communication styles, and attentive abilities and as a result value experiential learning on different spectrums. Kaenzig, Hyatt and Anderson (2007) studied the differences in male and female students’ overall education experience with a strong emphasis on group work. Women reported more negative experiences with team-based assignments, but their overall educational experience remained positive. King and Gurian (2006) found that the academic success of male students improves when the teacher introduced discussion, interaction and movement into the class lesson. Evans, Whigham, and Wang (1995) found that experiential activities promote a more female friendly learning environment in the sciences.

## **2.3 Experiential Learning in Accounting**

As early as 1990, the accounting profession recognized the importance of active learning. During that year the profession issued Position Statement Number One through the Accounting Education Change Commission (AECC). The AECC (1990) noted that, “Students must be active participants in the learning process, not passive recipients of information. They should identify and solve unstructured problems that require use of multiple information sources. Learning by doing should be emphasized” (p. 3).

However, as noted by Bradford and Peck (1997), while the AECC defined educational outcomes expected of accounting students, the Commission did not define the methods on how to achieve those outcomes. Bradford and Peck (1997) pointed out that around the same time the AECC was studying accounting education, the American Association of Higher Education (AAHE) was also formed. While both the AECC and AAHE were independent of each other, they did come to similar conclusions for the outcome of accounting education. However, the AAHE went a step beyond the AECC and established seven principles for good practice in accounting education. One of the seven methods recommended by the AAHE was to encourage active or experiential learning.

Accounting literature since the formation of the AECC and AAHE has supported and encouraged experiential learning as a teaching pedagogy to develop a higher level of problem-solving communication and leadership skills. By 1998 the American Accounting Association reemphasized that accounting is about transforming business information into knowledge for decision making. In response to this report, Albrecht and Sack (2000) called for a complete overhaul of accounting education indicating that there are not enough out-of-classroom experiences including service learning assignments.

With the passage of Sarbanes Oxley Act (SOX) in 2002, Arens and Elder (2006) recognized the importance of changes needed in auditing education. They noted experiential learning as an important tool in the educational process, especially in assessing fraud risk. With so many pressures on the auditing profession after the collapse of Arthur Anderson, Enron, WorldCom and other companies in the early 2000s, the United States Treasury formed an Advisory Committee on the Auditing Profession. In United States Department of the Treasury Final Report (2008), the committee acknowledged the importance of experiential learning to enhance the quality and sustainability of the auditing profession. According to Black (2012), once the Advisory Committee issued its final report, a Pathways Commission was formed and examined accounting education even closer. They too recommended experiential learning as an enhancement of the educational process.

While the government was working on new requirements through SOX and recommendations to the auditing profession by the Department of the Treasury, the accounting profession was also conducting their own studies. In 2011, the American Institute of Certified Public Accountants (AICPA) released the findings of a yearlong initiative looking at the future of the Certified Public Accountant (CPA). These findings re-emphasized the core competencies of the profession that were established in the late 1990s. The core competencies include communication skills, leadership skills, critical-thinking and problem-solving skills, anticipating and serving evolving needs, synthesizing intelligence to insight and integration and collaboration. In order to lay a foundation to attaining these lifelong competencies, the AICPA reemphasized the importance of a rigorous education, including problem-solving, communications, and leadership skills. One of the encouraged methods was experiential learning.

#### **2.4 Service Learning**

One application of experiential learning across college curriculums is in the area of service learning. Giles and Eyler (1994) applied the theoretical roots of service learning to Dewey's earlier works. According to Bringle and Hatcher (1996) service learning allows students to connect theory to practice while meeting social problems. The idea builds on Dewey's and Kolb's earlier works to increase student comprehension of subject matter while filling a social need. By 2000, Bringle and Hatcher encouraged all of higher education to institutionalize service learning. Thomson, Smith-Tolken, Naidoo and Bringle (2010) pointed out that with proper alignment of community partner's needs, service learning is meant to enhance reciprocal learning. While some service learning engagements focus more on serving the community needs, it still remains that "the primary role of higher education" is to "produce graduates for a skilled workforce" (p. 233-234).

Zlotkowski (1996) indicated much of service learning developments have occurred in the social sciences and liberal arts. However, Gujrathi and McQuade (2002) pointed out that service learning assignments fit well with a business education. According to Andrews (2007), information systems, management, and marketing have more course objectives tied to service learning, whereas accounting and finance have fewer ties to the course objectives.

Zlotkowski (1996) found that service learning projects were important in helping business students achieve a sufficient educational breath.

Beyond developing technical skills, the projects also heightened the awareness of students in inter-personal, inter-cultural and ethical sensitivity. Angelidis, Tomic and Ibrahim (2004) utilized service learning to the strategic management class by preparing a strategic analysis for nonprofits and small businesses. Kolenko, Porter, Wheatley and Colby (1996) examined nine service learning programs in business ethics. Their conclusion was that much of the success of the service learning project was dependent on the individual faculty member and caution needed be exerted to ensure that the projects enhance student learning. The challenge then remains of how to incorporate active learning into the accounting curriculum and whether the student learns accounting content from the experience.

## **2.5 Service Learning in Accounting**

While limited, there are examples in the literature of service learning projects in accounting. Rama, Ravenscroft, Wolcott, and Zlotkowski (2000) established guidelines for educators and researchers in the area of service learning for accounting students helping create a link between academic learning and community involvement. They noted that projects can develop both intellectual skills and student personal outcomes. Gujarathi and McQuade (2002) built on their work by incorporating service learning into intermediate accounting through a consulting project to nonprofit agencies. Tschopp (2004) was able to address three areas of core competencies: functional, personal and an understanding of business contexts while serving the community. These students assisted non-profit organizations with the development of business plans.

Still and Clayton (2004) incorporated service learning into both auditing and governmental/nonprofit accounting courses. While their research recognized that it was difficult quantifying the effect of service learning on class performance, they were able to show with limited data through comparison of the two auditing courses that service learning had a significant positive impact on students' class performance. While utilized in the governmental/nonprofit course, Still and Clayton (2004) were unable to quantify the learning of the students. The authors did note that through this project, the students gained valuable real world experience. Others (Henry, Bitter, and Kubichan, 2005; Daigle, Hayes and Hughes II, 2007; Watson and Dow, 2010; Premuroso, Hopwood and Bhattacharya, 2011; Convery and Swaney, 2012) have developed instructional cases to utilize the learning benefits of active learning. While these are helpful, there still remains a need for active learning projects that can be replicated at numerous educational institutions. As Rama et al. (2000) pointed out an additional motivation of utilizing service learning is exposing students to the increased business complexities demanded by the accounting profession. The service learning can help develop those functional competencies of decision modeling, risk analysis, measurement, reporting and research by utilizing actual business situations.

One of the difficulties in designing experiential learning is the development of projects that can be contained in the typical college semester. Often auditing classes have turned to case studies, which have been shown to be superior to lecture and memorization (Bradford and Peck, 1997). However, engaging a student in the actual process of auditing built upon the study of the theories of auditing allows them to better synthesize the auditing content which, as noted by Lambert and Main (1998), students often have difficulty understanding when taught through lectures alone. While Lambert and Main (1998) engaged their students in cash audits of student organizations, the project addressed at our university engages students in the learning of auditing while serving the institution in review of its internal audit function.

## **3. Our Audit Project**

For the past five years, the university's auditing students have conducted special audit projects selected by the Associate Vice President of Finance and Administration and the Senior Accountant of the institution. While projects are redesigned each year, the focus remains on enhancing student learning while serving the university. Projects assigned to the students in past years include counting petty cash balances, reviewing internal controls over the cash receipts function, testing compliance over university procurement and budget review procedures, and determining the existence of fully depreciated assets. From these projects, the students were asked to recommend improvements to the procedures as well as determine if the procedures had been followed. Upon completion of the audit project, students presented their audits findings and process improvement suggestions to the Associate Vice President of Finance and Administration in a formal presentation. Each year the design of the student audit project is enhanced due to the professor's insight into student capabilities of completing the audit tasks and interacting with campus staff and administration.

In the spring of 2012, the students were asked to complete two audit projects. The first project was an audit of petty cash balances and internal controls over cash receipts procedures. The second project was an audit of fully depreciated fixed assets over \$5,000 and internal controls over asset disposition. There were 19 students in the class, divided into eight groups. For the petty cash audit, the groups were assigned two or three petty cash funds to count and to review internal control procedures. A petty cash template was used for recording actual balances compared to expected balances. Three internal control questions were asked of university staff to determine if internal control procedures over cash receipts were followed. Students were able to see applications of the internal controls over petty cash and recommend improvements to the administration.

For the fixed asset audit, the groups were provided a list of fully depreciated assets from the Business Affairs office and asked to determine if the assets were still in use or if the assets were disposed of or no longer provided value to the institution. In order to verify existence, the students met with university staff to physically locate the asset. If the assets were missing, students determined what procedures were followed in disposing the item. In the fixed asset audit, the greatest challenge was locating assets with vague or outdated descriptions, and locating the custodian of assets that had been on the books for 10 years or longer. University staff turnover sometimes prohibited the location of fixed assets because current staff did not have historical knowledge of those assets purchased several years before. These experiences presented the necessary unstructured problems which students brought back to class to resolve as an audit team.

While typical service learning projects tend to serve the high need of nonprofit organizations in the community, the project undertaken with the auditing class and the university serves a vital need for compliance with accounting regulations. The students also have a sense of giving back to the nonprofit university providing them with their education. This helps create relevancy for the students as they gain a greater appreciation of the university as an organized business. The students are able to enhance their learning by conducting portions of an internal audit without costing the college any direct costs. This fulfills both the learning of auditing procedures for the students and the needs of the university in accomplishing increased accountability encouraged since Sarbanes-Oxley. The benefits to the university were measurable in reports prepared by the students and presented to university administrators. However, important questions remained on the perception of the audit experience by the students.

### **3.1 Research Questions**

This study focuses on the effectiveness and student perceptions of the experiential learning auditing experience where students in an upper division auditing class undertook aspects of a “real life” auditing project for a “real” organization – in this case their home university. The following research questions were investigated regarding the effectiveness and perceptions of the experiential learning experience.

- RQ1: How effective was the experiential auditing experience in relationship to student learning?
- RQ2: What is the relationship between the students’ perceived level of the overall value of the experience and student learning?
- RQ3: What is the relationship between the students’ perceived level of acquiring valuable experience in aspects of auditing
- RQ4: What is the relationship between student effort towards the experiential experience and their level of learning via the experiential experience?
- RQ5: What is the relationship between student perception of the importance of the project to the accounting major and their level of learning via the experiential experience?
- RQ6: What is the relationship between student plans regarding whether to take the CPA exam in the future and their level of learning via the experiential experience?

### **3.2 Research Methodology**

An instrument was developed as a pre and posttest to assess aspects of student learning regarding auditing and the audit process during the experiential project. An additional 11 question survey, used to ascertain student reactions and opinions about the applied audit experience, was also administered with the posttest. This survey utilized a five point scoring Likert-scale. To provide anonymity for the students and still allow tracking of individual students, all three instruments were developed so that students could self-select a secret personal tracking code which students placed on each research instrument.

The sample consisted of 19 accounting majors in an upper division auditing class which was required for the university's accounting major. The gender breakdown of the 17 seniors and 2 juniors was 9 females and 10 males.

### 3.3 Results

#### RQ1: How effective was the experiential auditing experience in relationship to student learning?

The analysis of research question one (RQ1) examined the effectiveness of the experiential auditing experience related to student learning outcomes as measured between the difference between the pre and post audit tests. Table 1 displays the results of the pre and post audit tests from the overall sample as well as by gender. As can be seen in Table 1, the mean of the test score rose between the pre and posttests for the students overall and males, however, the females average incurred no change. The correlations shown identify no significant relationships between the pre and posttests for the overall sample and females. The male population experienced an increase in scores, which resulted in a moderate correlation.

**Table 1: Pre and Post Audit Test Scores**

	Overall	Female	Male
<b>Pretest mean / range</b>	4.32	4.56 / 3, 6	4.10 / 2, 6
<b>Posttest / range</b>	4.63	4.56 / 1, 7	4.70 / 2, 7
<b>Total score difference</b>	+ 6	0	+ 6
<b>Correlation</b> (pre to posttest scores)	0.277	0.126	0.475

Notes:

- Pearson r used for correlations

#### RQ2: What is the relationship between the students' perceived level of the overall value of the experience and student learning?

The analysis of research question two (RQ2) examined the students' perceived level of value of the experience related to student learning outcomes as measured between the difference between the pre and post audit tests. Table 2 displays the results of the means and correlations. While the means indicate students did agree there was a perceived level of value in the experience, the correlations shown identify no significant relationships between the perceived value of the project and the learning outcomes as determined by pre and posttests for the overall sample, females or males.

**Table 2: Pre and Post Audit Test Scores compared to perceived value of experience**

	Overall	Female	Male
<b>Mean</b>	4.37	4.56	4.20
<b>Correlation</b> (value of experience to change in test scores)	-0.116	0	-0.147

Notes:

- Pearson r used for correlations;
- Likert-scale of 1-5: 1=strongly disagree to 5=strongly agree

#### RQ3: What is the relationship between the students' perceived level of acquiring valuable experience in aspects of auditing and student learning?

The analysis of research question three (RQ3) examined the students' perceived level of value of the completing certain audit programs as measured between the difference between the pre and post audit tests. Table 3 displays the results of the means and correlations. While the means indicate students did agree there was a perceived level of acquiring valuable experience, the correlations shown identify no significant relationships between the perceived value of completing various aspects of auditing and the learning outcomes as defined by pre and posttest scores for females and the overall sample. However, there is a medium (moderate) negative correlation between perceived auditing experience and the pre and posttests for the male population.

**Table 3: Pre and Post Audit test scores compared to audit elements**

	Overall	Female	Male
<b>Mean</b>	4.42	4.53	4.34
<b>Correlation</b> (perceived value audit elements to change in test scores)	0.080	0.192	-0.323

Notes:

- Pearson r used for correlations;
- Likert-scale of 1-5: 1=strongly disagree to 5=strongly agree

**RQ4: What is the relationship between student effort towards the experiential experience and their level of learning via the experiential experience?**

The analysis of research question four (RQ4) examined the relationship of the students' effort on the project and their level of learning as measured between the difference between the pre and post audit tests. Table 4 displays the results of the means and correlations. While the means indicate students did agree they put effort into the project, the correlations shown identify no significant relationships between the pre and posttests for the overall sample, females or males.

**Table 4: Pre and Post Audit Test Scores compared to project effort**

	Overall	Female	Male
<b>Mean</b>	4.21	4.22	4.20
<b>Correlation</b> (student effort to change in test scores)	-0.130	-0.283	0.079

Notes:

- Pearson r used for correlations;
- Likert-scale of 1-5: 1=strongly disagree to 5=strongly agree

**RQ5: What is the relationship between student perception of the importance of the project to the accounting major and their level of learning via the experiential experience?**

The analysis of research question five (RQ5) looked at the students' perception of the importance of the project to the overall accounting major and their level of learning as measured between the difference between the pre and post audit tests. Table 5 displays the results of the means and correlations. While the means indicate students had a stronger agreement to the importance of the project, the correlations shown identify no significant relationships between the pre and posttests for the overall sample for females, while the males' difference in scores resulted in a medium (moderate) negative correlation.

**Table 5: Pre and Post Audit test scores compared to project importance**

	Overall	Female	Male
<b>Mean</b>	4.74	4.78	4.70
<b>Correlation</b> (perceived project importance to change in test scores)	-0.238	-0.134	-0.354

Notes:

- Pearson r used for correlations;
- Likert-scale of 1-5: 1=strongly disagree to 5=strongly agree

**RQ6: What is the relationship between student plans regarding whether to take the CPA exam in the future and their level of learning via the experiential experience?**

The analysis of research question six (RQ6) examined the relationship of the students' intent on taking the CPA exam in the future and their level of learning as measured between the difference between the pre and post audit tests. Table 6 displays the results of the means and correlations. While the means indicate that most students agreed that they intend to take the CPA test, the correlations shown identify no significant relationships between the pre and posttests for the overall sample and females and their intent to take the CPA exam. The results indicate a medium (moderate) correlation for the male population.

**Table 6: Pre and Post Audit Test Scores compared to future CPA exam candidacy**

	<b>Overall</b>	<b>Female</b>	<b>Male</b>
<b>Mean</b>	4.36	4.00	4.70
<b>Correlation</b> (plans to take CPA exam to change in test scores)	0.107	-0.125	0.553

Notes:

- Pearson r used for correlations;
- Likert-scale of 1-5: 1=strongly disagree to 5=strongly agree

#### 4. Discussion

The objectives of this research were to identify the effectiveness of an extended experiential learning exercise related to learning undergraduate university-level accounting and auditing concepts and practices. In addition, the research explored the impact of such an experiential learning experience on the student effort in the learning process and on their professional development plans (regarding taking the CPA examination). The research looked at these questions for the overall sample and also by gender.

The results of RQ1 support a positive impact of experiential learning on male undergraduate accounting majors. As shown in Table 1, the upper level medium correlation of 0.475 indicated a relationship between the experiential learning experience and the learning outcomes from that experience as measured by the difference in scores of the pre and posttests. These results are congruent with King and Gurian's (2006) findings. The low positive relationship (correlation of 0.126) between the experiential learning experience and pre and posttest score improvement for females are consistent with the research of Evans et al. (1995). As concern grows for the academic success of male versus female students at the university level (Taylor, 2005), the results of this research study supports the inclusion of experiential learning experiences as a course component in accounting classes that addresses this situation while not penalizing the learning styles or outcomes of female students.

One section of the posttest related to student perceptions of the project. The students were assessed on the perceived overall value of the project (RQ2), the perceived value of acquiring valuable audit experience (RQ3), the perceived student effort in the project (RQ4) and the perceived overall importance of the project to the major (RQ5). Based on the high means ( $x.xx/5$ ) of these questions, the students' perceptions of the project were very positive for the overall student analysis and the gender breakdown of males and females. However, the correlations to student learning were not as significant. Regarding RQ2, student perceptions of their learning and the importance of the project, the results show a very low negative correlation for both males and females in aspects of the auditing experience. This may indicate that while students acknowledged a positive value in the experience, they were not able to translate this to a written multiple choice test. Therefore, no significance can be noted from the results of this research question.

The results of RQ3, displayed in Table 3, support a medium negative correlation (-0.323) for males in terms of the importance of the experience to the major in relation to the pre and posttests. One possible explanation, with a mean of 4.34 (Table 3), is that while males perceived the value of acquiring experience in auditing as important it did not actually translate to more learning as demonstrated by the difference in the pre and posttest. In contrast, the results of RQ4, shown in Table 4, support only a low negative correlation (-0.283) for females in terms of the perception of student effort of the project. For females, this may indicate that their perceived effort did not translate to demonstrated learning. This is consistent with Bowman (2010) and Porter (2011) whose findings found that most people, including college students, cannot accurately report their learning gains.



Therefore, while the males perceived that they learned more during the project, this was not demonstrated by the pre and posttests. In contrast, females perceived more effort that was not demonstrated by the changes in the pre and posttests. The results of RQ5, displayed in Table 5, support a medium negative correlation (-0.354) for the males in terms of the perceived importance of the project to the major. However, when observing the means, it is apparent all students perceived this as an important project. While the research of Lambert and Main (1998) suggests that some students realize a better understanding and application of the auditing content through experiential learning, the students in this research were not able to translate their perceived importance of the project into an increase in the learning as demonstrated by the pre and posttest. This may have resulted from students not taking the instruments as seriously because there was no impact on their grade regardless of their outcomes.

According to the results of RQ6, a much stronger correlation of .553 exists between the males' intent to take the CPA exam and the increase in the scores between the pre and posttest. One possible explanation may be that the males intending to take the CPA exam saw an increased level of importance for them to capture the learning available in the project, and therefore were able to demonstrate that learning in the difference in the pre and posttest. This again reinforces King and Gurian (2006) that experiential learning is beneficial to the males without lowering the academic success of the female students. This may be particularly important for students to understand the importance of the project if they are intending to sit for the CPA exam. As Brahmasrene and Whitten (2001) found accounting work experience increased the likelihood of passing the CPA exam.

While many of the results did not indicate significant correlations, overall this project was perceived as important to the students in an enhancement of their accounting education. This project can serve as a model for an effective experiential learning project in an auditing classroom.

### ***5. Limitations and Recommendations for Future Research***

While efforts to maximize sample size were taken through a census sampling methodology, one limitation of this research includes the limited sample size which can increase the variability of the correlations. Additionally, the sample of students was from one university that attracts students predominantly from one region of the U.S.A. Another limitation is the nature of the student sample's completion of the pre and posttests. Credit was given for completion of the tests and the individual student scores had no impact on their final grade.

Recommendations for future research include increased sample size. Such an increase could result from classes with more students or longitudinal studies. An additional opportunity for research would be to study the impact of experiential auditing projects in various regions within and outside the U.S.A. in order to examine possible geographical cultural and sub-cultural differences. A final recommendation is to put into place a grading practice for the pre and posttests that encourages students to maximize their efforts in completing the two measurement documents.

### ***6. Conclusion***

The auditing project was designed to primarily enhance the learning of auditing with an active pedagogical experience. Students are now anticipating a significant experiential learning assignment in what was once taught as a predominately theoretical course. In the process of enhancing the student learning, the university is being served by the students filling a need that would otherwise likely not be met. The results of the project, while limited, indicate that this is a positive experience especially for males within the classroom. This also adds to the body of literature on experiential learning in the accounting field and creates a learning experience which could be replicated on numerous campuses. Giving the students valuable audit projects increases the university's compliance with recommendations of Sarbanes-Oxley without any direct expense. The audit project addresses both the students' need for experience of at least portions of the audit process and the university's need to meet growing demands of greater accountability and controls over financial procedures.

## References

- Accounting Education Change Commission (AECC). (1990, September). Objectives of education for accountants: Position statement number one. *American Accounting Association*. Retrieved on June 19, 2012 from <http://aaahq.org/AECC/pdf/position/pos1.pdf>.
- Albrecht, W. S. & Sack, R. J. (2000). Accounting education: Charting the course through a perilous future. *American Accounting Association*. Retrieved on June 19, 2012 from <http://aaahq.org/pubs/AESv16/toc.htm>.
- American Accounting Association (1998, July 15). The future viability of AAA members' programs. Retrieved on June 19, 2012 from <https://aaahq.org/about/reports/chngenv98.htm>.
- American Institute of Certified Public Accountants (AICPA). (2011, December). CPA horizons 2025 report. Retrieved on June 19, 2012 from <http://www.aicpa.org/Research/CPAHorizons2025/DownloadableDocuments/cpa-horizons-report-web.pdf>.
- Andrews, C. P. (2007, September/October). Service learning: Applications and research in business. *Journal of Education for Business*, 83(1), 19-26.
- Angelidis, J., Tomic, I. & Ibrahim, N.A. (2004, Spring). Service-learning projects enhance student learning in strategic management courses. *Review of Business*, 25(2), 32-36.
- Arens, A. A. & Elder, R.J. (2006, November). Perspectives on auditing education after Sarbanes-Oxley. *Issues in Accounting Education*, 21(4), 345-362.
- Beard, D., Schwieger, D. & Surendran, K. (2008, Summer). Integrating soft skills assessment through university, college, and programmatic efforts at an AACSB accredited institution. *Journal of Information Systems Education*, 19(2), 229-240.
- Black, W.H. (2012, August). The activities of the Pathways Commission and the historical context for changes in accounting education. *Issues in Accounting Education*, 27(3), 601-625.
- Bowman, N.A. (2010, June). Can 1<sup>st</sup> year college students accurately report their learning and development? *American Educational Research Journal*, 47(2), 466-496.
- Bradford, B. M. & Peck, M. W. (1997, July/August). Achieving AECC outcomes through the seven principles for good practice in undergraduate education. *Journal of Education for Business*, 72(6), 364-368.
- Brahmasrene, T. & Whitten, D. (2001, September/October). Assessing success on the uniform CPA exam: A logit approach. *Journal of Education for Business*, 77(1), 45-50.
- Bringle, R. G. & Hatcher, J.A. (1996, March/April). Implementing service learning in higher education. *Journal of Higher Education*, 67(2), 221-239.
- Bringle, R. G. & Hatcher, J.A. (2000, May/June). Institutionalization of service learning in higher education. *Journal of Higher Education*, 71(3), 273-290.
- Cheek, J.G. & Arrington, L.R. (2011, January/February). Reshaping SAE to provide experiential learning in the 1990's. *The Agricultural Education Magazine*, 83(4), 5-8.
- Chickering, A.W. (1977). *Experience and learning: An introduction to experiential learning*. New Rochelle, NY: Change Magazine Press.
- Convery, S.P. & Swaney, A.M. (2011, December). Analyzing business issues – with Excel: The case of Superior Log Cabins, Inc. *Issues in Accounting Education* 27(1), 141-156.
- Daigle, R.J., Hayes, D.C. & Hughes, K.E. II (2007, Spring). Assessing student learning outcomes in the introductory accounting information systems course using the AICPA's core competency framework. *Journal of Information Systems*, 21(1), 149-169.
- Dewey, J. (1938). *Experience and education*. New York: The Free Press.
- Estes, C.A. (2004). Promoting student-centered learning in experiential education. *The Journal of Experiential Education*, 27(2), 141-160.
- Evans, M.A., Whigham, M. & Wang, M.C. (1995). The effect of a role model project upon the attitudes of ninth-grade science students. *Journal of Research in Science Teaching*, 32(2) 195-204.
- Eyler, J. (2009). The power of experiential education. *Liberal Education*, 95(4), 24-31.
- Giles, D.E., Jr. & Eyler, J. (1994, Fall). The theoretical roots of service-learning in John Dewey: Toward a theory of service learning. *Michigan Journal of Community Service Learning*, 1(1), 77-85.
- Gujarathi, M.R & McQuade, R.J. (2002, January/February). Service-learning in business schools: A case study in an intermediate accounting course. *Journal of Education for Business*, 77(3), 144-150.

- Hawtrej, K. (2007, Spring). Using experiential learning techniques. *Journal of Economic Education*, 38(2), 143-152.
- Henry, L. J., Bitter, M. E. & Kubichan, T. (2010, February). The Violet Bay School District deficit of 2005: Evaluating internal control and identifying risks. *Issues in Accounting Education*, 25(1), 119-153.
- Kaenzig, R., Hyatt, E. & Anderson, S. (2007, November/December). Gender differences in college of business educational experiences. *Journal of Education for Business*, 83(2), 95-100.
- King, K. & Gurian, M. (2006). Teaching to the minds of boys. *Educational Leadership*, 64(1) 60-61.
- Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Kolenko, T.A., Porter, G., Wheatley, W. & Colby, M. (1996, January). A critique of service learning projects in management education: Pedagogical foundations, barriers, and guidelines. *Journal of Business Ethics* 15(1), 133-142.
- Lambert, J. C. & Main, D. (1998, May). Cash audit of student organizations. *Issues in Accounting Education*, 13(2), 375 – 377.
- McCarthy, P. R. & McCarthy H. M. (2006, Mar/Apr). When case studies are not enough: Integrating experiential learning into business curricula. *Journal of Education for Business*, 81(4), 201-204.
- Munoz, C. & Huser A. (2008, March/April). Experiential and cooperative learning: Using a situation analysis project in principles of marketing. *Journal of Education for Business* 83(4), 214-220.
- Porter, S. R. (2011, Fall). Do college student surveys have any validity? *The Review of Higher Education* 35(1), 45-76.
- Premuroso, R. F., Hopwood, W. S., & Bhattacharya (2011, February). Tasteless Tea Company: A comprehensive revenue transaction cycle case study. *Issues in Accounting Education*, 26 (1), 163 – 179.
- Rama, D. V., Ravenscroft, S.P., Wolcott, S. K. & Zlotkowski, E. (2000, November). Service-learning outcomes: Guidelines for educators and researchers. *Issues in Accounting Education*, 15(4), 657- 692.
- Rhykerd, R.L., Tudor, K.W., Wiegand, B.R., Kingman, D.M., & Morrish, D.G.(2006, December). Enhancing experiential learning through a hands-on crop production and marketing contest. *NACTA Journal* 50(4), 25-30.
- Still, K. & Clayton, P.R. (2004, November). Utilizing service-learning in accounting programs. *Issues in Accounting Education*, 19(4), 469- 486.
- Taylor, M. (2005, January 26). University gender gap widens as women increase their lead. *The Guardian*. Retrieved January 18, 2013 from <http://www.guardian.co.uk/uk/2005/jan/27/highereducation.students>.
- Thomson, A.M., Smith-Tolken, A.R., Naidoo, A.V. & Bringle, R. G. (2011). Service learning and community engagement: A comparison of three national contexts. *International Journal of Voluntary & Nonprofit Organizations*, 22, 214 – 237.
- Tschopp, D. J. (2004, June). The Seneca Babcock business plan: A case study in using service learning to meet the AICPA core competencies. *Journal of Education for Business*, 79(5), 261-266.
- United States Department of the Treasury (2008, October 6). *Advisory committee on the auditing profession: Final report*. Washington, DC: The Department of the Treasury.
- Watson, M.W. & Dow, K. E. (2010, August). Auditing operational compliance: The case of employee long distance piracy. *Issues in Accounting Education*, 25(3), 513 – 526.
- Zlotkowski, E. (1996, January). Opportunity for all: Linking service-learning and business education. *Journal of Business Ethics*, 15, 5-19.