Integrating active learning and assessment in the accounting classroom

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ABSTRACT

Some colleges and universities are utilizing the inclusion of more active learning techniques in course content. Active learning involves students in thinking about what they are doing as they accomplish tasks or assignments in order to develop a deeper understanding of the topic or issue. In addition to a focus on enhancing student learning, the assessment of student learning has also become more increasingly important in recent years to accreditation agencies and state legislatures. It is important is that college and universities develop assessment programs and utilize the assessment results to improve the curriculum. This paper demonstrates how a project that was originally designed as an active learning project can also be utilized as an embedded course assessment tool and integrated into a college's assessment plan.

Keywords: AACSB International Accreditation, Active Learning, Assessment Programs, Embedded Course Assessment Tool.

INTRODUCTION

In recent years, the focus of student learning in and out of the classroom has become more and more important. There has been a concern in higher education concerning a lack of relevancy in classroom lectures and outside assignments. Additionally, the Accounting Education Change Commission (AECC) has called for changes in the delivery of course material in an effort to develop more innovative teaching techniques. One strategy colleges and universities are utilizing in response to the criticisms is to increase the inclusion of more active learning techniques in course content. Active learning involves students in thinking about what they are doing as they accomplish tasks or assignments in order to develop a deeper understanding of the topic or issue. In addition to a focus on enhancing student learning, the assessment of student learning has also become more increasingly important in recent years. State legislatures and accrediting agencies have begun to include requirements related to the documentation of the assessment of student learning. The assessment plan should address the evaluation of student performance in order to enhance student learning. The assessment of student learning can be either at the program level or at the major level or a combination of both. What is important is that college and universities develop assessment programs and utilize the assessment results to improve the curriculum. This paper demonstrates how a project that was originally designed as an active learning project can also be utilized as an embedded course assessment tool and integrated into a college's assessment plan.

THE CONCEPT OF ACTIVE LEARNING

Recently, a paradigm shift has begun in the way accounting classes are taught. The shift is away from the traditional lecture format to a more active and team learning format. One reason for this change stems from the influence of the Accounting Education Change Commission's pronouncements encouraging universities to involve the students more in the learning process. The Accounting Education Change commission has been a leader in calling for changes to teaching methods to enable more effective learning of complex accounting topics and issues. In the past decade, approaches to teach accounting through the use of active learning projects have been rapidly evolving. Saunders and Christopher suggest five objectives to utilize to encourage more student involvement in the learning process. These include:

1. The student should be an active participant in the learning process;
2. The student should be taught to identify and solve unstructured problems that require use of multiple information sources;
3. Learning by doing should be emphasized;
4. Working in groups should be encouraged; and
5. The creative use of technology is essential." (Saunders and Christopher 2003).

Active learning has been defined as enabling students to achieve a deeper level of learning as opposed to a surface level of learning. Active approaches to learning have been stressed by educational theorists for the last century (Dewey 1916, 1938; Kolb 1984; Druckman and Bjork 1994; Slavin 1995). More recently active learning activities have been linked to the development of higher-order cognitive thinking skills (Bloom 1956; Anderson and Krathwohl 2001). In accounting, empirical studies provide evidence suggesting that active learning techniques can lead to a higher tolerance for ambiguity, better recall of material, and improved

performance (Carland et al. 1994; Hermanson 1994; Ravenscroft et al. 1995; Ciccotello et al. 1997; Stone and Shelley 1997; Hwang et al. 2005, 2008; Springer and Borthick 2007). This is particularly true in light of the increasing complexity of the accounting environment. With deep learning, the retention lasts longer than the exam on the material.

In the classroom, active learning techniques can include problem-solving exercises, informal small group exercises, case studies, role-playing, simulations, as well as others. The students are benefited by a creation of greater interest in the material and by improving their critical thinking, analytical, and problem solving skills.

THE EMERGENCE OF ASSESSMENT

Assessment has become more and more important in recent years, receiving increased attention from national and regional accrediting agencies as well as state legislatures. Assessment of student learning is a subject of keen interest in business schools across the nation. Much of that interest reflects the influence of the business school accreditor at the program level, AASCB International. The acronym now stands for The Association to Advance Collegiate Schools of Business, but was formerly known as the American Assembly of Collegiate Schools of Business.

In April 1991, AACSB International adopted new criteria for business school accreditation and by 1993 the Association was reviewing business schools using standards that are “mission linked” and centered on continuous quality improvement (Martinez, 1995).

Aware of the profound changes forcing actual businesses to become more mission-centered and quality conscious, AACSB International sought to encourage business schools to emulate these characteristics as well. AACSB International now requires business schools to develop their own mission statements against which their progress can be measured. In what has been described as a "near-miraculous transformation in its approach" (Dill, 1998, p. 20), AACSB International broadened its focus to include outcomes measures, as well as traditional input measures. These output measures monitor achievement of program objectives.

According to AACSB International’s Assurance of Learning (AOL) Standards, student learning is the central activity of higher education. Definition of learning expectations and assurance that graduates achieve learning expectations are key features of any academic program. The learning expectations derive from a balance of internal and external contributions to the definition of educational goals. Members of the business community, students, and faculty members each contribute valuable perspectives on the needs of graduates. Learning goals should be set and revised at a level that encourages continuous improvement in educational programs. Schools use a variety of structures and approaches to provide learning experiences for students. Programs exist at a variety of academic levels and for a variety of purposes (AACSB International 2011, pg. 58).

The following general definitions describe learning expectations at the Undergraduate degree level. Undergraduate degree programs (bachelor’s level) in business educate students in a broad range of knowledge and skills as a basis for careers in business. Learning expectations build on the students' pre-collegiate educations to prepare students to enter and sustain careers in the business world and to contribute positively in the larger society. Students achieve knowledge and skills for successful performance in a complex environment requiring intellectual ability necessary to organize work, make and communicate sound decisions, and react successfully to

unanticipated events. Students develop learning abilities suitable to continue higher-level intellectual development (AASCB International 2011, pg. 59).

One important purpose of the AASCB in adopting the new standards was for business schools to utilize the information gathered from the assessment activities to improve student learning or "close the loop". Overall, an AOL process should address these four questions:

1. What are your learning goals?
2. How and where did you assess them?
3. What did you find out? and,
4. What are you going to do about it (Martell 2007).

At the present time, the AACSB International standards require that the assessment of learning be conducted at the degree program level and not the major or course levels. Not every course in the core or a major has to be incorporated into the AOL plan, every student does not have to be assessed, nor does every goal have to be assessed each year. However, it is imperative that schools of business have a well defined plan that establishes learning goals for the programs, identifies learning objectives to reach the goals, establishes where the learning goals will be assessed, analyzes the results of the assessment measures, and then devises a plan to close the loop in order to achieve the goal of enhancement of student learning.

While the AACSB International emphasizes assessment at the program level, some regional accrediting agencies are placing more emphasis on assessment and learning goals at the major level. Other external stakeholders such as employers are also interested in program and major level assessment plans. In designing learning goals, employers are one group of stakeholders to contact in answering the first question as to what you want your students to learn in your program.

The second question to be answered in an assessment plan is to answer how you know that your students are learning based on the learning goals established. With both the assessment at the program level and the major level, the outcome of the assessment measure should indicate if the goal is reached. The assessment method can be an embedded measures utilized at the course level where teaching and learning actually take place. There is an emphasis of between the direct relationships of learning strategies, learning outcomes and assessment (Ammons and Mills 2005). If course level goals are being met, they can feed into the overall assessment plan. If the goals are not being reached, individual instructors can establish plans to change course content or classroom activities and assignments in order to enhance learning and in turn reach the learning goal. It is important that a college or university link their overall strategic plan to the undergraduate goals and then to the major degree goals.

The third and last step in an assessment plan is to analyze the results and determine if there needs to be improvement in the student learning. Depending on the assessment measure, sometimes a time lag exists between administering the assessment tool and then revising the curriculum based on the results. The students presently being assessed do not benefit from any resulting changes. Harwood and Cohen (1999) define outcome assessment as assessment that is conducted by administrators on a periodic basis to benefit students and classes in the future. They define classroom assessment as assessment utilized by faculty to immediately make changes to benefit current students. They further suggest that this classroom assessment can be integrated into the overall assessment program of the college. Course embedded assessment measures depend upon activities that take place in the actual classroom. They are measures related directly to how students learn. The current active learning project that is the focus of this paper can be utilized as both a classroom assessment measure, designed for immediate feedback

to students, and integrated into the overall assessment program of the college, to make changes to course content to benefit future students.

ASSESSMENT GOALS

Our college has established six goals for our undergraduate business degree based on the college's strategic plan. In establishes goals, they should incorporate the wording "have" or "be" in their definition. Learning objectives are then identified to operationalize the goals. The overall undergraduate BBA goals and related learning objects are assessed at the program level. The accounting discipline then further defines the goals for accounting majors, identifies learning objectives related to the goals and then assesses these goals at the major level. The goals, both at the undergraduate business degree level and the accounting major level, as well as the assessment measures are defined as indicated in Table 1 (Appendix).

One of the goals for accounting graduate is the graduates will demonstrate a working knowledge of accounting as noted in 2(b) above. This goal is further segregated into financial accounting, cost/managerial accounting, tax accounting, accounting information systems, and auditing. The assessment measure that is used to assess whether our graduates have reached this goal is a major specific exam (MSE). The MSE is also used to assess several other goals of the accounting assessment plan. This exam, developed by the accounting faculty, contains multiple choice questions related to all areas of required accounting courses. It is one type of direct assessment measure designed to benefit future students. The results of the exam are analyzed by the accounting faculty and those questions with less than expected results are examined in relation to the curriculum and the curriculum is revised to increase student competencies related to the topic, part of the continuous improvement portion of the assessment plan.

The project outlined in this paper is too narrow of a focus to address the broad major specific goals of all of financial accounting. However, it is one tool that provides feedback on one specific area of financial accounting and also feedback on the overall undergraduate goals for (a) proficiency in critical thinking; (b) knowledge of key concepts in key business areas; (c) proficiency in written communication; and (d) proficiency in information technology, particularly the use of spread sheet and word processing software to present clear and concise documents. The student is also required to use internet resources for information for completion of the project. Because feedback is given to the student at several intervals during the duration of the project, it provides the current students with information for continuous improvement. Many assessment measures only benefit future students. This project benefits both current students and future students.

THE PROJECT

The accounting project was originally developed as an active learning project and was first assigned to students in an Intermediate Accounting class at a southeastern, regional university during the fall semesters of 2007 and refined through the Fall of 2011. The original intent of the project was to enhance student learning related to the study of accounting for investments as well as to develop the students' critical thinking skills, analytical skills, and written presentation skills. It requires the students to take an active role in the learning process as very little instruction is given to the students other than the outline of the requirements of the project. The students are responsible for organizing and preparing clear and concise documents

to satisfy the requirements of the project. They are also required to utilize effective technological skills in conducting the research for the project and in completing the work.

The study of accounting for investments is the focus of entire chapter in the majority of intermediate accounting textbooks. The material on investments primarily centers on the accounting issues related to investments in debt securities and equity securities by a company where the company does not acquire a significant or controlling interest as a result of the investment in the securities of outside companies. The material in the investments chapter lends itself readily to be taught through active learning due to the nature of the accounting standards and transactions in the investments chapter as well as the external information readily available to the student. The outline of the project instructs the students to simulate an investment of $450,000 in three portfolios: stocks classified as "Available-for-Sale Securities", stocks classified as "Trading Securities", and bonds classified as "Available-for-Sale Securities". These are three classifications of securities that are the primary focus of the study of investments in the intermediate accounting course. The instructions for the project indicate the simulated investment is to be divided fairly equally, $150,000, between the three portfolios. The students utilize external stock market information to select the stocks and bonds of companies to transact a simulated purchase. The project covers a three month period. During the duration of the project, each student is required to document the simulated purchase and sales transactions for securities they selected as well as the subsequent accounting treatment of the transactions. The students are also required to document the accounting treatment for the adjustment of their portfolios to fair value at the end of month one and month two. A grading rubric is utilized to provide the students with feedback and to serve as a course embedded assessment measure related to the critical thinking, analytical, technical and communication skills of the students.

Phase One of the Project

In phase one of the project, the students are first asked to write a short paper related to the issues for the accounting for both investment in equity securities and debt securities. The students are also instructed to document the accounting treatment for their simulated investment for month one. In the accounting treatment, the students are asked to prepare the actual journal entries that would be made with the simulated investment. They are also asked to provide documentation to support the market price of the simulated purchases and the computations for the related entries. The students are intentionally given very little instruction on the project so they can develop their own documentation techniques. The students turn in phase one of the project. It is graded with the assistance of a rubric designed for this stage of the project as outlined in Table 2..

A well designed rubric can be used as a formative assessment measure in order to identify what needs to be improved in the student learning before assignment of phase two of the project. When the student receives the first assignment back with the grading rubric, they are provided immediate feedback and can learn from their mistakes. They are given a one time opportunity to correct the simulated investment transactions in phase one. Classroom time can be spent on areas where students demonstrate a lack of understanding.

In an actual working accounting environment, immediate feedback is how staff accountants further develop their technical skills. They complete an assignment (i.e. audit of cash) and then a senior accountant evaluates the assignment in relation to the instructions (i.e. audit program). The senior accountant gives the staff accountant review notes to correct any

shortcomings in their work. While the senior accountant could sometimes correct the work quicker than giving it back to the staff accountant to complete and then check again, it is the learning process of identifying mistakes and then correcting them that is important. The staff accountant learns from his or her mistakes and then they take an active role in correcting them.

Rubrics are a useful tool for assessing projects. They should only focus on assessing one attribute at a time and a well designed rubric only has to have three levels of gradations on a scale. The gradations can either be stated in qualitative or quantitative terms. The well designed rubric should be able to be used by more than one individual to assess the project and then get similar results.(AACSB Applied Assessment Seminar, 2011) The rubric utilized for phase one of the project is indicated in Table 2 (Appendix).

Phase Two of the Project

In the second phase of the project, the students are given a one time opportunity to correct their mistakes related to the documentation of the simulated purchase of equity and debt securities. They are then instructed to complete more complicated simulated investment transactions. They are asked to sell at least one equity security at the current market price on the date of the sale and record the subsequent gain or loss on the sale. They are also required to document the accounting treatment for their transaction. Students are assessed on the detail of the information provided as well as external market price information provided. The students are then instructed to take the proceeds from the sale and transact the simulated purchase of another stock. In a more difficult task, the students are instructed to adjust both their equity portfolios and their bond portfolio to market value at the end of month two of the project. A similar rubric is utilized in the second phase to assess the students' learning related to these topics. They are assessed on the correct journal entry, the documentation of the calculation of the amounts utilized in the adjustment, as well as providing external documentation on market prices. The students are given the rubric results of the grading of phase two of the project before they complete phase three of the project.

Phase Three of the Project

In the third phase of the project, the students are given a one-time opportunity to correct the mistakes from phase two. If they have not previously corrected phase one mistakes, they cannot go back and correct these. In the third month of the project, the students are instructed to adjust their individual equity and bond portfolios to the market price at the end of month two. This is often a harder accounting concept for students to understand as they have to take into consideration the adjustment to fair market value at the end of month one as prepared in phase two. However, the feedback from the first two phases of the project

Document the Assessment

After the project is completed by each student and each student's graded rubric is completed, it is necessary to document the summarization of the student grades for an overall student grade. This can be done by the use of a spreadsheet. Our college uses a standardized form to report the results of the assessment to the discipline chair and/or the assessment

coordinator. The detailed rubrics and the summary spreadsheets are maintained by the instructors. An abbreviated form of the report is indicated in Table 3 (Appendix).

CONCLUSION

This paper demonstrates how instructors do not have to "reinvent the wheel" in order to complete assessment tasks and measures. With every project or case assigned, the instructor is already completing some type of assessment. It is just necessary to document the assessment and to tie the assessment to the college's overall program goals as well as the discipline's specific goals. The previous example indicates how an active learning project was integrated into the assessment plan to show evidence of at least four of the accounting discipline's specific learning goals. The only additional step necessary is to summarize the results of the class on the project and compare the results to the overall learning goal(s). A well designed rubric and summary form can easily be used to summarize the results of the entire class. The summary form also allows for the documentation of any changing to the curriculum or teaching methodology related to the assessment results. The "closing the loop" step is the most important. Integrating what you are already doing and using standardized formats makes the overall assessment process much more "doable".

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