

**The State of Accounting Education in U.S. Business Schools:
An Examination and Analysis of Active Learning Methods
and Related Technology Employed by Accounting Educators**

by

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Abstract

Twenty years ago, the Accounting Education Change Commission (AECC) called for major changes in the way accounting students at universities and colleges in the U.S. are educated. The changes advocated by the AECC were intended to make students active participants in the learning process rather than passive recipients of information, and specifically included increased use of learning by doing, working in groups, and creative use of technology.

Unfortunately, there is little evidence that significant changes have occurred during the past 20 years in accounting education. Indeed, some evidence suggests that accounting educators might be relying more on the traditional lecture approach than ever before. For instance, in a recent study of graduate accounting education, Frecka and Reckers (2010) state, “anecdotally, there has been a drift toward more accounting “knowledge” as opposed to “skills” development...over the last decade.”

In this study, we will attempt to answer three important questions regarding the use of active learning techniques by accounting educators in the U.S. These questions are: (1) What techniques and technologies are accounting educators currently using to encourage active learning, (2) What barriers are preventing accounting educators from making greater use of active learning techniques in their courses, and (3) Are there significant differences in faculty’s and students’ perceptions of the effectiveness of active learning techniques?

Budget Narrative

Since the proposed study involves the use of an Internet-based survey to gather data, we will not need funds for supplies, equipment, or postage. However, we would like to request funding for a student assistant and a summer faculty stipend as follows:

Student assistant: \$1,395

A graduate student will assist with the creation of an email list of accounting educators in the U.S., creation and testing of the faculty survey instrument, and creation and testing of the student survey instrument. The student will also assist with summarizing and analyzing the results of both surveys. Estimated times for these activities are presented below.

Creation of faculty email list	70 hours
Creation of faculty survey	25 hours
Testing of faculty survey	5 hours
Creation of student survey	20 hours
Testing of student survey	5 hours
Summary and analysis of results	<u>30</u> hours
Total student hours	155 hours
Graduate student hourly rate	x <u>\$9</u> per hour
Total funding requested for student assistant	<u>\$1,395</u>

Summer stipend: \$3,850

One summer faculty stipend of \$3,850 is requested for Summer 2011 for one of the study's coauthors. As specified in the attached timeline, the study's findings will be analyzed and much of the study's writing will be performed during Summer 2011.

Budget Total: \$5,245



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MEMORANDUM

To: Faculty Scholarship of Teaching and Learning (SOTL) Grants Committee

From: Joseph B. Mazzola
Dean

Date: October 28, 2010

Re: Endorsement of SOTL Grant Proposal

Dr. Alan Blankley, Associate Professor of Accounting; Dr David Kerr, Associate Professor of Accounting; and Dr. Casper Wiggins, Big Five Distinguished Professor of Accounting are submitting a proposal for a Scholarship of Teaching and Learning Grant. I strongly endorse their proposal.

Twenty years ago, the Accounting Education Change Commission (AECC) indicated a need for major changes in the way accounting students are educated. The AECC specifically called for more active participation by students in the learning process and more creative use of available technology. In the year 2000, a study concluded there was little evidence that these modifications had been made in accounting education. This proposed study will examine whether the state of accounting education has improved over the past 10 years by investigating three important areas that affect accounting education in the US: techniques and technologies used by accounting educators to encourage and promote active student learning; obstacles which prevent accounting educators from using active learning techniques; and differences in faculty and student perceptions of the effectiveness of active learning techniques.

Drs. Blankley, Kerr and Wiggins are acknowledged experts in the accounting field and have published numerous articles in both academic and professional journals. If funded, their findings will be submitted for presentation during UNC Charlotte's fall 2011 Teaching Week activities and will be submitted for presentation to faculty in other campus venues. The study will also be submitted for presentation at regional and national academic conferences, and they will seek publication of the findings in a high quality academic journal.

I am confident the research to be conducted in this proposal will serve to increase the literature in the area of accounting education. Should you need additional information, please contact me. Thank you for your consideration.



Project Narrative

Specific Aims

The purpose of this proposed study is to gather and report information regarding three important questions affecting the current state of education in U.S. accounting programs: (1) What techniques and technologies do accounting educators employ to encourage active learning, (2) What barriers are preventing accounting educators from making greater use of active learning techniques in their courses, and (3) Are there significant differences in faculty's and students' perceptions of the effectiveness of active learning techniques?

In 1989, the American Accounting Association, recognizing a need to improve university students' educational experiences, formed the Accounting Education Change Commission (AECC) whose ongoing mission is to be a "catalyst for improving the academic preparation of accountants so that entrants to the accounting profession possess the skills, knowledge, and attitudes required for success in accounting career paths" (AECC 1990). One of the AECC's notable accomplishments was the issuance of a position statement, created in consultation with the largest public accounting firms in the U.S., titled "Objectives of Education for Accountants." This position statement advocated significant changes in the way business students are taught, particularly the use of active learning techniques and create use of technology to enhance the learning process:

"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.** Working in groups should be encouraged. **Creative use of technology is essential.** ... Teaching methods that expand and reinforce basic communication, intellectual, and interpersonal skills should be used." (emphasis added) (AECC 1990).

Ten years after the AECC's position statement was issued, Albrecht and Sacks (2000) concluded that there had been very little improvement and insufficient change in accounting education. They warned: "Accounting leaders and practicing accountants are telling us that accounting education, as currently structured, is outdated, broken, and needs to be modified significantly. ... If serious changes are not made, accounting education will lose its relevance to our business schools, to our students, and to the employers who might otherwise be interested in our students." Two areas where Albrecht and Sacks found accounting education is deficient is in pedagogy (e.g., too much lecture, too little active learning) and use of technology.

Now, in 2010, we propose to investigate whether the state of accounting education has improved over the past 10 years. As discussed above, we will identify how, and the extent to which, accounting educators are using active learning techniques and technology to achieve the objectives expressed by the AECC and Albrecht and Sacks. In addition, we will examine factors that have impeded/prevented many faculty members from changing their teaching methods from the traditional lecture-only approach to methods involving active learning.

Literature Review

People learn by doing. **Active learning** is broadly defined as any educational activity that involves more than passively listening to a lecture. The key element of active learning is the student's active engagement in the learning process, including discovering, processing, and applying information. The goals of these activities include not only better retention of information but also the development of students' higher-order thinking skills such as the ability to effectively analysis, synthesize, and evaluate information (Bonwell & Eison 1991; McKinney 2010; Prince 2004).

There is a multitude of techniques educators can use to engage students in the learning process. These include, but are not limited to:

- group activities such as cooperative and collaborative learning in which a group creates a particular product such as an answer to a discussion question or problem,
- analysis and discussion of case studies (the “case method”),
- questioning of students during class (the “Socratic method”),
- use of the Internet and other information technology,
- online student/teacher forums, blogs, and chat rooms,
- student debates, either in groups or individually,
- games played in small groups or with the full class,
- journals in which students write about, and reflect on, issues or problems relevant to the course,
- creation of exam questions by students,
- review sessions led by students,
- writing assignments performed in class, such as one-minute papers in which students respond to a specific or open-ended question, or lecture summaries in which students write a summary of the day’s lecture near the end of class, and
- classroom response systems (clickers).

Although these techniques are clearly different from the traditional lecture where students sit passively while listening to the instructor, active learning techniques can be used in conjunction with, rather than replacing, lectures as a way of increasing student involvement in the classroom.

Research on active learning in accounting education is relatively new and scarce. This research generally can be divided into two categories: (1) description of a specific active learning technique used in a particular accounting course, and (2) experiments performed to assess the effectiveness of a specific active learning technique.

In the first category, most of the existing studies have focused on cooperative learning. Gabbin and Wood (2008) provide a thorough review of this literature in accounting education. Other studies have reported the use of student response systems or “clickers” (Cunningham 2008) and peer-reviewed writing (Matherly and Burney, 2009) in accounting courses.

In the second category, the general education literature has consistently found that the use of active learning methods leads to improvement in student achievement. For instance, in a meta-analysis of research on various cooperative learning methods conducted between 1970 and 1999, Johnson et al. (2000) reviewed 164 studies and concluded “all of the methods have substantial effect sizes and all of the methods have been found to produce significantly higher achievement than did competitive or individualistic learning.”

In contrast to the general education literature, the accounting education literature on the effectiveness of active learning techniques has been mixed and inconclusive, with some studies reporting an improvement in students’ academic achievement relative to the traditional lecture approach (e.g., Hwang et al. 2008, 2005) while others have reported no significant differences in achievement (e.g., Clinton and Kohlmeyer 2005; Gabbin and Wood 2008; Lancaster and Strand 2001). The reasons for the disparate findings in accounting compared with general education studies are unclear. Lancaster and Strand (2001) speculate that the differences could be due to several factors, including “fundamental differences” in the accounting discipline relative to other areas of study, limited use and newness of cooperative learning and other active learning methods in accounting education relative to other disciplines, and insufficient training of accounting educators in the use of active learning techniques.

Research Design and Evaluation Methods

Our study will focus on active learning techniques and technologies currently being used in accounting education in U.S. universities' colleges of business. Data for the study will be gathered using two Internet survey approaches – one for faculty and another for students – as described next.

The *Accounting Faculty Directory* published by Prentice Hall provides contact information for over 500 colleges and universities with accounting programs in the USA. We will use the *Directory* to compile an address book containing the email addresses of approximately 17,000 accounting educators in the U.S.

The survey instrument will begin with an *Informed Consent* page that includes an explanation of the purpose of the study. In the first section of the faculty survey, we will present participants a list of active teaching techniques and related technologies. Each participant will be asked to indicate which techniques/technologies they currently use and to indicate their perception regarding each technique's effectiveness in terms of enhancing student learning. The list of techniques/technologies will be based on published studies on active learning in accounting and other disciplines. Participants will be provided space to indicate other active learning techniques and technologies they use that are not included in the list provided.

In the second section of the faculty survey, participants will be asked to describe specific barriers they have encountered that have prevented them from making greater use of active learning techniques and related technology. The final section of the instrument will collect demographic information about each participant.

A separate survey instrument will be used to obtain students' perspectives and attitudes about various active learning methods. We will seek the participation of accounting students at the University of North Carolina at Charlotte and, to the extent possible, several other universities. The student version of the survey instrument will be similar to the faculty survey. The main difference will be that students

will be asked to indicate which active learning techniques and related uses of technology they have experienced in their university coursework and to indicate their perceptions of the effectiveness of those techniques in terms of improving the learning process.

Pilot tests of both instruments will be conducted at UNC Charlotte. Based on the outcome of these pilot tests, appropriate modifications of the instruments will be made prior to broad administration of the surveys.

Results of the surveys will be evaluated using a combination of descriptive statistics and multivariate analysis of variance (MANOVA). Descriptive statistics will be used when reporting faculty use of various active learning techniques and barriers to implementing active learning techniques. MANOVA will be used to identify any statistically significant differences in faculty's and students' ratings of the effectiveness of active learning techniques.

Knowledge Dissemination

Upon completion of the study, we will submit our findings for presentation or roundtable discussion at UNC Charlotte's Teaching Week during Fall 2011. We will also present the study's findings at a faculty research workshop in the Belk College of Business at UNC Charlotte. In addition, we will submit the study for presentation at regional and national academic conferences, including the American Accounting Association's mid-Atlantic regional meeting, the Southeast regional meeting, and the National meeting. Finally, we will seek to have the study's findings published in a high quality academic journal, such as the American Accounting Association's *Issues in Accounting Education*.

Human Subjects

As this study will involve human subjects, we will submit the proposed study for review and approval by the Institutional Review Board (IRB) at UNC Charlotte by completing and submitting the *Protocol Approval Application for Research with Human Subjects* in the near future.

Timeline

- November 2010 – Complete and submit *Protocol Approval Application for Research with Human Subjects* form to UNC Charlotte’s Institutional Review Board.
- December 2010 – Create email address book containing U.S. accounting faculty’s email addresses.
- January 2010 – Design and create faculty survey instrument.
- February 2010 – Design and create student survey instrument.
- March 2010 – Perform pilot tests of both survey instruments; modify instruments as needed.
- April/May 2010 – Conduct the faculty survey. Conduct student surveys at UNC Charlotte and other universities.
- June 2010 – Analyze the results of the faculty survey.
- July 2010 – Analyze the results of the student surveys.
- August/Sept 2011 – Complete the writing of the research paper; submit the completed paper for presentation at UNC Charlotte’s Teaching Week and academic conferences.

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