

THE CPA EXAM IS CHANGING: ARE PROFESSORS READY?

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Abstract

Accounting professors will now be accountable for teaching their students to think critically, analyze, and evaluate information. The pressure to change accounting higher education cannot be ignored with the new version of the CPA exam, released in April 2017, which now tests analysis and evaluation skills. Have professors made the changes in their classrooms that will help their students to be successful with this format of questioning? This research seeks to find whether professors have indeed embraced pedagogy that will enhance students' ability to develop higher order thinking skills. The study begins by explaining changes to the CPA exam and then provides a literature review of the accounting education process, traditional methods of teaching accounting, suggested methods of teaching accounting for enhancement of critical thinking, and identified reasons for resistance to changing teaching methods. The survey is designed to identify current teaching methods in accounting classrooms and seeks to discover what methods, if any, are being used to develop higher order thinking skills. The results show that lecture and demonstration of problems are still the predominant method of instruction in accounting classrooms, and these methods are not typically endorsed by research in terms of developing critical thinking, analysis and evaluation skills.

Keywords: Accounting education, CPA exam, teaching methods, critical thinking

Introduction

Accounting professors are being called to the task of educating the next generation of CPAs with much more than exposure to content. Professors' hands may now be forced to increase the ability of their students to think critically, analyze, and evaluate information on a much higher level than current graduates appear able to perform. The pressure to change accounting higher education can no longer be ignored with the introduction of the new version of the CPA exam, which occurred in 2017. With the new exam comes questions requiring analysis and evaluation that have never been tested. Will accounting students be ready? Have professors made the changes in their classrooms that will help their students be successful with this format of questioning? If not, professors and the graduate programs they represent will begin to lose the diligent students who research CPA exam rates when selecting graduate schools. The literature review that follows begins by explaining the need for the recent addition of critical thinking skills to the CPA exam. The review then explores studies by researchers who firmly believe and document why professors need to consider implementing additional pedagogical methods to help tomorrow's students become better at critical thinking, analysis, and evaluation. The research that follows the literature review seeks to find whether current accounting professors have indeed embraced pedagogy that will enhance students' ability to develop these higher order thinking skills.

Literature Review

Why Did the CPA Exam Change?

The American Institute of Certified Public Accountants (AICPA) began to research in 2014 what they considered would be relevant material for the next version of the “Uniform CPA Examination” (AICPA, 2016, p. 2). Their hope was to “ensure that the Exam remains current, relevant, reliable and legally defensible, and supports the profession’s commitment to protecting the public interest” and that it would provide “reasonable assurance . . . that individuals who pass the exam have the minimum level of technical knowledge and skills necessary for initial licensure” (AICPA, 2016, p. 2). To determine what the technical knowledge and necessary skills would be, the AICPA gathered information from “individual CPAs . . . , boards of accountancy, public accounting firms, individuals working in business and industry and academics, standard setters, regulators and review course providers” (AICPA, 2016, p. 2). The AICPA issued an Exposure Draft after finishing its research, and this draft received 80 comment letters with over “600 discrete comments for consideration” (AICPA, 2016, p. 2). As a result, the AICPA Board of Examiners “unanimously approved the final content, structure, and design of the Exam” in February 2016 (AICPA, 2016, p. 2). The first exam with the new structure was administered in April 2017.

How Did the CPA Exam Change? A Shift toward Higher Order Thinking Skills

The exam changes are comprehensive, but the most striking difference is the weight placed on higher order thinking skills (such as analysis and evaluation) as opposed to recall of content knowledge. Richard Gallagher, the AICPA’s director of exam content, told *Accounting Today* that the profession did not have any problems with the content of the exam, rather “[i]t’s how we approach testing that content” that changed by adding more “task-based questions [that] seek to more closely emulate what new CPAs would encounter when they first show up on the job” (as cited in McCabe & Cohn, 2016, p. 1). In an article by Tysiac (2016), Gallagher reiterated that memorization would no longer be enough to pass the exam. He stated, “In the past, maybe somebody who could memorize an entire book would do really well on the exam and not do so well when they showed up on their first day at work . . . This is looking to make sure that the candidates who are going into the profession are able to think and solve problems” (as cited in Tysiac, 2016, p. 4).

Michael Decker, AICPA vice president of examinations, stated in an interview with *Accounting Today* that “we’ve made the exam more practical, and it’s more applicable to the day-to-day of a business . . . I would want a hiring manager to say not only are new CPAs proficient in accounting and the content itself, but [that] they’re a strong employee . . . they work to apply what they know” (McCabe & Cohn 2016, p. 1). Decker further stated, “Newly licensed CPAs have to be able to assess situations and apply professional judgment. So it’s not just being book-smart, but the young CPA’s ability to apply that knowledge in completing tasks they will encounter as a newly licensed CPA” (Tysiac, 2016, p. 2).

According to the AICPA (2016), “the profession is demanding newly licensed CPAs to perform at a more advanced level earlier in their careers . . . driven in part by businesses’ and firms’ use of technology in delivering services” (p. 11). Tysiac agreed that “because of advances in technology and outsourcing of routine tasks, newly licensed CPAs increasingly need to use higher-order cognitive skills and professional skepticism while performing tasks such as planning and reviewing the work of others” (AICPA, 2016, p. 2). As a result of the increased demands on newly licensed CPAs, the AICPA’s (2016) research stated that “it is imperative that higher-order cognitive skills be tested” (2016, p. 11).

Based on the information gathering phase, the AICPA (2016) indicated that “respondents strongly supported increasing the assessment of higher-order cognitive skills” (p. 2) as well as “the inclusion of analysis and evaluation-level tasks and increasing the use of simulations that provide a more real-world experience and better assess higher order skills” (p. 2). These higher order skills include “critical thinking, problem-solving and analytical ability” (AICPA, 2016, p. 3). Input from the accounting profession strongly indicated that “it is critically important that newly licensed CPAs are competent in recognizing issues, identifying errors, challenging assumptions, and applying both professional judgment and skepticism” (AICPA, 2016, p. 4).

The AICPA (2016) chose to use a “skill framework based on the revised Bloom’s Taxonomy of Educational Objectives, ... [which] classifies a continuum of skills that students can be expected to learn and demonstrate” (p. 4). This continuum is first based on a broad base of content acquisition that students should be able to remember and understand. They should then be able to apply that knowledge to given situations to solve problems. At the next level, they should be able to analyze information, and finally they should be able to evaluate it. Bloom’s Taxonomy has been widely accepted as the way to measure critical thinking skills (Fowler, 2006). According to Fowler (2006), “most educators strive to ask questions that are structured around the higher scales of Bloom’s Taxonomy” (Related Research and Hypothesis section, para. 3). As a result, it is not surprising that the CPA exam has taken this approach as well.

The AICPA (2016) chose specifically remembering and understanding, application, analysis, and evaluation, and they connected these skills to tasks routinely performed by CPAs. Remembering and understanding as well as application are not new to the exam. However, analysis and evaluation are added with considerable weight given to them. All sections will have approximately 15 to 35% weighted on analysis skills, and the Audit section will have 5-15% weighted on evaluation skills (AICPA, 2016). With 75% being the passing benchmark, students must demonstrate analysis and evaluation skills on some of the parts of the exam to pass.

Specifically, the wording of questions will change to test higher order thinking skills as well as content. For example, to test one’s ability to remember and understand, questions might begin with Identify, Classify, Recall, or Define. A specific example would be: Define the concept of depreciation. To test application skills, questions would begin with the words, Calculate, Apply, or Solve. A specific example of application would be: Calculate depreciation of machinery acquired this year with a useful life of five years under the straight-line method of depreciation. To test analysis skills, questions would seek the students’ ability to Analyze, Examine, Reconcile, Deconstruct, or Infer. Continuing the depreciation example, a specific example of analysis would be: Analyze the depreciation table presented to determine if errors have been made in calculating depreciation over the last five years. Finally, to test one’s ability concerning evaluation, questions would ask students to Justify, Theorize, Critique, Conclude, or Assess. A specific example would be to ask students to assess the method of depreciation chosen by the client and determine if it is the most appropriate method to use considering the business’s current operations as well as to accomplish management’s initiatives and objectives. As one can see, the higher level of questioning represents a demonstrated deeper level of knowledge on the topic.

Will Students Be Ready? Problems Identified in Accounting Education

In 2011, the American Accounting Association (AAA) and the AICPA created the “Pathways Commission on Accounting Higher Education” to “study the future structure of higher education for the accounting professional and develop recommendations for educational pathways to engage and retain the strongest possible community of students, academics, practitioners, and other knowledgeable leaders in the practice and study of accounting” (Behn, Ezzell, Murphy, Rayburn, Stith, & Strawser, 2012, p. 595). They realized that “the amount and complexity of information accountants are charged with interpreting, processing, and reviewing, and reporting is continuously increasing” (Behn et al., 2012, p. 595). Due to these increased demands, they stated that future accountants need to “have an education commensurate with the challenges and responsibilities inherent in their work” (Behn et al., 2012, p. 596). These associations had control over the CPA exam, but they did not have total control of the preceding education for accountants.

According to Burke and Gandolfi (2014), “Today’s CPAs are more involved with businesses and individuals ... [and] handle a wide range of issues that are not addressed from an educational perspective” (p. 339). The AICPA’s *Practice Analysis* (2016) reiterated this concern stating that although “there was strong support for a shift to testing higher order skills in all Exam sections ... [there was] concern from the profession about candidate and educator preparedness” (p. 3). More specifically, many responses indicated a concern as to “whether educators have been adequately informed to properly instruct and prepare their students for the Exam” (AICPA, 2016, p. 11). In an interview with Marie Force (2016), Steve Albrecht made the following statement:

If you think about it, for years the way we have taught accounting is to use a textbook, lecture about the chapters and assign the problems at the end of the chapters. When the students couldn't work the problems, they looked for a similar example in the text and "copied" the answer, albeit with different numbers. What we really have been doing using this teaching method is teaching students how to copy. It's not surprising that when they find themselves performing audits, they do what we have taught them how to do—they copy last year's working papers. I'm sure it is not this bad at many schools, but there is far too much of this kind of teaching going on. (para. 8)

Turner, Reed, and Greiman (2011) make the argument that another reason accounting education should focus on critical thinking skills and other higher order cognitive skills is due to the constantly changing content for accountants to learn. They summarize the large number of changes in GAAP and GAAS over the most recent years as well as the constantly changing tax law. Turner et al. (2011) posed the question, "Will their tax education be out of date before the ink dries on their diplomas or they sit for the tax section of the CPA exam?" (p. 41). They suggest that many studies have "agreed that accounting students should be taught critical thinking and communication skills and ethics . . ." (Turner et al., 2011, pp. 41-42).

Johnson, Baird, Caster, Dilla, Earley, and Louwers (2003) conducted research seeking to find the "extent to which current auditing courses reflect the changes called for in critics of the accounting curriculum from both academic and professional sources" (Background and Literature section, para. 4). They examined college auditing course syllabi to find evidence of "emerging professional issues, critical thinking, oral and written communication, information technology, and unstructured problem-solving skills have been integrated into auditing education during the 1990s, as compared to earlier surveys of auditing course pedagogy and content [in 1987 and 1994]" (Johnson et al., 2004, Background and Literature Review section, para. 4). They concluded the following:

Professors have increased the use of cases, group activities, presentations, and writing assignments... [and] there has been an expansion in the coverage of fraud and technology-related topics, ... [however,] despite these advances, the evidence from current course syllabi suggests that change in auditing education is occurring more slowly and less comprehensively than the demands of both academic reforms and recent events affecting the profession would dictate...only a slight majority of courses incorporate higher learning activities. (Johnson et al., 2004, Summary and Implications for Auditing Education section, para. 1)

Friedlan (1995) noted that although many "successful practitioners are strong communicators . . . the syllabuses call for few, if any, written or oral presentations" (para. 2).

The Advisory Committee on the Auditing profession felt that a current exam would "encourage an updated curriculum" (Turner et al., 2011, p. 42). The exam changed in April 2017, but the question at hand is has the curriculum and the way it is taught changed as well? Continuing to teach as accounting professors have in the past may not be sufficient anymore. There are pedagogical methods that research has proven to be more effective in teaching the higher order thinking skills that the new CPA exam wishes to test. According to Schleifer and Dull (2009), the Accounting Education Change Commission (AECC) has challenged accounting educators to "reform the traditional approaches to teaching accounting" (p. 340) and for educators to "help students become independent learners and to develop their student's critical thinking skills" (p. 340).

Is Active and Experiential Learning Instead of the Traditional Lecture the Answer?

Much research points to active and experiential learning as superior when teaching students to think critically. According to Stephen Brookfield (2012) "asking questions is at the heart of critical thinking" (p. 195). Brookfield is not referring to rhetorical questions, which many lecturers use. He is referring to questions that require students to think and formulate an answer based on their experiences with the material at hand and sometimes combined with life experiences. Many faculty members are uncomfortable with asking these types of questions and waiting in silence for an answer. According to Brookfield (2012), asking questions "can be an unsettling, even rebellious act.

It disturbs both those being asked . . . and those in power” (p. 196). Brookfield (2012) conducted a study using a “Critical Incident Questionnaire that asked students to reply to five questions on a weekly basis during a class, and as a result of the study, five themes emerged “regarding how students learn critical thinking” (p. 55). These five themes included the following:

First . . . [critical thinking] is best developed in small groups where peers serve as critical mirrors shedding light on assumptions that have never been checked and introducing new perspectives that have not been previously considered. It seems that students experience critical thinking primarily as a social learning process. Second, they like it when teachers model the process and draw students’ attention to how that’s happening. Third, they find it helpful to ground critical thinking in concrete experience through case studies, critical incidents, simulations, and scenarios. Fourth, they stress that the most significant moments in critical thinking happen when some kind of unexpected event or idea jolts them out of their comfort zone, . . . disorienting dilemma. Finally, they view the trajectory of how they learned critical thinking as developmental. They prefer starting with multiple opportunities to practice critical protocols in settings that are relatively nonthreatening, before gradually applying this process to their own life and experiences. (Brookfield, 2012, p. 55)

Brookfield (2012) suggests above a plethora of ways to teach critical thinking. Only one of the themes above, modeling the process, leads itself to more of a lecture teaching style. Brookfield’s themes point to the need for a variety of teaching methods, including but certainly not limited to the traditional lecture. Giving students the opportunity to summarize what they have learned and apply it in social settings allows them to learn content on a deeper level and to be able to use the content more effectively. Asking questions that students must think about and be able to explain such as the following suggestions from Brookfield (2012) create an entirely different experience for the student:

- “Is there an idea or factor that you think has been deliberately excluded here?” (p. 202)
- “Can you give a different illustration of your point?” (p. 204)
- “What’s the most off-the wall illustration of your point you can imagine?” (p. 204)
- “What’s the piece of evidence you’ve got for your view that you feel most confident about? (p. 203)
- “What evidence would you give to someone who doubted your interpretation?” (p. 203)

As one can see, asking these types of questions changes the whole experience for the students. The student must be able to do much more than regurgitate an answer. They should know the material at a much deeper level in order to explain it to someone. Helping students develop this skill simply cannot be accomplished through a one-way lecture.

This type of critical thinking can only be accomplished if the students have done the preparation necessary outside of class to have a basic understanding of what will be covered. Most professors assume that students have not done that, and the majority probably have not. Professors would have to structure their class in a way to let students know they will only be successful with proper preparation outside of class. Students are accustomed to the professor lecturing over everything they will have to know so many students see no reason to do it on their own outside of class. If this is what they do, then there is not time for teaching critical thinking in class. The class continues the cycle. Students are unprepared because the teacher will cover the content completely for them, and the teacher covers the content because the students are unprepared. More meaningful learning can take place when this cycle is broken.

Brookfield’s comments about critical thinking make the natural transition to active and experiential learning as a method of developing critical thinking. Smith and Van Doren (2004) define active and experiential learning theory as a “reality based learning method” to improve “student learning, requiring the student to be co-responsible for learning, applied beyond the classroom, and transferable to future situations” (para. 1). Much research points to the fact that cooperative learning opportunities help students to be much more successful in accounting courses than just

lectures. Schleifer and Dull (2009) state that “since students need to comprehend text in order to remember it, study it, or use it for problem solving or decision making, the ability to comprehend plays an important role in many other cognitive activities” (p. 344). A study by Helleloid in 1989 and quoted by Schleifer and Dull (2009) “found that when students have available the correct answers during their self-study, they may experience the “knew-it-all-along” effect and make a metacognitive judgment to study less than they need to, resulting in poorer performance and overconfidence” (p. 345). Other research by Mevarech and Kramarski in 2003 and quoted by Schleifer and Dull (2009) showed that “problem solving in a cooperative learning setting, showed that metacognitive training enabled students to outperform those who followed worked-out examples without any metacognitive training. . . The results demonstrate the effectiveness of using metacognitive instructional methods in class” (p. 346). This research further points to the usefulness of giving students time to work problems in class with one another instead of simply following the instructor.

There are many specific examples of using active learning to enhance accounting education. Toerner, Swindle, and Burckel (2014) illustrate an example of how to teach students to think critically while conducting research using the FASB Accounting Standards Codification. They discuss how important it is to teach the students to use the code rather than assigning them a research project, sending them to find the relevant code information (which is often incorrect), and then grading an incorrect interpretation of that information. They propose classroom activities that help students to interpret code sections together and learn how to sift through the information and the Codification so that they can use it in the future (Toerner et al., 2014, p. 361).

Gregory Tapis (2016), a professor from Augustana College, recently took the CPA exam to become better at preparing his students for it. After undertaking this task, he stated that “knowing the material is insufficient for the demands of the CPA exam, particularly when it comes to the task-based simulations” (Tapis, 2016, p. 32). Tapis (2016) further states, “Thus, application and analysis must be demanded from students . . . I have students complete an exercise that involves the use of narratives of the accounting information systems process, [and] [u]sing these narratives allows me to integrate business process designs, control objectives, segregation of duties, and policies and procedures into one exercise involving application and analysis” (p. 31). He states that “My goal as an educator is not just teaching material but also teaching critical thinking and preparing students for lives as accountants” (Tapis, 2016, p. 32).

Tysiac (2016) summarized Gallagher’s comments concerning what accounting educators could do to help ensure students are ready for the exam. He stated that professors should consider “incorporating more case studies into their curriculum” because these case studies would be similar to the task-based simulations that will be on the next exam (Tysiac, 2016, p. 4). “Placing material into a real-life situation and asking students to solve problems will help prepare them for success on the exam and as professionals” (Tysiac, 2016, p. 4). Springer and Borthick (2004) conducted research that demonstrates that “the business simulation approach . . . gives students opportunities to begin practicing the higher-level thinking that business and the accounting profession demand” (Outcome: A Constructive Approach to Introductory Accounting section, para. 1). Wilkerson (2010) suggests that accounting education should go well beyond the case study approach to “significant clinical learning experiences as part of their accounting studies” (p. 1).

Brookfield (2012) further suggests that the way professors set up classroom rewards play into the development of critical thinking in class. Brookfield (2012) suggests participation as a part of the grade and the following examples of items on it:

- “Ask a question or make a comment that shows interest in another’s thoughts” (p. 170)
- “Ask a question that encourages someone to elaborate” (p. 170)
- “Bring in resources that add to the discussion” (p. 170)

The above literature clearly ties certain types of classroom activities to developing critical thinking.

What Can Be Done?

As mentioned above and according to Russell, Kulesza, Albrecht, and Sack (2000), one of the significant problems for accounting education is skill development. They state, “The current educational models focus too much on content at the expense of skill development – skills students need to become successful professionals” (Russell et al., 2000, p. 9). According to Gabbin (2002), “the academic culture is inherently resistant to major changes,” (p. 83) and “in general, tends to resist major curriculum shifts” (p. 82). Program quality of accounting academic departments has been largely based on “enrollment trends, number of students hired by major firms, starting salaries and anecdotal testimony of alumni, campus recruiters and employers” (Gabbin, 2002, 82). These aspects are all much more reactive than proactive. They are based on feedback about recent successes, but they are not also considering the changing business landscape.

Gabbin (2002) suggests that CPA firms should be proactive because “reactive firms—those that respond to change only when forced—don’t survive in highly competitive markets” (p. 82) and that academic departments should learn this strategy as well. Gabbin (2002) discusses “13 programs that distinguished themselves . . . [by] abandoning curriculum traditions that were inconsistent with new technology and the needs of stakeholders” (p. 83). Some of these “developed entirely new approaches to accounting education delivery and content” (Gabbin 2002, p. 83). Gabbin (2002) describes some of these program changes as follows:

They now use textbooks as only one of several resources rather than as the major driver of course content. Faculty simulate the real-world business environment with case analyses, computer searches for company and industry data and classroom discussions of issues from a business cycle perspective. These programs place heavy emphasis on cooperative learning, field trips and interaction with accounting practitioners. (p. 83)

These programs have the assessment information such as enrollment trends and employer and alumni surveys to support their comprehensive changes (Gabbin, 2002). Russell et al. (2000) state that “the business world has changed dramatically while accounting education has not” (p. 8). They discovered six significant issues accounting education faces, three of which were faculty development and reward systems, pedagogy, and skill development. They highly suggest that accounting departments should evaluate many things including the degrees they offer, curriculum, course content, pedagogy, and investing in faculty development (Russell et al., 2000, p. 11). Of particular note, Russell et al. (2000) found that “the most critical element in a student’s successful classroom experience is an inspiring professor” (p. 9).

In the accounting profession, there has always been a disconnect between what practitioners do, what research says, and what and how educators teach. In most fields, the research drives both the practice as well as the teaching. However, academic accounting researchers do not seem to have the influence on accounting practice in the same way. Van Wyhe (2007) asks the question, “Can accounting education ever be transformed into something that truly enhances and enriches the profession?” (p. 498) He paints a dismal view stating the following:

Sadly, a study of history does not encourage any such hope . . . the AICPA’s efforts to require 150 hours were not followed with an equal emphasis on an effort to improve education. Can real reform come from some other place? The business school deans of the AACSB have never shown any serious interest in improving accounting education for the sake of the profession. Accounting academicians are in many instances rewarded for research more than for teaching. (Van Wyhe, 2007, p. 498)

However, the newly structured CPA exam can be the stimulus that changes everything about the classroom. If the test is designed to incorporate the latest GAAP and to test the content in the way practitioners want their new employees to perform in their careers, then educators must respond and make sure they are not only teaching the content, but also teaching students the critical thinking skills necessary to be successful both on the exam and in their career.

It is this concern that this research project intends to investigate. Has the accounting educator made changes in the classroom to help students develop critical thinking skills so they are prepared for success on the new exam, and even more for success in the world of accounting that they will soon enter? Previous research points to several active learning techniques that develop critical thinking. My belief is that professors have not made many changes from traditional teaching methods in the classroom yet, and my fear is that many CPA candidates will not be prepared.

Methodology and Data Collection Process

The objective of this study is to determine whether accounting professors are currently using teaching techniques that will enhance the development of higher order thinking skills for accounting students. The objective is important and timely because the CPA exam changed in 2017, and it now tests higher order thinking skills as well as content. The researcher designed a survey in SurveyMonkey to identify current teaching methods in accounting classrooms at universities in the southeast U.S. These states included Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. This region was chosen primarily due to the interest of the researcher to see how peer institutions in her region were approaching pedagogy. The survey was tested with a graduate assistant, and in the fall of 2016, the survey was distributed to all accounting faculty listed on the websites of the three largest public universities in each state of the Southeast United States. The survey sought to discover what methods, if any, are being used to develop higher order thinking skills, which will be tested on the new version of the CPA exam beginning in 2017. The survey results were completely anonymous. In total, 558 surveys were distributed through e-mail. Nine of these addresses were returned so only 549 were actually delivered. Of the surveys delivered, 69 surveys were answered giving a 12.6% response rate. However, a little more dismal is that the average response rate per question was approximately 44, which may not be surprising due to the subject matter at hand. The topic could be sensitive if professors have not changed their teaching methods and feel as if they possibly should. Since the response rate to the survey was low, overall generalizations and further statistical analysis was not inferred. However, the data gathered is not without significance and was analyzed in two ways. First, a summary report of overall responses to each question was run in SurveyMonkey and used to develop the frequency tables located in the appendix and analyzed in the results section of this article. Second, individual responses to each question were analyzed to gain the qualitative information that truly gives meaning to this research especially considering the low response rate.

Results and Interpretation

A copy of sample questions from the survey is available in Appendix A. The majority, but not all of the questions on the survey were used in the final results of the paper. The results of the survey were interesting and gave some insight into why some professors choose the methods they use. These qualitative remarks in the survey convey the value added by this study.

The first question in the survey sought to identify how the professors had been taught when they were in school. The reasoning behind asking this question was theory that professors tend to at least start teaching with the method they were taught by. The results are displayed in Table 1.

By far, 88.9% (40) of respondents stated that lecture and problems worked by the teacher (40) were how they were taught accounting in their studies. If humans by nature are somewhat resistant to change, this statistic lays the groundwork for how one would predict professors would continue to teach.

The next few questions dealt with how long the professors had taught and when they last changed their teaching methods, if indeed they had ever changed their teaching methods. Table 2 contains the results from this question. The majority of professors, 25 of the total 40 respondents, who have changed their teaching methods indicated that they changed their teaching methods within the last five years, and 12 of those had been teaching for 16 years or more. This result tends to defy the common assumption that older and more experienced teachers are less likely to change teaching styles. Another 5 respondents indicated that they had changed their teaching styles at some point in

time between 11 and 21+ years ago. Therefore, a total of 30 respondents had changed their teaching methods at some point in time. Another five respondents indicated that they plan to change their teaching methods. Only five respondents marked that they have not changed their teaching methods and do not plan to do so. Those responses could not be solely tied to any length of teaching experience.

The researcher then sought to know why professors had or had not changed their methods of teaching. Table 3 presents the results as to why some professors have chosen not to change their methods. Of the nine who had never changed their teaching methods, four marked that they believed the way they taught was effective already, and three responded that they would like to change their methods, but there was not enough time due to research activities required for tenure. The two “other” comments were as noteworthy:

- “While my methods have not changed substantially (rather than due to available technology) the content of my course has changed significantly to address recent changes in the profession and the business world.”
- “I would like to change methods, but it is difficult if the majority of professors are not teaching critical thinking.”

The first statement is interesting in that it indicates an interest and reaction to the recent changes to the profession. The last statement is noteworthy and indicative of something many professors may believe but feel powerless to change. It alludes to the idea that it might take an accounting department-wide initiative for many faculty members to change their styles. This statement is an example of the points made by Russell, Kulesza, Albrecht, and Sack (2000) concerning pedagogy, skill development, faculty development, and faculty reward systems as significant issues facing accounting education. Further research would be necessary to have a more definitive conclusion on this point.

The next question focused on those who responded that they had changed their methods in the past 5 years. The question focused on why they had chosen to change methods. Table 4 shows these results. There was a total of 40 respondents to this question, but the number of responses is larger because respondents could choose multiple reasons why they had changed teaching methods. Since seven responded that they had not changed their teaching methods, one would assume that 33 answered the other choices given and chose more than one answer. Based on the changes in outcomes needed for accounting students, one would hope to find teaching methods that encourage critical thinking in the responses to this question. However, only 12 responses indicated that they had done so to make sure students are using higher order cognitive skills. Another 23 indicated that they wanted new ways to engage the students. These responses may not be mutually exclusive. According to research by Brookfield (2012) presented earlier in the literature review, pedagogy styles that enhance engagement in the classroom also increase the ability to increase higher order thinking skills. The following two comments to this question were particularly noteworthy.

- “I changed my methods when the CPA exam eliminated the essay portion on regulation. I switched to task-based simulation.”
- “We received a grant that required the change. As it turns out, I like the new methods.”

The first statement indicates that CPA exam format changes can and do drive teaching methods. The second comment again indicates that it may take the accounting department leadership to embrace and encourage change in pedagogy if it is going to happen. Most people do not like the change process; however, once faculty give it an opportunity to work in their classrooms and witness its effectiveness, they may like it.

The next few questions asked professors to rank the teaching methods they use in class, and then to elaborate on why they prefer the item they selected as the number one method. In the previous question, 35 respondents stated that they had changed their method in the last five years to increase higher order thinking skills (12) or to increase student engagement in the classroom (23). As a result, one would hope to see an increase in methods presented in the literature review as more commonly associated with developing critical thinking skills such as debates, current business article discussions, case studies, problems worked in groups or in class. One would also expect a decrease in more passive methods such as lecture only or lecture and problems solved by the instructor. The results of this

question were the contrary. The numerical results for the first two methods most used, the two methods least used, and methods never used are represented in Table 5.

Of the 44 respondents to this question, 35 (80%) chose lecture as their number one or number two method used and 30 (68%) chose demonstrating problems as their number one or number two method. Only 1 out of 44 respondents stated that lecture was never used in class. Of the 43 respondents that use at least some lecture, 22 of these respondents stated it was the number one method used and another 13 indicated it was the 2nd most used method. This is not unusual as lecture, at least in some form, is almost essential for at least a partial amount of course material to be presented. 30 responses indicated that demonstrating problems in class was the number one or two method they used in class. Although forms of lecture and working problems for students may be used in active learning, they are generally a more passive approach to learning. Neither of these methods is generally linked to engaging students or in helping them to learn to think critically.

The qualitative information learned from these responses is the most useful information gleaned from this research. Those who marked lecture as their number one method used indicated the following reasons for doing so:

- Is most efficient. My knowledge is what students pay for with their tuition.
- I teach a graduate tax class – there is a lot you have to teach them
- Large classes (over 150 each section)
- Path of least resistance
- Knowledge transfer - explaining the material in more detail and with examples.
- Ability of on-the-spot evaluation of student comprehension
- Best method for basic content delivery
- Good for lower level classes where average student has not prepared for class.
- It is a core financial accounting class, so we start with me explaining things through lecture
- To assure the topic is covered
- Lecture delivers the most amount of material to be covered.
- I am teaching undergraduates about the law, which is new material for them.
- I teach auditing--a course still suited for lecture. But, very little of the class is actually lecture. It is a combination of discussion and with some problem solving worked in.
- Efficient and useful
- Students need conceptual understanding of accounting concepts. I think lecture best accomplishes that.
- Large class size
- I use lecture to convey information to students.
- Mostly to convey fundamental concepts to undergraduate students

Those who chose the second most used method, demonstrate problems in class, indicated the following reasons for using it:

- Seems to be the most effective
- Working on problems lets you reinforce lecture, guides students in the process of completing problems, guides students in the process of thinking about the problem and applying concepts, lets me demonstrate technology, and gives students the opportunity to ask questions about what they do not understand. One student is designated as my assistant on the problems I work through so I also get an understanding of what students know and don't know.
- Helps the students better grasp the concepts by seeing an actual problem worked out, step-by-step.
- So I can demonstrate what I think is the best approach to a problem.
- Allows discussion of details and integration of lecture with an actual context
- Best way to introduce students to cost accounting methodology
- Teach and demonstrate
- I think students benefit greatly from seeing the problem solved correctly. I try to verbalize the correct thinking as I demonstrate.
- Interactive, engages the students.

- It is what students will do for exams
- I have essentially flipped the classroom...I require students to read the topic and answer questions for homework grade before coming to class where I demonstrate how the problems are developed. This method ensures they have read the material. I don't lecture any longer.
- It's tradition in intermediate.

Based on the above comments, one can see some themes emerge as to why lecture and demonstrations are still the most used teaching method. Large class sizes, tradition, coverage of material, efficiency are all words found multiple times above. These themes indicate once again the reluctance of accounting education to change the significant issues of pedagogy, skill development, and faculty development discussed by Russell, Kulesza, Albrecht, and Sack (2000). Perhaps addressing these items within accounting departments would help to increase the use of teaching methods more commonly tied to student engagement and critical thinking. Many professors know that analysis activities are more difficult in large classes. Departments may need to ask critical questions concerning how large the class size should be if critical thinking and analysis skills are to be more fully developed. Of course, the reduction of class size costs the department more money in terms of more course sections and possibly more faculty to staff them. The department would have to make the case for this need. Also, many professors speak of the lecture as if it is the only way to teach the material, while literature points to many other methods that help students learn. Faculty development in other pedagogical methods must be enhanced, embraced, and rewarded by accounting departments before true change will take place. Furthermore, professors must realize that topics covered is not the equivalent of topics learned.

Many other methods that are tied more strongly by research to enabling critical thinking and analysis development were chosen by very few professors as the number one method used in comparison to lecture and demonstrating problems in class. However, the few who used different methods stated interesting reasons as to why they chose different methods, and those reasons seem to support the literature review of the result of actively engaging students in their learnings. Comprehensive projects in class was chosen by one professor as the number one method because "It engages the students the most and gives them the most long-term understanding." Class discussion of current business articles and ideas was chosen by another professor because "For graduate students in particular, they need to be communicating their thoughts to others." Allowing students to work problems in class was chosen by one professor because "They get it better when they do it." Presentation by students was chosen by another professor because "it encourages independent research and thinking." Group work was chosen as the number one method by two professors. They indicated that "students learn best by doing" and "the activities demonstrate the students completed that out of class assignment." Case analysis and discussion was chosen as the number one method by two other professors who indicated "it works" and "higher level of thinking."

Interestingly, one should take special note of the number of responses to the methods never used. Of the 44 respondents, 19 (43%) never used comprehensive projects in class, 11 (25%) never used case analysis and discussion, 12 (27%) never used presentations by students, and 17 (39%) never used debates. These percentages increase if you combine them with the method least used in class.

The next question concentrated on how students are allowed to work problems in class, if indeed they are allowed to do so. The results of this question are located in Table 6. Of the 43 respondents, six of the respondents work all problems for the students. Another six require the students to work through the problems individually. The remaining 31 respondents allow the students to work them in groups or individually and then in groups. This finding is more consistent with active learning techniques indicated in the literature review above.

The next few questions switched focus from method of delivery to the design of the course grade based on components of overall student grade, types of questions on exams, and types of questions on homework. The reasoning behind these questions was to identify what weight or emphasis is or is not placed on that questions posed to students that ask them to analyze, evaluate, judge, or demonstrate encourage the student to use higher order thinking skills whereas simple number answers with no explanation show the students' ability to remember and apply. Table 7 shows the results to the question concerning the components of the students' overall grades. Exams

make up the majority (over 50% of the grade) for 30 respondents, and quizzes, homework assignments, and projects made up 50% or less of the grade for 94 combined responses.

With exams making up the majority of students' grades, it is interesting to note that the components of the exams broken down as follows in Table 8. The following results from this table are noteworthy:

- Multiple choice questions on concepts were used at least for 20% of the exam by 43 respondents.
- Multiple choice questions as a result of working a problem were used at least for 20% of the exam by 38 respondents.
- Matching concepts were used for at least 20% of the exams for 22 respondents.
- Working problems without a possible result given were used for at least 20% of the exams for 34 respondents.
- Essays were used for at least 20% of the exam for 18 respondents.

Table 8 further illustrates that the use of essays where students must explain their judgments or analysis are used the least on exams. However, working problems without a possible result given does indicate the possibility of application and some analysis. Multiple choice questions where students can come close and recall rather than explain were used most.

The next question sought to find out what types of homework are required for classes. The reason for this question in Table 9 shows that homework requiring explanation or justification of the answer made up much less of the homework assigned than homework which required a number answer only. Noteworthy results from this question included that open-ended questions more often made up 0-25%, while number answer only or number answer with explanation were more likely to make up more than 25% of the answers required.

By combining the data in Tables 7, 8, and 9, the following conclusions can possibly be inferred: The majority of homework requires number answers only, tests make up the majority of grades in classes, and the majority of questions on tests are multiple choice on concepts and problems. These three items do not indicate an emphasis on teaching or demonstrating higher order thinking skills.

Further questions asked professors to rank their teaching methods and questions assigned to students according to what subject they teach. A flaw in the research design left out Accounting Information Systems and Regulation as specific accounting subjects, and professors who teach in that area responded with comments. Table 10 and Table 11 show the results of this research. This data is particularly enlightening when compared to the summary blueprint published by the AICPA in 2016, depicted in Table 12 which indicates the skill allocation and weight assigned to test questions according to CPA exam section.

If one compares the weights given to skill demonstration on the CPA exam to the method being used by course, one can see that students in some areas may not be well prepared by their current courses. For example, the Audit section of the CPA exam is the only section that will have any weight placed on evaluation. However, the most used teaching method in audit is still currently lecture, and the least used type of question posed in these audit courses is essay where a student must explain and evaluate a situation. On the other hand, the use of case studies as the number one type of question that audit students must use for class may be helpful with the analysis, application and remembering parts of the audit section.

The REG section of the exam may also give students some difficulty. This section has the addition of analysis types of questions comprising 25-35% of the exam. However, the number one teaching method being used in tax is still lecture and demonstrating problems, and application problems is the most used type of questions posed to tax students. Analysis questions did at least tie with multiple choice questions on concepts for the second most used type of question posed to students. Compare/contrast questions were the least used. As a result, students in tax classes may not be developing the analysis skills that will be tested on the exam.

The FAR section also includes analysis questions for the first time, but lecture and demonstrating problems are the most used teaching methods in class, and application problems and multiple-choice questions on concepts are the most used types of questions posed to financial accounting students in class.

These results are helpful to professors as they look at the new exam and the emphasis placed on skill building as well as content. When broken down by discipline, one can see that there may need to be a shift in the types of delivery and types of questions students must encounter in order to be fully prepared for the exam. In order to build their ability to evaluate, students must be asked to justify, theorize, critique, conclude, and assess. These types of answers can rarely be found in multiple choice questions. Students must write to explain and demonstrate these abilities. This ability will be particularly important for the audit courses since the Audit portion of the exam will now cover them. To build students' ability to demonstrate analysis skills, students must be asked to analyze, examine, reconcile, deconstruct, and infer. More questions must be posed to students in all accounting areas using these types of assessments because all of the sections now have analysis as a component.

Another question concerned what professors believed that a successful student should be able to demonstrate in their class. Professors could mark all that applied. The results are shown in Table 13. Content acquisition was the number one response. However, the ability to think critically and the ability to analyze data received relatively high responses as well. Professors appear to believe that higher order thinking skills are important, but based on the other comments regarding teaching methods used and types of questions posed, they may be unable to make the link as to how to teach them. Reasons could vary for this lack of ability such as time management between committee work, research, and teaching responsibilities. Also, importance of teaching in the overall professor evaluation may be less weighted in comparison to other duties. Unfortunately, many accounting departments have not made incorporating other methods of teaching in accounting classes a priority, and therefore, minimal change has occurred to help professors learn how to teach higher order thinking skills to their students. However, if student alumni CPA exam pass rates begin to decline, higher administration may force departments to address this issue. Ideally, departments would make faculty development in teaching critical thinking skills a priority without being forced to do so.

A final open-ended question was posed to professors asking them if they could make one change to the accounting curriculum at their college, what it would be. Some noteworthy comments included the following:

- Faculty would embrace the challenge of helping student to develop a growth mindset in which thinking skills are emphasized in addition to content acquisition.
- We have been pretty active at changing the curriculum as needed for example we have added required analytics courses at both the undergrad and graduate levels
- No multiple choice questions
- I would have an introduction to data information and technology be the first accounting course
- Additional communication and critical thinking activities
- Add more analytics, which we are doing.

These comments show that some professors are beginning to become aware of the need to increase students' abilities to analyze and evaluate information.

Limitations

Of the 549 surveys delivered, 69 surveys were answered giving a 12.6% response rate. Furthermore, questions were only consistently answered by 44 respondents. Although the low response rate is disappointing, it may not be surprising due to the subject matter at hand. However, the qualitative information gleaned from this research is still insightful despite the low response rate. Future studies might be able to capture a wider range of responses across the United States as well as across smaller private schools. Community colleges were not considered in the research because they provide only the first two years of college experience. However, it might be interesting to see what community college data would show as the primary mission of their faculty is teaching instead of research.

A few other weaknesses in the study occur in the survey. Originally, the survey asked professors to indicate the level of the accounting course (sophomore, junior, senior) taught for which they were answering the survey questions. This question was eliminated, but in hindsight, the question would have provided very insightful data on the skills being emphasized at different levels along the curriculum. Future studies should investigate the culmination of the skills taught over the span of the curriculum. Another weakness in the survey was that in many of the survey questions, lecture was identified as a teaching method; however, there are variations of lectures that were not identified unless the responders indicated so in their opportunities to comment. The survey could have been enhanced by providing various types of lectures as choices. A final weakness in the survey occurred in the question regarding if teaching methods had been changed, and if so, when. This question could have been expanded to ask exactly how the methods had been changed and more qualitative information could have been gleaned from these responses.

Suggestions for Improvement and Further Research

The AICPA has listed on its website sample teaching strategies and techniques for accounting courses that can help develop higher order thinking at the following link: <http://www.aicpa.org/InterestAreas/AccountingEducation/Resources/Pages/sample-teaching-strategies.aspx>. It also has several noteworthy tools and ideas that can be immediately incorporated into the accounting classroom sorted by a variety of topics. Professors need to realize that they are the ones responsible for the exposure to and development of students' ability to use and develop higher order thinking skills. This is the area where they can add real value to students who can read and memorize material on their own. Helping students develop these skills is where professors can prove their value as they teach students to think about topics in a whole new way on a much deeper level.

Unfortunately, professors also need to realize that if they do not embrace this responsibility, their students' pass rates may suffer, and they may be ultimately accountable for it. If pass rates fall, diligent students who ask about pass rates when searching for a program (let's face it, the ones that all professors would want in their classroom) will choose other accounting programs. Department Chairs must may need to make pedagogy a priority in their budgets and evaluations if they are going to see their faculty embrace it. Further research could be done on how to motivate faculty to change as well as a sampling of quick and easy methods to get professors started in this line of thinking. Understanding why faculty have not changed their teaching styles and how accounting departments can make changes necessary to assist their faculty in helping their students succeed would be valuable information. Further research could also be done by looking at a larger sample that encompasses the entire United States. Moreover, graduate versus undergraduate accounting pedagogy methods would also be interesting.

Conclusion and Implications for Accounting Education, Practice, and Society

The research conducted in this study points to the possibility that lecture and demonstration of problems are still the predominant method of instruction in accounting classrooms, despite the literature review which demonstrates that these methods are not typically endorsed by current research in terms of developing critical thinking, analysis and evaluation skills. Employers in accounting practice have begged educators to send them students with these skill-sets in addition to content knowledge. The AICPA has changed the CPA exam in acknowledgement of employers' requests for these skills and now is designed to ensure that successful exam candidates can perform these skills. However, based on this study, many accounting faculty do not appear to have embraced methods to help students develop critical thinking, analysis, and evaluation skills and offer interesting comments as to why they continue to predominantly use lecture and problem demonstration to cover content. Unfortunately, content covered is not the equivalent of content learned.

The implications in this study for accounting education are many. Because many programs pride themselves on the exam pass rates of their graduates, changing the exam may indeed be the game changer for educators in that they will have no choice but to change their methods if they want to help students build skills necessary to be successful both on the exam and in their careers. Now that the exam has changed, accounting faculty in higher education

programs must increase their ability to teach critical thinking in order to continue to attract students who are pursuing a career in accounting because these students seek out programs that will help them to prepare for the CPA exam and their career.

The qualitative remarks from this research indicate that accounting departments need to help their faculty to pursue new methods of teaching higher order thinking skills. Class sizes, faculty development, and faculty reward systems are topics that accounting departments must address soon to ensure their programs stay competitive with students who pass the exam and succeed in their careers.

Resources are available to help accounting faculty change their teaching methods. The AICPA *Practice Analysis* (2016) addressed its concern for students and educators by developing a blueprint outlining the different topics that would be assessed and the skill levels that would be tested. Furthermore, it stated that “AICPA staff and volunteers have been making presentations to various state and society educator symposiums as well as at American Accounting Association meetings” (AICPA, 2016, p. 12). During these presentations, numerous professors stated that they are using a case study or other non-lecture format as part of their curriculum, indicating that many colleges and universities already have moved to an instructional model that would help to develop higher-order cognitive skills” (AICPA, 2016, p. 12). The AICPA (2016) also stated that there will be continuous presentations to help with “ongoing curriculum development” (p. 12).

The accounting educator needs to look forward to a changing future and realize the important role they play in it, and as a result, the time to re-examine our teaching methods and curriculums is now. Wilkerson (2010) states that educators have an obligation to their students, to the profession, and to society as a whole, and we fulfill this obligation through our on-going learning and research as well as “through our teaching” (p. 4). It is our responsibility as educators to ensure that we are sincerely preparing our students for the journey they are planning to embark on as certified public accountants, and that journey includes much more than recalling facts and figures. Our students will remember much more about how we taught them to think than they will the actual content they learned or memorized at the time they spent with us in class. Teaching them to look further into the material, to question, to make inferences, and to make judgments is our value added as their professors based on years of practice.

If the results of this study are embraced by higher education accounting, the implications to accounting practice and society are positive. Accounting practices will benefit from students prepared to adapt quickly to changes in law and technology as they are more able to work through the problem-solving process and find the solutions necessary to solve the problem at hand rather than looking for a past workpaper to show them how. Students trained in critical thinking skills will be able to find, analyze, and evaluate the information they need to derive solutions to benefit their clients and their companies. Society will benefit from the enhanced competence of the next generation of accountants who are trained to ask more insightful and meaningful questions, leading to solutions that are looking to the future rather than simply based on methods seen on prior workpapers.

In closing, educators should consider Wilkerson (2010) who believes that if we do not use our roles as educators to help “preserve its status as a profession” (p. 12) by preparing our students as professionals, “the accounting profession faces the very real risk of further erosion of public trust and we face the same dire prospect under the terms of our social contracts as accounting educators” (p. 12). According to Russell et al. (2000), “The time to change just to be better is past. In fact, we must transform our educational programs merely to survive” (p. 5).

References

- American Institute of Certified Public Accountants (AICPA). (2016). Practice analysis final report maintaining the relevance of the Uniform CPA Examination. Available at: http://www.aicpa.org/BecomeACPA/CPAExam/nextexam/DownloadableDocuments/2016-practice-analysis-final-report.pdf?cm_em=steadman@etsu.edu&cm_mmc=AICPA:CheetahMail--NewsUpdate--APR16--Special_CPAExam_NewsUpdate_A16AP11
- American Accounting Association (AAA) and American Institute of Certified Public Accountants. (2012, July). *The pathways commission: Charting national strategy for the next generation of accountants*.
- Behn, K. B., Ezzell, W. F., Murphy, L. A., Rayburn, J. D., Smith, M. T., & Strawser, J. R. (2012). The pathways commission on accounting higher education: Charting a national strategy for the next generation of accountants. *Issues in Accounting Education*, 27(3), 595-600. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/1037804355?accountid=10771>.
- Brookfield, S. D. (2012). *Teaching for critical thinking: Tools and techniques to help students question their assumptions*. San Francisco, CA: Jossey Bass.
- Burke, M. M. and Gandolfi, W. R. (2014). U.S. accounting education: Misalignment with the needs of small and medium companies. *American Journal of Business Education (Online)*, 7(4), 339. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/1613024797?accountid=10771>
- Force, M. S. (2002). Authors of accounting education study reflect on current state of education, professional satisfaction. *The Journal of Government Financial Management* 51(3), 8-9. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/222373116?accountid=10771>
- Fowler, L. (2006). Active learning: An empirical study of the use of simulation games in the introductory financial accounting class. *Academy of Educational Leadership Journal*, 10(3), 93-103. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/214230618?accountid=10771>
- Friedlan, J. (1995). Steeped in tradition. *CA Magazine*, 12844-47.
- Gabbin, A. L. (2002). The crisis in accounting education. *Journal of Accountancy*, 193(4), 81-86. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/206764927?accountid=10771>
- Johnson, E. N., Baird, J., Caster, P., Dilla, W. N., Earley, C.E., & Louwers, T. J. (2003). Challenges to audit education for the 21st century: A survey of curricula, course content, and delivery methods. *Issues in Accounting Education*, 18(3), 241-263. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/210902247?accountid=10771>
- McCabe, S. and Cohn, M. (2016). AICPA plans revamped CPA exam. *Accounting Today* (April 4). Available at: http://www.accountingtoday.com/news/firm-profession/aicpa-plans-revamped-cpa-exam-77686-1.html?utm_medium=email&ET=webcpa:e6439823:5001600a:&utm_source=newsletter&utm_campaign=daily-apr%205%202016&st=email
- Russell, K. A., Kulesza, C. S., Albrecht, W. S., & Sack, R. J. (2000). Charting the course through a perilous future. *Management Accounting Quarterly*, Fall, 4-11.

- Schleifer, L. L. F., & Dull, R. B. (2009). Metacognition and performance in the accounting classroom. *Issues in Accounting Education*, 24(3), 339-367. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/210916327?accountid=10771>
- Smith, L. W., & Van Doren, D. C. (2004). The reality-based learning method: A simple method for keeping teaching activities relevant and effective. *Journal of Marketing Education*, 26(1), 66-74. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/204451767?accountid=10771>
- Springer, C. W., & Borthick, A. F. (2004). Business simulation to stage critical thinking in introductory accounting: Rationale, design, and implementation. *Issues in Accounting Education*, 19(3), 277-303. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/210923990?accountid=10771>
- Tapis, G. (2016). 'Why are you not a CPA?' *Journal of Accountancy*, 221(2), 28-32.
- Toerner, M. C., Swindle, C. B., & Burckel, D. V. (2014). Teaching undergraduate accounting majors how to interpret the accounting standards Codification: An alternative to research cases. *American Journal of Business Education (Online)*, 7(4), 361. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/1613024844?accountid=10771>
- Turner, K. F., Reed, R. O., & Greiman, J. (2011). Accounting education in crisis. *American Journal of Business Education (Online)*, 4(12), 39. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/1418437245?accountid=10771>
- Tysiac, K. (2016). What will be tested on the next CPA exam? *Journal of Accountancy* (April 4). Available at: <http://www.journalofaccountancy.com/news/2016/apr/new-cpa-exam-201614166.html>
- Van Wyhe, G. (2007). A history of U.S. higher education in accounting, part I: Situating accounting within the academy. *Issues in Accounting Education*, 22(2), 165-181. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/210927322?accountid=10771>
- Wilkerson, J. E. Jr. (2010). Accounting educators as the accounting profession's trustees: Lessons from a study of peer professions. *Issues in Accounting Education*, 25(1), 1-13. Retrieved from <https://login.iris.etsu.edu:3443/login?url=http://search.proquest.com/docview/210916438?accountid=10771>

Appendix

Sample Questions from Survey

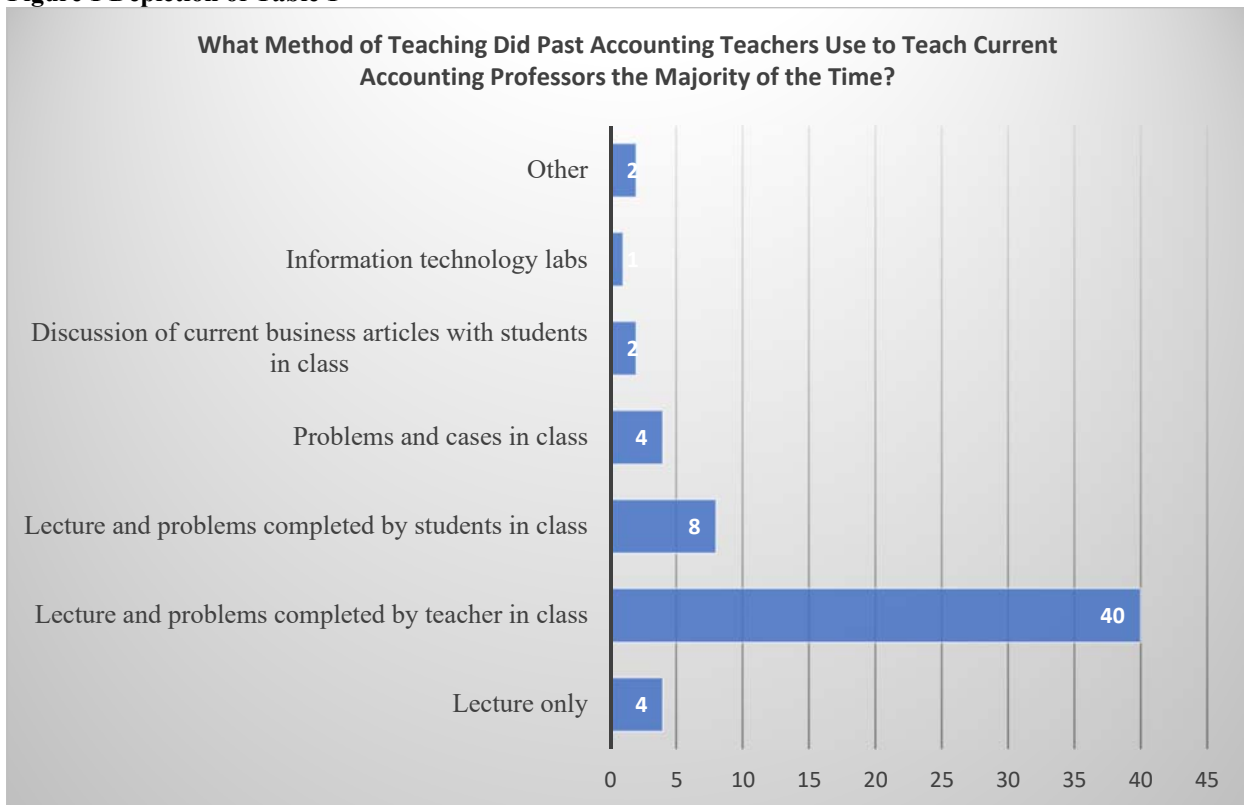
2. When you were an accounting student in college, what method of teaching did your accounting teachers use in class the **majority** of the time?
3. Please choose the column that indicates how long you have taught accounting at the university level, and then please choose the row that indicates when you last changed your teaching method.
4. If you have never changed your methods, please indicate why? Please mark all that apply.
5. If you have changed your methods in the last 5 years, why did you change them? Please mark all that apply.
6. Rank the teaching methods below in order from the ones you spend the most class time on to the ones you spend the least class time on. For example, you would assign a 1 to the method you use the most, and you would assign possibly a 12 to the one you use the least. If you never use a method mentioned, please mark N/A.
7. Why? Answers in table on separate document
8. If you give students time to answer questions in class, how do you allow them to accomplish this?
9. Of all the homework and in-class problems that you assign, please indicate what percentage of types of answers are required.
10. Please rank by % the components of your class exams.
11. Please rank by % the components of your students' overall grades for the course.
12. Please indicate the teaching method you use according to the disciplines that you teach. Mark all that apply.
13. Please indicate the types of questions you assign according to the discipline that you teach. Mark all that apply.
14. What if any technology do you use in the following classes?
15. How often do you discuss ethics questions in class or assign ethics problems?
16. What is your main objective for your class?
17. A successful student in my class should demonstrate the following. (Please mark all that apply.)
18. Does your accounting program require or allow an internship in accounting?
19. How do you motivate students to prepare for your class time? Mark all that apply.
20. If you could change one item in the accounting curriculum at your college or university, what would it be?

TABLE 1
What Method of Teaching Did Past Accounting Teachers Use to Teach Current Accounting Professors the Majority of the Time?

Method	Response Count	Response Percent
Lecture only	4	8.9%
Lecture and problems completed by teacher in class	40	88.9%
Lecture and problems completed by students in class	8	17.8%
Problems and cases in class	4	8.9%
Discussion of current business articles with students in class	2	4.4%
Information technology labs	1	2.2%
Other	2	4.4%

Note. n= 45 respondents. Respondents could use choose multiple responses. Response percent based on n, not on total responses, explaining why percentages do not total to 100%.

Figure 1 Depiction of Table 1

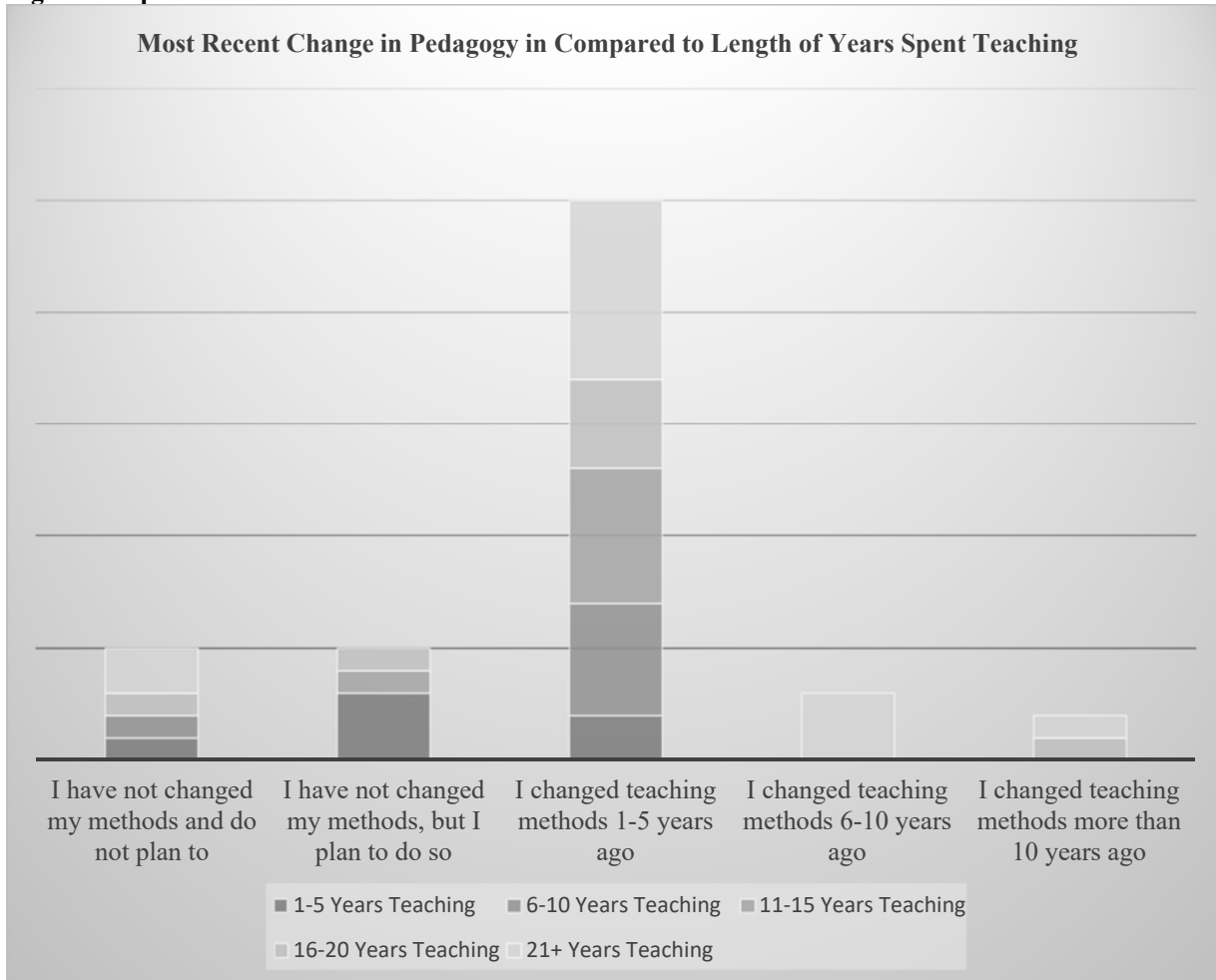


Note. n=45. Total responses are greater than 45 because respondents could choose multiple methods.

TABLE 2 Length of Years in Teaching Compared to Last Time They Changed Their Pedagogy						
	Years Spent Teaching					Total
	1-5	6-10	11-15	16-20	21+	
I have not changed my methods and do not plan to	1	1	0	1	2	5
I have not changed my methods, but I plan to do so	3	0	1	1	0	5
I changed teaching methods 1-5 years ago	2	5	6	4	8	25
I changed teaching methods 6-10 years ago	0	0	0	0	3	3
I changed teaching methods 11-15 years ago	0	0	0	1	0	1
I changed teaching methods 16-20 years ago	0	0	0	0	0	0
I changed teaching methods 21+ years ago	0	0	0	0	1	1

Note. n=40 respondents.

Figure 2 Depiction of Table 2

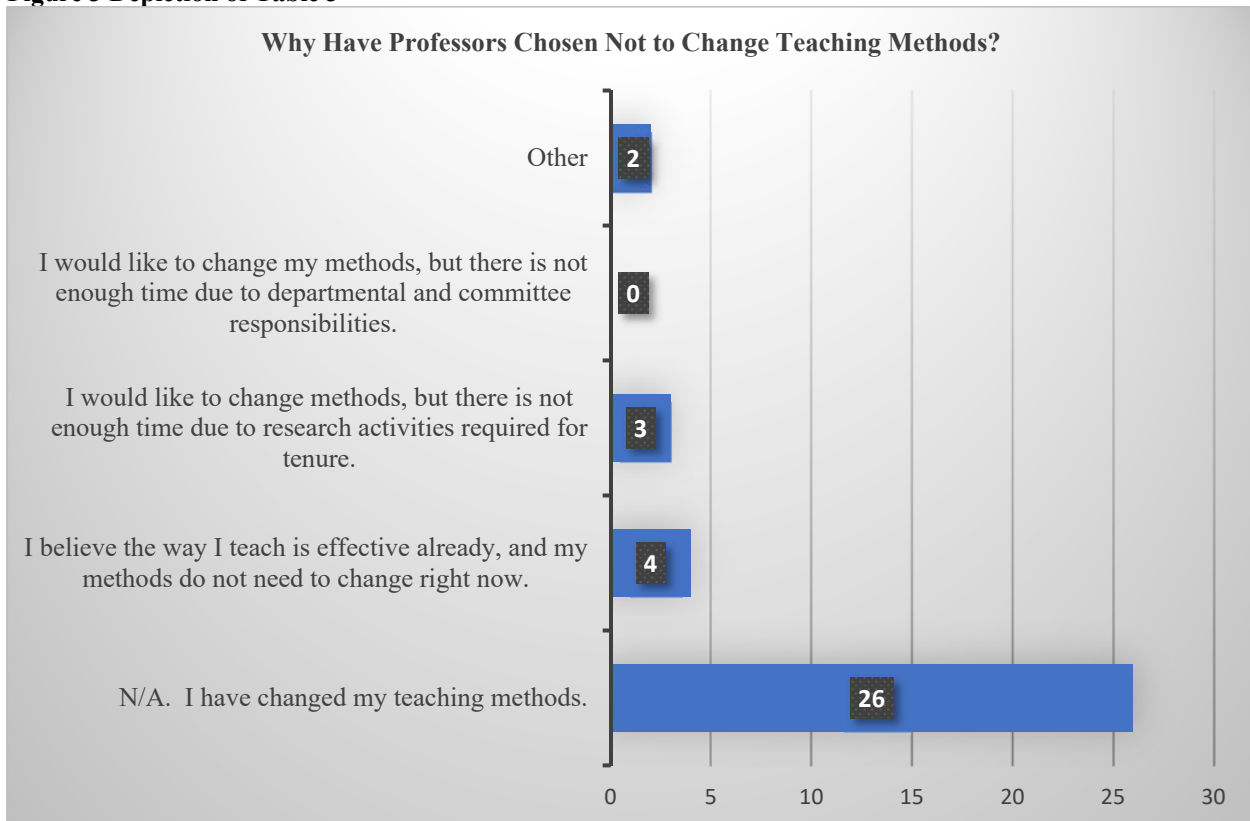


Note. n=40 respondents.

Reason Stated for Not Changing Methods	Responses	Percent
N/A. I have changed my teaching methods.	26	74.29%
I believe the way I teach is effective already, and my methods do not need to change right now.	4	11.3%
I would like to change methods, but there is not enough time due to research activities required for tenure.	3	8.57%
I would like to change my methods, but there is not enough time due to departmental and committee responsibilities.	0	0%
Other	2	5.71%

Note. n=35 respondents to this question (several skipped this question probably because they had changed teaching methods).

Figure 3 Depiction of Table 3

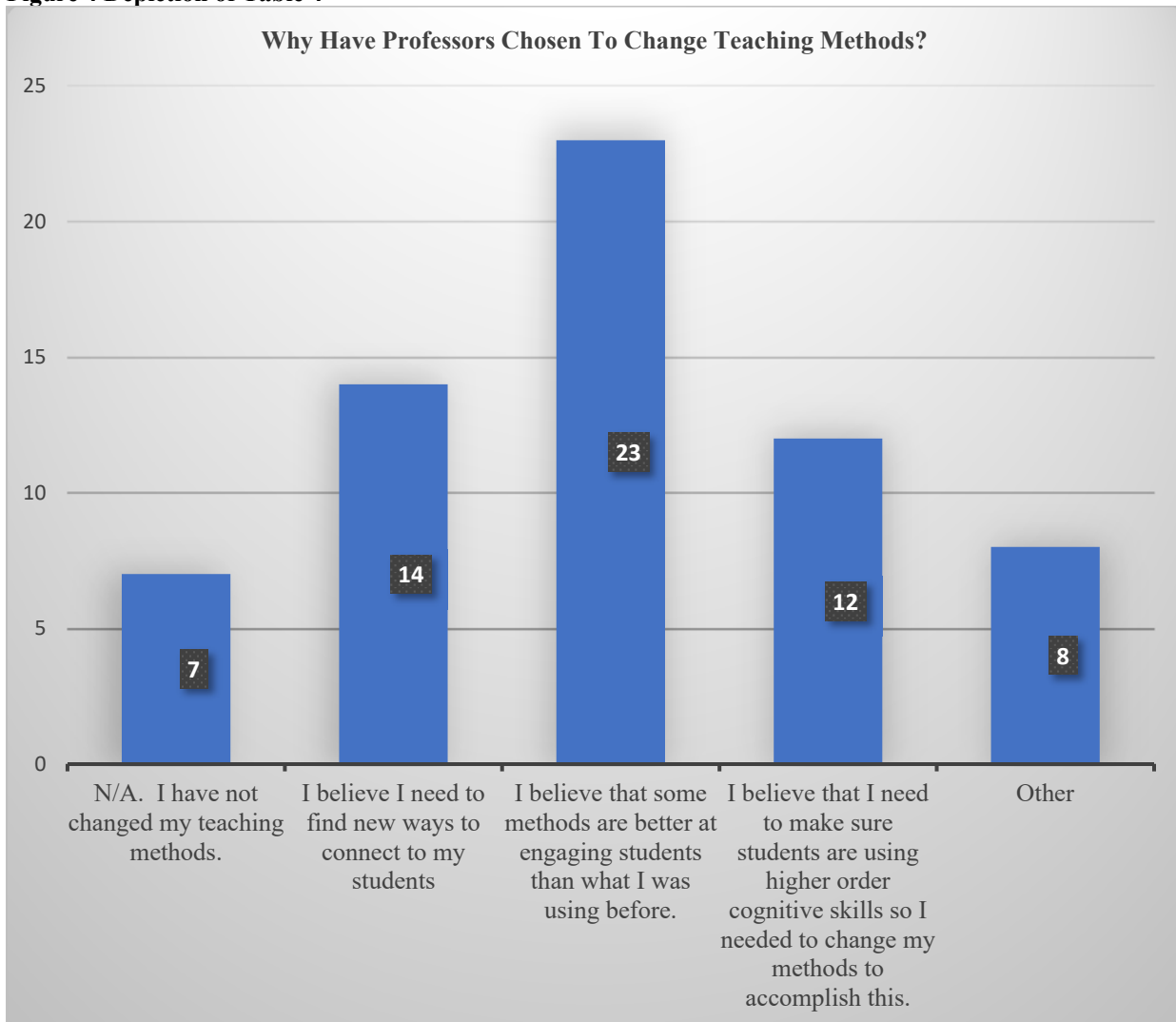


Note. n=35 on this question.

TABLE 4 Why Have You Chosen to Change Teaching Methods?		
Reason Stated for Changing Methods	Responses	Percent
N/A. I have not changed my teaching methods.	7	17.5%
I believe I need to find new ways to connect to my students	14	35%
I believe that some methods are better at engaging students than what I was using before.	23	57.5%
I believe that I need to make sure students are using higher order cognitive skills so I needed to change my methods to accomplish this.	12	30%
Other	8	20%

Note. n=40 respondents. Respondents could choose multiple responses.

Figure 4 Depiction of Table 4

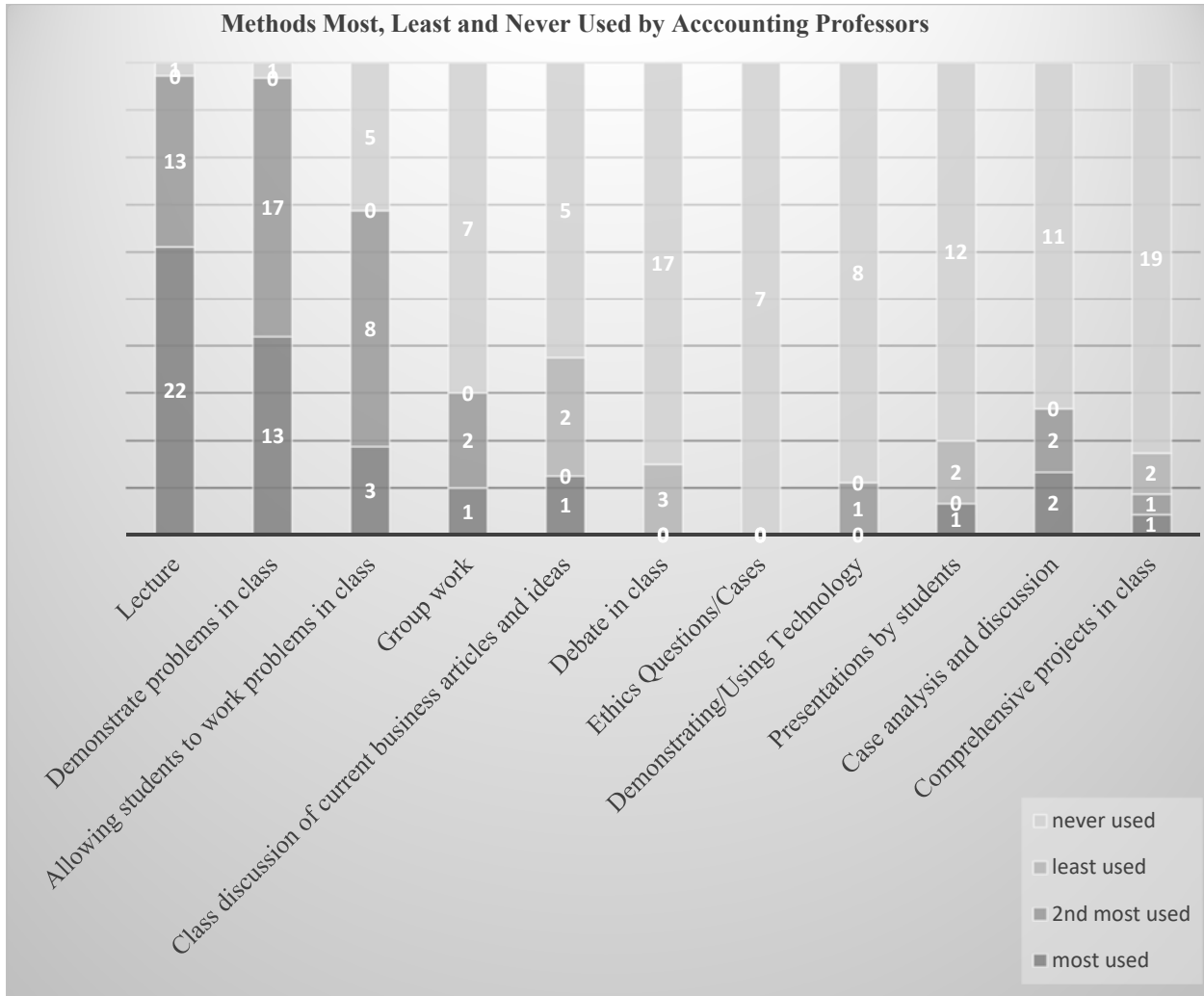


Note. n=40 respondents. Respondents could choose multiple responses.

Teaching Method	Method most used	Method 2nd most used	Method 2nd least used	Method least used	Method Never used
Lecture	22	13	0	0	1
Demonstrate problems in class	13	17	0	0	1
Students work problems in class	3	8	0	0	5
Group work	1	2	1	0	7
Class discussion of current articles	1	0	4	2	5
Debate in class	0	0	4	3	17
Ethics Questions/Cases	0	0	3	0	7
Demonstrating/Using Technology	0	1	3	0	8
Presentations by students	1	0	2	2	12
Case analysis and discussion	2	2	1	0	11
Comprehensive projects in class	1	1	0	2	19

Note. n=44 respondents. Respondents used multiple responses in the ranking.

Figure 5 Depiction of Table 5

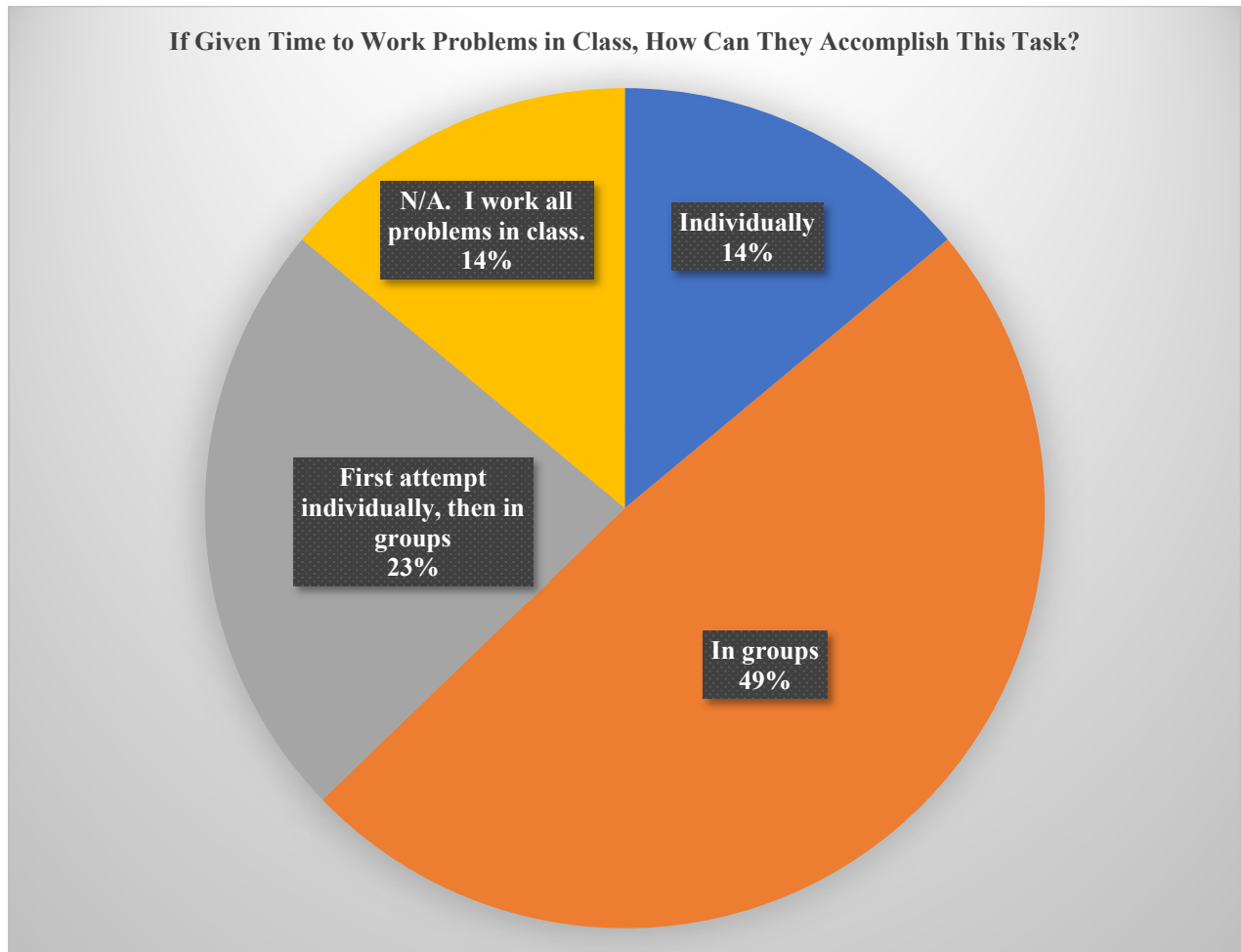


Note. n=44 respondents. Respondents could choose more than one response.

<u>Answer Options</u>	<u>Responses</u>	<u>Percent</u>
Individually	6	14%
In groups	21	49%
First attempt individually, then in groups	10	23%
N/A. I work all problems in class.	6	14%

Note. n=43 respondents.

Figure 6 Depiction of Table 6

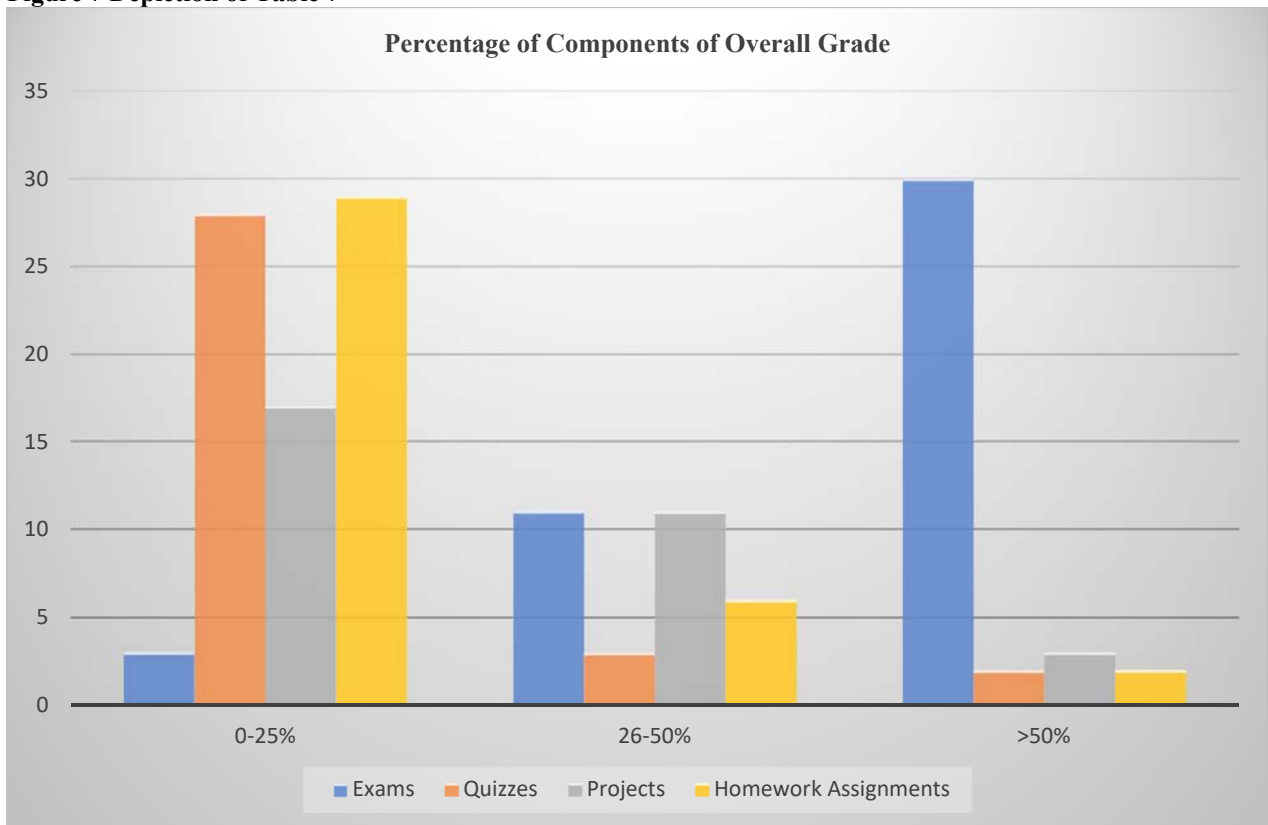


Note. n=43 respondents.

TABLE 7				
Percentage Components of Overall Grade				
<u>Answer Options</u>	<u>0-25%</u>	<u>26-50%</u>	<u>>50%</u>	<u>N/A</u>
Exams	3	11	30	0
Quizzes	28	3	2	5
Projects	17	11	3	4
Homework Assignments	29	6	2	3

Note. n=44 respondents.

Figure 7 Depiction of Table 7

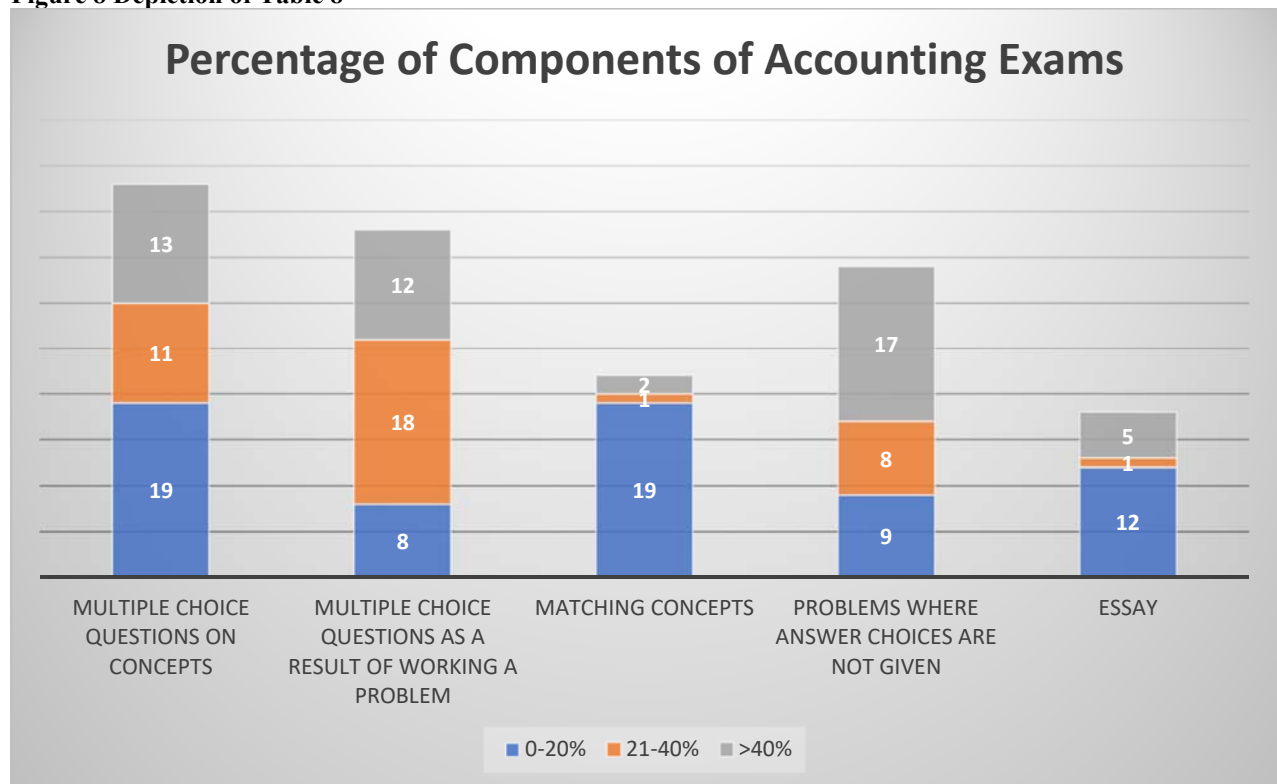


Note. n=44 respondents. Respondents could choose multiple answers.

<u>Answer Options</u>	<u>0-20%</u>	<u>21-40%</u>	<u>41-60%</u>	<u>61-80%</u>	<u>81-100%</u>	<u>Total</u>
Multiple choice questions on concepts	19	11	9	2	2	43
Multiple choice questions as a result of working a problem	8	18	9	3	0	38
Matching concepts	19	1	2	0	0	22
Problems where answer choices are not given	9	8	9	5	3	34
Essay	12	1	3	1	1	18

Note. n=44 respondents.

Figure 8 Depiction of Table 8

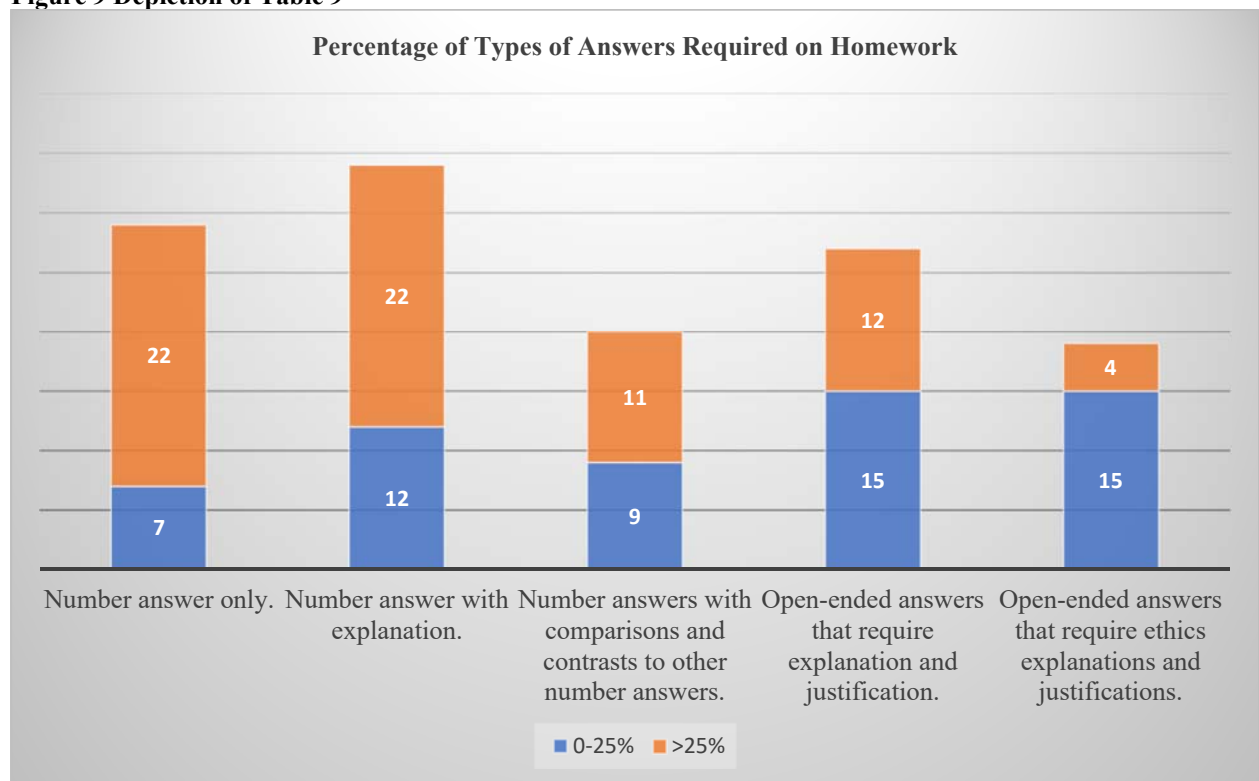


Note. n=44 respondents.

TABLE 9 Percentage of Types of Answers Required on Homework and In-class Assignments		
<u>Answer Options</u>	<u>0-25%</u>	<u>>25%</u>
Number answer only.	7	22
Number answer with explanation.	12	22
Number answers with comparisons and contrasts to other number answers.	9	11
Open-ended answers that require explanation and justification.	15	12
Open-ended answers that require ethics explanations and justifications.	15	4

Note. n=44 respondents.

Figure 9 Depiction of Table 9

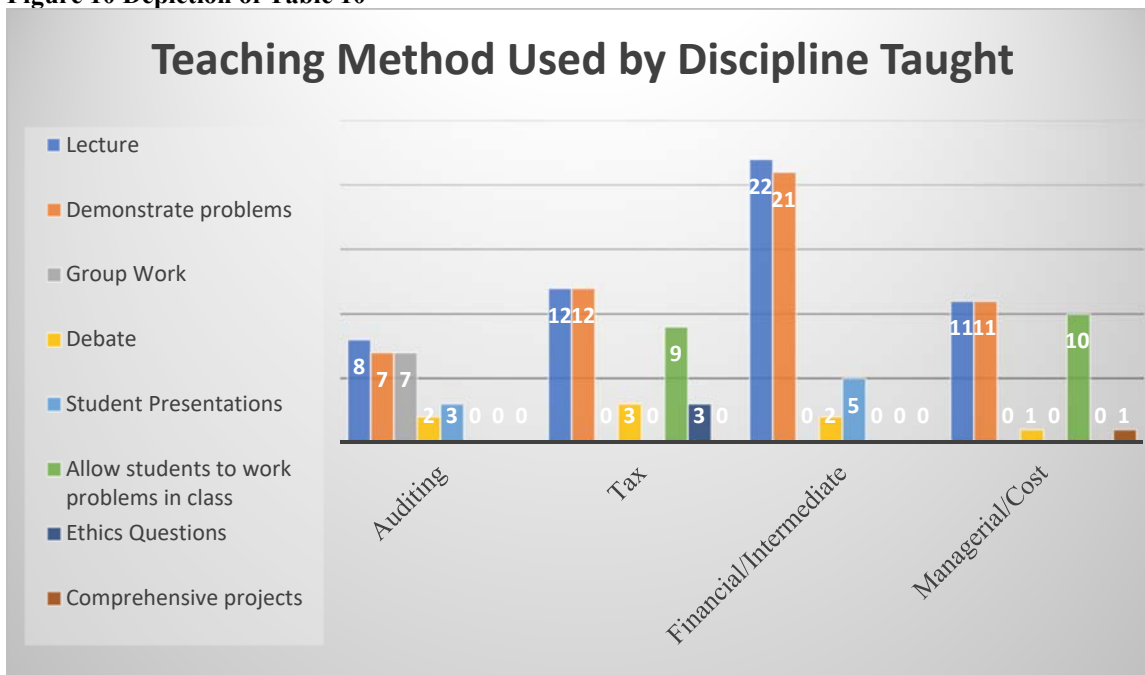


Note. n=44 respondents.

Courses taught	Number one teaching method used	Number two teaching method used	Least used teaching methods
Auditing	Lecture (8)	Demonstrate problems (7) and group work (7)	Debate (2) Student Presentations (3)
Tax	Lecture (12) Demonstrate problems (12)	Allow students to work problems in class (9)	Debate (3) Ethics Questions (3)
Financial/Intermediate	Lecture (22)	Demonstrate problems (21)	Debate (2) Student Presentations (5)
Managerial Cost	Lecture (11) Demonstrate problems (11)	Allow students to work problems in class (10)	Debate (1) Comprehensive projects (1)
Regulation & Business Concepts	Lecture with ethics questions and current business cases. (1)		
Accounting Information Systems	Primarily use comprehensive projects (1)		

Note. n= 38 respondents. Respondents could choose multiple responses

Figure 10 Depiction of Table 10

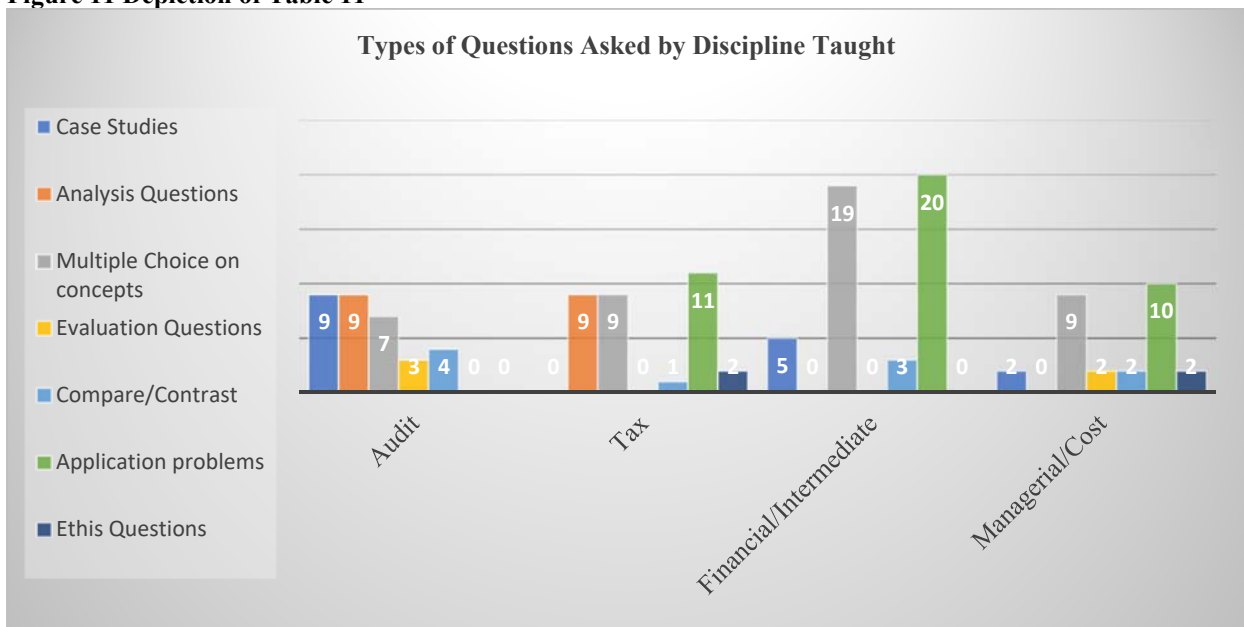


Note. n=38 respondents. Respondents could choose multiple responses

Courses taught	Number one type of question asked	Number two type of question asked	Least used type of questions
Auditing	Case studies (9) & Analysis questions (9)	Multiple choice questions on concepts (7)	Evaluation questions (3) Compare/Contrast questions (4)
Tax	Application problems (11)	Multiple choice questions on concepts (9) Analysis questions (9)	Compare/contrast questions (1) Ethics Questions (2)
Financial/Intermediate	Application problems (20)	Multiple choice questions on concepts (19)	Compare/contrast questions (3) Case Studies (5)
Managerial Cost	Application problems (10)	Multiple choice questions on concepts (9)	Case Studies (2) Compare/contrast (2) Evaluation Questions (2) Ethics Questions (2)
Other:			
Regulation & Business Conc.	Case studies multiple choice questions		
AIS	Application problems		

Note. n=36 respondents. Respondents could mark multiple responses.

Figure 11 Depiction of Table 11



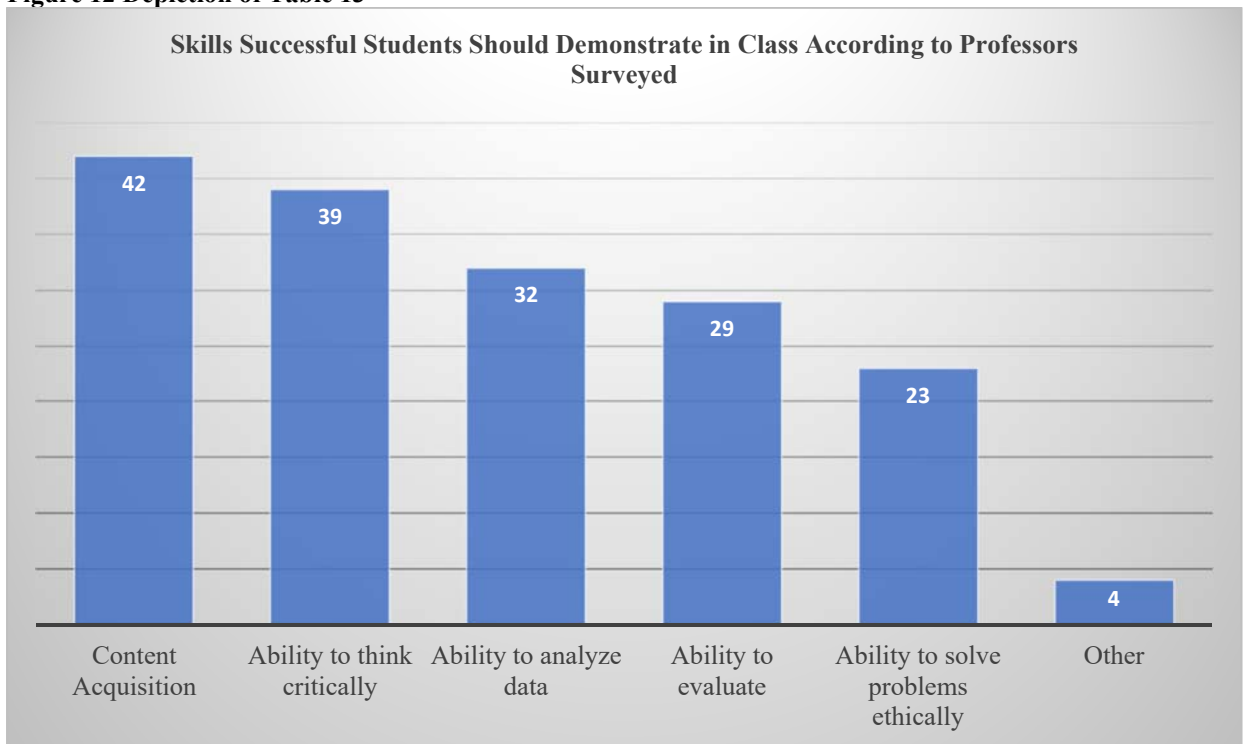
Note. n=36 respondents. Respondents could mark multiple responses.

TABLE 12		
Skill Allocation on Exam Prior to 2017 and New 2017 CPA Exam by Section		
Audit		
Skill Allocation:	Weight on Old Exam	Weight on New Exam
Evaluation	N/A	5-15%
Analysis	N/A	15-25%
Application	50%	30-40%
Remembering and Understanding	50%	30-40%
REG (including Ethics, Professional Responsibilities, Federal Taxation & Business Law)		
Skill Allocation:	Weight on Old Exam	Weight on New Exam
Evaluation	N/A	N/A
Analysis	N/A	25-35%
Application	50%	35-45%
Remembering and Understanding	50%	25-35%
FAR (including Conceptual Framework, Standard-Setting, Financial Reporting, Financial Statements, Transactions, & State and Local Government)		
Skill Allocation:	Weight on Old Exam	Weight on New Exam
Evaluation	N/A	N/A
Analysis	N/A	25-35%
Application	50%	50-60%
Remembering and Understanding	50%	10-20%
BEC (including corporate governance, economics, finance, information technology, and operations management)		
Skill Allocation:	Weight on Old Exam	Weight on New Exam
Evaluation	N/A	N/A
Analysis	N/A	20-30%
Application	50%	50-60%
Remembering and Understanding	50%	15-25%

TABLE 13	
Skills Successful Students Should Demonstrate in Class According to Professors Surveyed	
<u>Attributes</u>	<u>Responses</u>
Content Acquisition	42
Ability to think critically	39
Ability to analyze data	32
Ability to evaluate	29
Ability to solve problems ethically	23
Other	4

Note. n=44 respondents. Respondents could mark multiple responses.

Figure 12 Depiction of Table 13



Note. n=44 respondents. Respondents could mark multiple responses.