

Case Study Comparing Accounting Knowledge of Undergraduate and Graduate Students: Practice Innovation in the Consistent Placement of Faculty Over Time

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ABSTRACT

A College of Business and Economics, accredited by the Association to Advance Collegiate Schools of Business (AACSB), uses Capsim's Comp-XM simulation exam to assess student achievement of program learning goals: integration and critical thinking across disciplines when making business decisions. Multiple factors contribute to students' achievement of program learning goals. This paper reports one possible contributing factor: the best practices of assigning the same tenured faculty to continuously teach the same accounting course. Beginning in the fall quarter of 2009, a deliberate decision was made to have two tenured faculty teach the majority of sections for the first two introductory accounting courses of the BSBA program: Introduction to Financial Accounting and Introduction to Managerial Accounting. This decision did not apply to the MBA program. As a result, between 2013 and 2016, five different faculty members taught the two graduate MBA courses of Financial and Managerial Accounting. Scores were examined from Capsim's Comp-XM simulation exam from calendar years 2013 through 2016. We find significant differences exist in the accounting knowledge assessment results between the undergraduate and the graduate business students. It is not the intent of this paper to provide any direct causal factor of improvement in students' Capsim scores. This paper contributes to the literature by suggesting the benefits and best practices of assigning the same tenured faculty to continuously and consistently teach the majority of the same accounting course especially the first two undergraduate introductory accounting courses.

Key words

Association to Advance Collegiate Schools of Business, AACSB, Capsim, Business Simulation, Comp-XM,, Program Learning Goals, Program Learning Objectives, Assessment, Assurance of Learning, Closing the Loop, Introductory Accounting Courses, Best Practices, Tenured Faculty.

INTRODUCTION

Educators have been working meticulously in an effort to find ways to improve students' learning. Multiple factors contribute to improvement in students' learning. It is not the intent of this paper to provide direct causal factor of improvement in students' learning. This paper is a case study comparing Capsim's Comp-XM scores of accounting knowledge of undergraduate and graduate students from calendar years 2013 through 2016. Through the case study this paper suggests to readers that a possible contributing factor to improvement in undergraduate students' learning of accounting knowledge is the innovative practice of assigning the same two tenured faculty to teach the majority of the first two introductory accounting courses of the BSBA program: Introduction to Financial Accounting and Introduction to Managerial Accounting. The rest of this introduction section will describe the background of this paper's case study.

Part of a larger university, the authors work in the College of Business and Economics (CBE) situated on the west coast of the United States. The university is regionally accredited by the Western Association for Schools and Colleges (WASC) Senior College and University Commission (WSCUC). CBE has been accredited by the Association to Advance Collegiate Schools of Business (AACSB). CBE has six AACSB accredited degree programs. Two of these programs include the undergraduate program, the Bachelor of Science in Business Administration (BSBA) and the graduate program, the Master of Science in Business Administration (MBA). The BSBA and MBA programs have their own program learning goals and (PLGs) and program learning objectives (PLOs). Program learning objectives are measurable outcomes that derive from the larger learning goal.

Two PLOs from the BSBA program include: (1) students who graduate will recognize and integrate foundation knowledge across functional areas, and (2) students who graduate will apply critical thinking skills to solve business problems. The MBA program also contains a similar PLO, whereby students who graduate will be able to analyze and integrate knowledge across disciplines to make managerial decisions to reach solutions to complex business problems. CBE uses Capsim's Comp-XM simulated exam to assess whether the BSBA and MBA students are proficient in their parallel learning objectives. All BSBA and MBA students will take Capsim's Comp-XM exam in their respective capstone management course prior to graduation.

"Comp-XM can be used as a final exam, for curriculum development and program assessment, and to provide data for accreditation ... It provides a clear picture of how effectively students can use their business acumen to actively manage a business in an evolving, competitive environment (Capsim)." Capsim's Comp-XM simulated exam includes accounting knowledge questions. Curriculum requires undergraduate students to take two introductory accounting courses: (1) Introduction to Financial Accounting and (2) Introduction to Managerial Accounting. Graduate students also have to take two accounting courses: (1) Financial Accounting and (2) Managerial Accounting. If business students, BSBA or MBA, fail to learn accounting knowledge well in their first two accounting courses, they will likely not score well in Capsim's Comp-XM accounting knowledge questions.

The letter grade that a student, undergraduate or graduate, receives from an accounting course is often a reflection of a student's total cumulative points earned from different educational activities ranging from attendance, homework, examinations, completion of business simulation episodes or case studies, and presentation of group project. The first two authors of this paper, who teach both undergraduate and graduate accounting courses, argue that Capsim's Comp-XM exam is the best available measurement to compare success of undergraduate and graduate students in their learning of accounting knowledge on the same exam. Capsim's Comp-XM simulated exam includes accounting knowledge questions of both financial and managerial accounting.

The college and the university are located in a metropolitan city where highly qualified part-time lecturers, possessing backgrounds as partners in accounting firms, are hard to continuously recruit due to the non-competitive public sector pay. Between calendar years 2013 and 2016, CBE assigned five different faculty members to teach the two graduate courses identified earlier, Financial and Managerial Accounting, in the MBA program. Comparatively, since fall quarter 2009, CBE deliberately assigned two tenured accounting faculty members to continuously teach most of the first two introductory accounting courses in the BSBA program, Introduction to Financial Accounting and Introduction to Managerial Accounting.

Comparisons are made and analysis drawn between BSBA and MBA student results in the accounting portion of the Capsim Comp-XM exam. By comparing Capsim's Comp-XM accounting knowledge scores for years 2013 through 2016 between the BSBA the MBA students, our analysis shows that BSBA students' scores improved while the scores of MBA students declined throughout the same time period.

Clearly, there are many factors contributing to the performance of a student's score on the accounting knowledge portion of Capsim Comp-XM exam.

Multiple factors contribute to the difference in accounting knowledge assessments results between the BSBA and MBA students. For example, there are more accounting majors enrolled in the BSBA program compared to the MBA program, which does not have an emphasis on accounting, thus making it less likely to excel at accounting relative to BSBA accounting majors. Every school is different. Having several faculty teaching the two MBA courses of Financial and Managerial Accounting, over a period of four years, might be successful in other schools but not in the case of CBE. In CBE the five different faculty, who taught Financial and Managerial Accounting of the MBA program between 2013 and 2016, did not coordinate among themselves to ensure consistent learning and assessment results. This paper reports to readers the innovative practice of assigning the same tenured accounting faculty to continuously teach most of the first two introductory accounting courses in the BSBA program as a possible contributing factor which positively impacts student results, specifically student scores on the accounting knowledge portion of the Capsim Comp-XM exam.

This paper contributes to the body of literature by explaining the benefits of assigning the same tenured accounting faculty to continuously teach most of the undergraduate introductory accounting courses versus using a rotating door of faculty to teach the initial accounting courses in the program. Furthermore, this paper provides best practices for readers to consider when adopting such a practice. This paper's Discussion Section will discuss the benefits and best practices in details.

Prior literature discusses teaching pedagogy and teaching techniques proven to improve student learning in the undergraduate introductory accounting courses. There is a lack of research questioning whether it matters to have consistency among teaching instructors in introductory courses. There is even less literature available using exam results from a business simulation to compare student success longitudinally, particularly when two test groups demonstrate a contrast in the consistency of the teaching faculty.

The next section discusses prior research conducted in this area. The third section discusses research design followed by an overall discussion of the results in the fourth section. The final and last section consists of the conclusion.

PREVIOUS RESEARCH

Assurance of learning refers to processes for demonstrating that students achieve learning expectations for the programs in which they participate. In regards to such processes, CBE faculty often follow official guidelines like: (1) The Western Association for Schools and Colleges (WASC) Senior College and University Commission (WSCUC) 2013 handbook of accreditation, (2) The Association to Advance Collegiate Schools of Business (AACSB) (2013a) Eligibility Procedures and Accreditation Standards for Business Accreditation, and (3) The Association to Advance Collegiate Schools of Business AACSB Assurance of Learning Standards: An Interpretation AACSB White Paper No. 3 (AACSB) (2013b). Assurance of learning is a faculty driven process. AACSB 2013 Business Accreditation Standard Eight suggests, "for assurance of learning purposes, AACSB accreditation is concerned with broad, program-level focused learning goals for each degree program, rather than detailed learning goals by course or topic, which must be the responsibility of individual faculty members (AACSB, 2013a, p. 33)." AACSB 2013 Business Accreditation Standard Nine further continues on to say, "learning goals describe the knowledge and skills students should develop in a program and set expectations for what students should do with the knowledge and skills after completing a program. Not all content areas need to be included as learning goals (AACSB, 2013a, p. 34)."

Prior literature about teaching pedagogy in undergraduate accounting courses exists in plenty. Cunningham (2011) discusses how to teach a mass lecture section of the course Introduction to Financial Accounting. Saudargaran (1996) advocates for active learning, while Killian et al. (2012) discusses the development of an active student-centered exercise for the first accounting course. Young and Warren (2011) suggest the importance of critical thinking skills and Johnstone et al. (2013) develops a case for critical thinking to be used in the Introduction to Financial Accounting. Premuroso et al. (2011) recommend the use of clickers during teaching. Dallimore et al. (2010) suggest the instructor should foster student comfort with class discussion. Braun and Sellers (2012) suggest instructors should give a daily quiz and Dillard-Eggars et al. (2008) recommend the use of online homework system for the accounting principle course.

One of the benefits of having the same full-time tenured faculty teaching the first two undergraduate introductory courses is to be able to consistently implement pedagogy suggested in prior accounting education literature such as Saudargaran (1996), Killian et al. (2012), Young and Warren (2011), Johnstone et al. (2013), Premuroso et al. (2011), Dallimore et al. (2010), Braun and Sellers (2012) and Dillard-Eggars et al. (2008). Please see this paper's Discussion Section for detail discussion of the mentioned-above benefit.

On the other hand, prior literature about teaching pedagogy in the MBA accounting courses are fewer in numbers among published papers. Hughes (2013) develops a case for MBA students to practice function development and breakeven analysis, while Price III (2013) develops a case for MBA students to practice direct method cash flow statement. Accounting instructors can continuously improve their teaching skills by adopting proven methods in teaching. The next section will examine this study's research design that will lead to such proven methods.

RESEARCH DESIGN

The key thesis of the paper is to show that the innovative practice of assigning the same tenured accounting faculty to continuously teach most of the first two introductory accounting courses of the BSBA program is a contributing factor to the difference among scores between BSBA and MBA students on Capsim's Comp-XM exam, specifically on the accounting knowledge questions

CBE offers two introductory accounting courses in its regular Fall, Winter, Spring and sometimes Summer terms. Enrollment in the undergraduate course Introduction to Financial Accounting between calendar years 2013 and 2016 totals annually 606 students (2013), 577 students (2014), 572 students (2015), and 690 students (2016). Instead of having one mass lecture class with 150 students and one small class of 50 students, beginning in Fall quarter 2015, CBE offered Introduction to Financial Accounting through one online class with 110 students in addition to one to two traditional face-to-face classes of 65 students. Also beginning Fall 2015, CBE offered Introduction to Managerial Accounting as one online class with 70 students plus two face-to-face classes of 45 students each. The average enrollment between calendar years 2013 and 2016 for Introduction to Managerial Accounting is approximately 400 students annually.

Since Fall 2009, the same full-tenured professor with over twenty years of teaching and publishing experience taught either the large lecture section or the online version of Introduction to Financial Accounting. Newly hired tenure-track faculty possessing terminal doctoral degrees normally taught the smaller sections of Introduction to Financial Accounting. Since Fall 2009, Introduction to Managerial Accounting has been taught by either the same tenured associate professor or by newly hired tenure-track faculty.

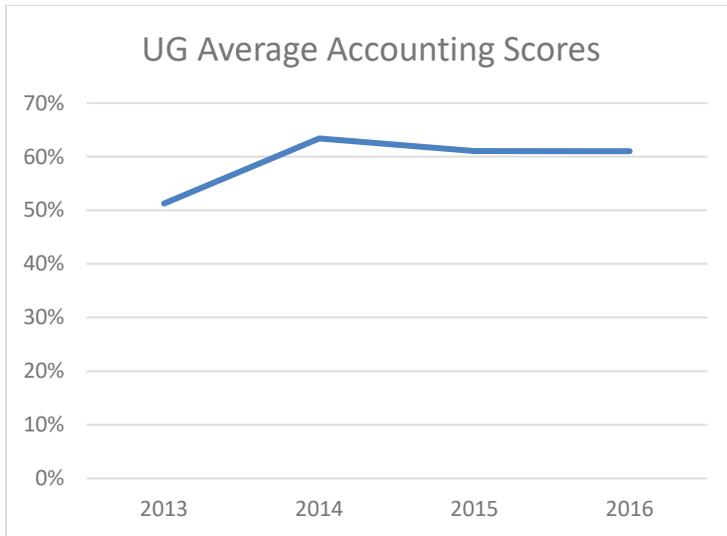
The average enrollment between calendar years 2013 and 2016 for the undergraduate course Introduction to Financial Accounting is around 610 students annually, while the average enrollment from the same period for the undergraduate Introduction to Managerial Accounting is only 400 students annually. Both introductory accounting courses have a high percentage of failing grades and student course withdrawals. One of the reasons for having a high percentage of failing grades in the introductory accounting courses may be due to the fact the University admits freshmen with deficiencies in mathematics and/or English. Freshmen who are deficient in mathematics and/or English are required to complete remedial courses in the deficient areas before they may enroll in business courses. Facing the challenges of teaching freshmen with such deficiencies, CBE implemented the practice of assigning the same tenured accounting faculty to continuously teach the majority of sections for the first two introductory accounting courses of the BSBA program. This practice started in Fall 2009.

Comparatively, from 2013 to 2016, CBE assigned five different faculty members to teach the two graduate MBA courses: Financial and Managerial Accounting. The average enrollment between calendar years 2013 and 2016 for Financial Accounting is around 115 students annually, while the average enrollment of the same period for Managerial Accounting is only 100 students annually. The five full-time faculty members teaching the two graduate MBA courses assigned different textbooks and deployed different teaching pedagogies. They also had varying levels of experience in teaching MBA accounting courses. Unlike the undergraduate introduction to accounting courses, the graduate MBA courses in accounting were not coordinated in terms of learning objectives, textbooks, and outcome assessments. For example, some MBA Financial Accounting courses required projects of financial reporting while others did not.

To address the key thesis of the paper, as highlighted in the first paragraph of research design, this paper compares BSBA and MBA students' Capsim Comp-XM scores on accounting knowledge questions from calendar years 2013, 2014, 2015 and 2016.

Figure 1 and Table 1 show BSBA students' Capsim Comp-XM scores on accounting knowledge questions from calendar years 2013, 2014, 2015 and 2016.

Figure 1: Average Capsim Comp-XM Accounting Scores Among BSBA Students from Calendar Years 2013, 2014, 2015 and 2016



Average BSBA Capsim Comp-XM Accounting Scores are compiled and shown in Table 1.

Table 1: Average Capsim Comp-XM Accounting Scores Among BSBA Students from Calendar Years 2013, 2014, 2015 and 2016

Calendar Year	2013	2014	2015	2016
Mean (%)	51.26	63.40	61.06	61.01
Standard Deviation (%)	17.48	18.08	16.79	17.15
Minimum (%)	6.13	5.90	3.76	4.44
Maximum (%)	93.09	98.08	96.76	95.88
Number of Students	534	612	577	216
T-test		**		

Mean (%) is the average percent of BSBA students' correct scores out of one hundred percent of total points.

** Significant differences between the means of current and previous year using independent two-tailed t-test at 95% Confidence Interval.

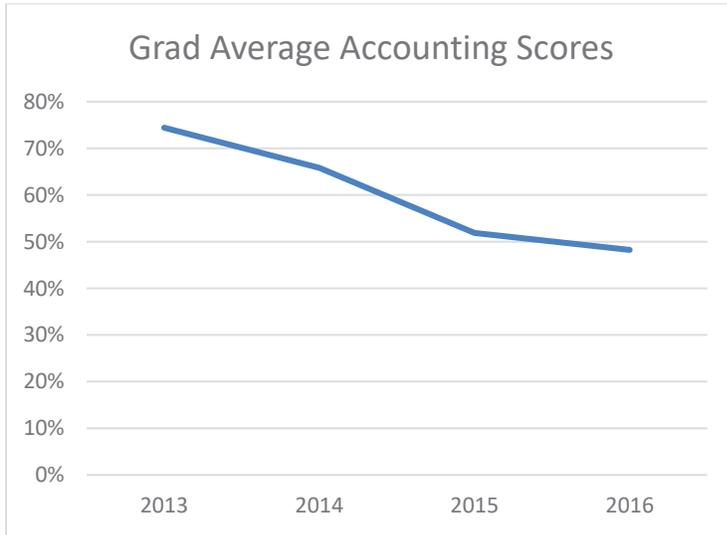
Number of BSBA students decreased from 577 in 2015 to 216 in 2016 was due to a variety reasons including the increase of enrollment in Science, Technology, Engineering and Mathematics (STEM) Programs instead of Business Program.

Table 1 shows mean percentages of Capsim's Comp-XM accounting knowledge questions among BSBA students for years 2013 through 2016. The mean percentage of 2013 is 51.26% (534 seniors), 2014 is 63.40% (612 seniors), 2015 is 61.06% (577 seniors), 2016 is 61.01% (216 seniors). On average, between 2013 and 2016, 1,939 BSBA students scored 59 percent of the total possible points of accounting questions on the Comp-XM examination.

Results of BSBA students improved from 51.26% in 2013 to 63.40% in 2014.

Figure 2 and Table 2 show MBA students' Capsim's Comp-XM scores on accounting knowledge questions (2013-2016). Contrary to the improvement shown among BSBA students, Comp-XM scores of MBA students were in a declining trend between calendar years 2013 and 2016.

Figure 2: Average Capsim Comp-XM Accounting Scores Among MBA Students from Calendar Years 2013, 2014, 2015 and 2016



Average MBA Capsim’s Comp-XM Accounting Scores are compiled and shown in Table 2.

Table 2: Average Capsim Comp-XM Accounting Scores Among MBA Students from Calendar Years 2013, 2014, 2015 and 2016

Calendar Year	2013	2014	2015	2016
Mean (%)	74.42	65.82	51.85	48.23
Standard Deviation (%)	9.64	16.29	15.64	19.98
Minimum (%)	54.73	11.10	12.55	0.12
Maximum (%)	95.09	91.75	83.06	89.97
Number of Students	37	95	56	217
T-test		**	**	

Mean (%) is the average percent of MBA students’ correct scores out of one hundred percent of total points.

** Significant differences between the means of current and previous year using independent two-tailed t-test at 95% Confidence Interval.

Number of MBA students increased from 56 in 2015 to 217 in 2016 was due to a variety reasons like requiring students of the other two newly developed self-support Executive MBA Programs to take Capsim’s Comp-XM exam.

Table 2 shows mean percentages of Capsim’s Comp-XM accounting knowledge questions among MBA students for years 2013 through 2016. The mean percentage of 2013 is 74.42% (37 MBA students), 2014 is 65.82% (95 MBA students), 2015 is 51.85% (56 MBA students), 2016 is 48.23% (217 MBA students). On average, between 2013 and 2016, 405 MBA students scored 55.25 percent of the total possible points of accounting questions on the Comp-XM examination.

The next section discusses implications of the results.

DISCUSSION

Figure 1 shows significant improvement in the results of BSBA students when analyzing Capsim’s Comp-XM accounting knowledge questions. Results of BSBA students improved from 51.26% in 2013 to 63.40% in 2014. For three continuous years between 2014, 2015 and 2016, results of BSBA students from Capsim’s Comp-XM accounting knowledge questions has been around 61%. Figure 2 shows significant decline in the results of MBA

students when analyzing Capsim's Comp-XM accounting knowledge questions. Results of MBA students declined from 74% in 2013 to 66% in 2014, to 52% in 2015, and to 48% in 2016.

Figure 1 and 2 highlight the differences between undergraduate and graduate assessment results based on Capsim's Comp-XM accounting knowledge questions from years 2013 through 2016. Figure 1 shows the average BSBA assessment results based on Comp-XM accounting knowledge questions from 2013 to 2016 holding steady around 60 percent. On the contrary, Figure 2 shows the average MBA assessment results based on Comp-XM accounting knowledge questions declining from 74% in 2013 to 48% in 2016.

The authors acknowledge that many factors exist many which influence assessment results of both the undergraduate and graduate programs. However, through the data provided, it is contended that the institutional practice of having the same tenured accounting faculty continuously teaching the majority of the undergraduate introductory accounting courses is a contributing factor which has positively impacted student scores. This paper will now discuss the benefits of having the same tenured accounting faculty teaching the majority of undergraduate sections of introductory accounting courses.

After receiving tenure status, faculty normally have more time and freedom to pursue their interests in either teaching or research. The benefits of having full-time tenured faculty teaching the first two undergraduate introductory courses are (1) the opportunity to mentor newly hired faculty with doctoral degrees in teaching, (2) implementing pedagogy suggested in prior accounting education literature, (3) attending workshops in order to bring proven teaching pedagogical techniques into the classroom and integrate lessons into course curriculum, (4) establishing and maintaining consistency in learning objectives, textbooks, and outcome assessments between different sections of the same accounting course, and (5) teaching courses more effectively, as experienced tenured faculty are able to understand the strengths and weaknesses of undergraduate students better than part-time instructors who have much less teaching experience.

Dunn et al. (2016) suggest accounting doctoral programs may not have offered their candidates formal training and apprenticeship in teaching pedagogy. Mentoring new faculty is important since "teachers beginning their careers place higher value on training in skills that tend to affect day-to-day teaching responsibilities and likely to improve student evaluations (Dunn 2016, p. 168)." At CBE, it is a common practice to pair newly hired accounting faculty with seasoned tenured faculty for two years when teaching the first two undergraduate introductory courses. This allows new accounting faculty the opportunity to learn and acquire skills of seasoned tenured faculty.

Compared to part-time lectures, tenured and tenure-track faculty have more time to read and deploy published pedagogy in accounting education literature while also teaching classes. For example, between Fall 2009 and Spring 2015, one tenured faculty taught Introduction to Financial Accounting and incorporated the practice of understanding the audience in order to develop a vision for the course, as described in Cunningham (2011). The following two paragraphs briefly describe other published pedagogies that have been adopted by two tenured and tenure-track faculty while teaching the majority of the first two undergraduate introductory accounting courses at CBE.

Prior accounting literature has covered how to teach the first two undergraduate introductory accounting courses. For example, Killian et al. (2012) developed an exercise that incorporates active, student-centered learning into the first accounting course. Through active learning, students can not only construct knowledge within their mind but can also make sense of new information learned in the future, in terms of what is already known in their mind (Saudagaran, 1996).

Springer and Borthick (2007) demonstrate students taught using Excel spreadsheets to solve complex business simulation episodes or case studies have better higher-order thinking skills than students taught using more traditional pedagogy. Young and Warren (2011) suggest critical thinking skills should be taught in the introductory accounting courses and Johnstone et al. (2013) developed a case for critical thinking, which is suitable for use in introductory accounting.

Dallimore et al. (2010) suggest faculty should foster student comfort with class discussion, since the learning-comfort relationship can lead to increased student mastery of course content. Braun and Sellers (2012) suggest faculty teaching introductory accounting courses should give a short daily quiz at the beginning of each class to

motivate students to prepare for class, arrive on time, and participate in class discussions. Through interviews, the authors' colleagues have confirmed they deploy such cited pedagogies, while teaching introductory accounting courses.

Whether teaching large lecture hall classes or smaller classroom sized classes of the introductory accounting courses, faculty have been using technology to improve student learning. Dillard-Eggars et al. (2008) find a strong positive relationship between students' grades and the use of an online homework system for the accounting principle course. Philips and Johnson (2011) find students' transaction analysis performance increased at a significantly faster rate when students used intelligent tutoring system, instead of an online homework system. Philips and Johnson (2011) suggest that online homework system, provided by textbooks publishers, can provide immediate feedback to the accuracy of students' answers of algorithmically generated homework problems. An intelligent tutoring system not only provides feedback to the accuracy of students' answers but also provides explicit step-by-step instruction on the process needed to reach solutions of algorithmically generated homework problems (Philips and Johnson, 2011).

Accounting faculty have also been using clickers in their face-to-face introductory accounting courses. Premuroso et al. (2011) describe clickers as an Audience Response Systems that (1) allow each student to respond to instructor-posed questions in the classroom, and (2) immediately display graphical summary of the answers submitted by all students to each instructor's question. Premuroso et al. (2011) find students perform better when tested using clickers to respond to in-class questions posted by the instructor. The authors' University provides one free clicker to all incoming freshman.

Readers should take notice that it is the faculty, teaching the Introduction to Financial Accounting, who (1) prepare the mass lecture section according to the design suggested by Cunningham (2011), (2) promote active learning as advocated by Saudargaran (1996), (3) teach critical thinking skills by using teaching cases of Johnstone et. al (2013), (4) use clickers while teaching as suggested by Premuroso et al. (2011), (5) promote class discussion to foster student comfort as suggested by Dallimore et al. (2010), (6) give daily quiz and uses online homework system as suggested by Braun and Sellers (2012) and Dillard-Eggars et al. (2008) respectively. The importance of the faculty as a contributing factor to students' learning cannot be underestimated. Consequently this paper strongly suggests that the institutional practice of having the same tenured accounting faculty continuously teaching the majority of the undergraduate introductory accounting courses is a contributing factor to the difference among scores between BSBA and MBA students on Capsim's Comp-XM exam, specifically on the accounting knowledge questions.

Compared to part-time lectures, tenured faculty have more time to attend workshops to bring proven teaching pedagogical techniques into the classroom and integrate lessons into course curriculum. Both undergraduate introductory accounting courses have a high percentage of failing grades and student course withdrawals. Since 2015 the Chancellor's Office has been organizing weeklong "Proven-Practices" workshops in various campus locations emphasizing the implementation of supplemental instruction, especially in bottleneck courses. Jones and Fields (2001) find that participation in both voluntary and mandatory supplemental instruction has positive benefits on a student's grade in the first introductory accounting course. CBE Faculty teaching undergraduate introductory accounting courses have attended the "Proven- Practices" workshops and have implemented supplemental instruction in all face-to-face introductory accounting courses. In an effort to assist CBE faculty, the University has recently created the administrative position of Supplemental Instruction Coordinator to coordinate all in-class supplemental instruction activity throughout the University.

Since Fall 2015, CBE has offered Introduction to Financial Accounting and Introduction to Managerial Accounting through traditional face-to-face classes, as well as through the online program. Chen et al. (2013) find that the delivery mode (online or in-class) is not important in introductory accounting courses. Nevertheless, the Chancellor's Office provides funding to each campus within the university system to provide training called *Quality Matters* (QM) for all faculty teaching courses online. Sener (2006) explains the purpose of *Quality Matters* is to provide a model to assess, assure, and improve the quality of online courses. At present there are four accounting professors who have successfully completed their training and have become QM course reviewers at CBE. Two accounting professors have had their Introduction to Financial Accounting online course successfully reviewed and recognized as "Certified Quality" online courses.

The next few paragraphs contain best practices to consider when deploying the institutional practice of assigning the same tenured faculty to teach the majority of undergraduate sections of introductory accounting courses. The authors suggest six best practices for accounting faculty at teaching institutions.

1. Accounting faculty interested in teaching undergraduate introductory accounting courses.

Faculty should not be forced into teaching the undergraduate introductory accounting courses when their interests are elsewhere, such as in research and publishing. Institutions and programs should select instructors with an interest and passion in teaching students, particularly those with deficiencies in either mathematics and/or English, if that is a known weakness identified within the student population

2. Extensive teaching experiences in intermediate and advanced accounting courses.

Faculty teaching undergraduate introductory accounting courses have extensive teaching experiences in teaching upper level intermediate and advanced accounting courses. For example, one CBE faculty teaching Introduction to Financial Accounting also teaches either an intermediate or advanced accounting course during the academic year. Seasoned accounting faculty should avoid frustrating freshmen with complex accounting topics, such as direct method of statement of cash flow. These topics should not be taught in the first introduction to financial accounting course. Experienced accounting faculty often emphasize key concepts, such as closing and adjusting journal entries.

3. Passionately guiding newly minted Ph.D. tenure-tracked faculty.

Seasoned tenured faculty need to passionately guide the new accounting faculty not only in teaching pedagogies and skills, but also in addressing other challenging issues faced in the classroom, such as student cheating. For example, CBE has benefited from mentorships by pairing new accounting faculty with seasoned tenured faculty to teach the first two introductory accounting courses over a two-year period.

4. Adoption of teaching pedagogies from accounting education literature.

Faculty teaching Introductory Accounting courses must devote considerable time and effort to reading and adopting the latest pedagogies published in accounting education literature. For example, prior accounting literature describes the benefits of incorporating active, student-centered learning into the first accounting course (Springer and Borthick 2007).

5. Training to improve pedagogies or to adopt latest techniques in teaching.

Faculty teaching Introductory Accounting courses and upper level accounting courses must be willing to attend training seminars to improve upon existing teaching techniques. For example, CBE accounting faculty completed training to become *Quality Matters* course reviewers. CBE accounting faculty also attended workshops to integrate supplemental instructions into their courses.

6. Funding for training and attending workshops.

Teaching institutions must provide funding for faculty training and attending workshops annually. Accounting has its own professional standards issued by various professional or regulatory bodies. Continuous professional education is a necessity for faculty to remain up-to-date with the latest regulatory pronouncements. Funding for workshops is also a necessity in order to enable faculty to adopt proven technologies into the classroom. One example at CBE is the adoption of Lecture Capture, which consists of audio capturing of a course's lectures and posting recorded lectures to the course's learning management system website (*i.e.*, Blackboard, Canvas, etc.) for students to review.

The next section is conclusions.

CONCLUSIONS

Table 1 and Figure 1 show mean percentages of Capsim's Comp-XM accounting knowledge questions among BSBA students for years 2013 through 2016. Results of BSBA students improved from 51.26% in 2013 to 63.40% in 2014. For three continuous years between 2014, 2015 and 2016, assessment results using Capsim's Comp-XM accounting knowledge questions has been around 61%. Contributing to this improvement is the innovative practice of assigning the same tenured faculty to most of the undergraduate Introductory Accounting courses. This paper describes the background, benefits, and best practices of this institutional practice.

The authors acknowledge several weaknesses in this paper. Ideally, the authors should provide longitudinal data of at least five years, which is considered a full cycle of assessments for the discipline-based accreditation body or ten years for the regional accrediting body. Different Colleges of Business have different PLOs and this paper provides a case study focusing on the specific environment of the University and the college where the authors work. In the future, the authors will update readers regarding future assessment results. Emphasis will be placed on updates to how online students taking Introductory Accounting courses compared to their in-class, on-campus peers on the Comp-XM examination. There are ample future research opportunities in this area. The authors will research about online supplemental information for students taking introductory courses through the online program and whether *Quality Matters* has incremental benefits to online accounting courses.

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