LEVERAGING SHARED EXPERIENCES AND REAL WORLD FINANCIAL STATEMENTS TO ENGAGE INTERMEDIATE ACCOUNTING II STUDENTS FOR DEEPER LEARNING

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Abstract

In this paper a learning activity is proposed that requires students to identify aspects of corporate annual reports related to the learning objectives being covered throughout an Intermediate Accounting II course through frequent quizzes, bringing life to financial statements and note disclosures, from one learning objective to the next. The quizzes become a framework to build learning momentum by repeatedly reviewing the basic attributes of financial statements, refreshing prior learning materials, and adding new content from current course materials, all while reviewing current events inherent with global, political, and economic challenges. Students report their learning is positively
impacted by bridging course materials to the real world through quizzes, supporting the efficacy of this pedagogy.

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**INTRODUCTION**

When students take an Intermediate Accounting II course, concepts can seem disjointed, further complicating some of the most difficult topics in the accounting curriculum. This problem makes gaining learning momentum challenging, without more contextual materials beyond the textbook, which provides mere snippets of financial statements and note disclosures for each topic. A quiz-based learning strategy is proposed herein to fill this gap by using real world experiences through annual reports, to engage students and deepen learning.

Prior research shows corporate annual reports have been used in Managerial Accounting courses to develop mini cases aligning with learning throughout the course (Bamber & Bamber, 2006). Corporate annual reports are also used for situational projects, specific topics or in a capstone-learning context (Ashbaugh & Johnstone, 2000; Gujarathi, 2019; Stuart & Karen, 2003; Taylor et al., 2001; Williams & Koch, 2004; Williams, 2005). For example, Christ (2002) created a learning activity where students were required to re-perform summary journal entries to recreate real world statements, using annual reports, which was shown as an effective teaching strategy.

Using financial statements in learning activities can enhance depth of learning, student satisfaction and engagement. Deep learning is
usually necessary to develop critical thinking and problem-solving skills, which can be supported by an academic environment “demonstrating the relevance of the course”, as perceived by the student (Trigwell & Prosser, 1991, p 263). In a 2015 study, award-winning accounting faculty, recognized for their excellence in teaching, determined that the “accounting practice environment” was a key driver of teaching effectiveness, with relevance and up-to-date practice developments as its core (Wygal & Stout, 2015). Examples given included using different real-world financial statements in each class, and the importance of connecting course materials to real organizations. Bobe & Cooper’s (2020) study determined that “providing practical examples and applications” (p. 2116) is an important attribute of effective accounting teachers, and effective teaching leads to deeper learning, and deeper learning leads to higher overall student satisfaction.

Student engagement also “plays a pivotal role” in higher-education academic success (Li & Xue, 2023 p. 2). A 2019 research study determined four groups of variables business students perceived as positively influencing their engagement—"student connection, pedagogical methods, classroom environment, and student motivation" (p. 1). The four groups included 34 engagement elements that the students responded to using a five-point Likert scale. In the student connection category, students’ level of agreement was highest for “feeling connected to course content” (p. 6) over other factors such as group work and writing projects. In the pedagogical methods category, “discussing real-world cases and ‘current’ examples in class” and “relevant course material” (p. 6) were deemed important, ranking higher than field trips and role playing (Haug, et al, 2019).

Deep learning is described as “understanding and developing personal meaning”, which is attained through changing a person’s perspective by “integrating new material into pre-existing knowledge”. This is contrasted with surface learning resulting in “no or little understanding”, being derived from traditional learning experiences such as task requirements.
and memory (Turner & Baskerville, 2013, p. 2). Turner & Baskerville (2013) used an integrated learning environment, with intermittent reading assignments, textbook materials, a large real company project, and interventions including instruction and assessment. They concluded that using real company financial information, instead of just reproducing materials through exercises, was critical in students’ understanding the economic meaning of the accounting data and the concepts of the course. Moreover, feedback from students about the pedagogy suggested using the financial statements gave them confidence in their understanding of the concepts.

As experiential learning becomes more heavily used in business education, veering too far from conceptual learning raises concerns about students’ not meeting the professional competence requirements for accounting, and creating anxiety among students expected to demonstrate expert knowledge to earn a grade (Gilmore & Anderson (2012). Rodgers, Simon & Gabrielsson (2017) suggest successfully integrating a combination of both conceptual and experiential learning approaches into accounting curriculum will result in better learning outcomes, a technique they claim is currently “under-acknowledged and under-researched” (p 3). The two learning approaches, conceptual and experiential, both have similar attributes for the learner—conceptualizing, reflecting, and experiencing—but their approaches are different. Conceptual learning is deductive, starting with conceptualization, then reflection, and finally experiencing. Experiential is just the opposite, starting with the experience, then reflection, and referencing back to the concepts, with an additional attribute of application. Rogers et al (2017) suggests structuring a learning module with conceptual learning through reading materials and lecture, followed by experiential learning, providing concrete experiences through case studies or financial statements, and incorporating reflective activities to develop the connection between the concepts and experiences.
Kolb (1984) explains that learning can be acquired through conceptualizing or experiencing, and then can be transformed through reflection or application. Experiential learning theory is grounded in making learning holistic through concrete experiences, creating personal meaning, and validating concepts or ideas learned. Kolb references the origins of experiential learning in the work of John Dewey, Kurt Lewan and Jean Piaget. Dewey explains how continuity and interaction are key intertwining aspects to experience, “Different situations succeed one another. But because of the principle of continuity, something is carried over from the earlier to the later ones. As an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in a different part or aspect of one and the same world. What he has learned in the way of knowledge and skill from one experience becomes an instrument of understanding and dealing effectively with situations that follow” (Dewey, 1938, pp. 43-44). Dewey’s message is supported by Mahoney’s (2019) explanation of how knowledge can be created by developing a learner’s narrative, which evolves from the context of experience and is recontextualized through repetition to enhance learning.

In this paper, a learning activity is proposed that requires students to identify aspects of corporate annual reports related to the learning objectives being covered throughout the Intermediate Accounting II course through frequent quizzes, bringing life to financial statements and note disclosures, from one learning objective to the next. The quizzes become a framework to build learning momentum by repeatedly reviewing the basic attributes of financial statements, refreshing prior learning materials, adding new content from current course materials, all while reviewing current events inherent with global, political, and economic challenges. This pedagogy is supported by the literature review as it is relevant to professional practice and systemically integrates concrete experiences with conceptual learning materials intending to deepen learning, which is known to lead to higher student satisfaction and engagement.
The method described of integrating quizzes throughout an Intermediate Accounting II course using different companies is unique to prior published pedagogy where one company usually serves as a larger project or case for discussion (Christ, 2002; Turner and Baskerville, 2013) or more frequent case reviews were used in a Managerial Accounting context (Bamber & Bamber, 2006). And, though quizzes have been used to keep students prepared for class for years (Teaching Professor, 2012), this pedagogy is meant to enhance learning and to both develop and prepare them for higher level skills, which is important, and reported to be lacking, in the accounting profession (Wolcott & Sargent, 2021).

Hansen (2006) writes, “The call for new teaching strategies in accounting is ongoing” (p. 221) and describes problem-based learning which originated in medical schools and is purported to develop critical thinking, analysis, and problem-solving, through levels of learning. “Level 1” learning is end-of-chapter type materials that are conceptual in nature and provide the details necessary to solve a provided problem. “Level 2” learning is adding a story-telling feature to the Level 1 materials, where some decision-making needs to be made, and moves learning to the comprehension and application level. And “Level 3” requires analysis, synthesis, and evaluation (p. 222). These progressive levels follow the continuum of skill levels in Bloom’s Revised Taxonomy (Anderson, et al, 2001)—remember, understand, apply, analyze, evaluate, and create. Critical thinking is a benchmark we hope to achieve as educators. It is described as “actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (criticalthinking.org). But, “a great deal of knowledge is necessary before one can” think critically (Ravitch, 2009, p. 304). The pedagogy, described in detail in the next section, is situated at Level 2, where the company becomes the experience (real story) to apply Level 1 conceptual materials, and aligns with the “apply” and to some degree “analyze” skill level of Bloom’s Revised Taxonomy. To further explain, students will be at the application stage of Bloom’s because they
are “determining what knowledge they will use” (p. 77) in an unfamiliar situation. They will also use some analysis, “determining how the parts are related to one another and to the overall structure” (p. 79), but will not have fully mastered this skill level through the quizzes, such as to “ascertain the unstated assumptions involved in what is said”. The results section will describe the efficacy of this pedagogy, which will be followed by a discussion of how the pedagogy is a bridge from lower to higher level skills. The Teaching Notes provide examples of how professors can illicit higher Level 3 learning (Hansen, 2006) using this pedagogy, which aligns with Bloom’s higher skill levels of analyzing, evaluating and creating, which more closely resembles having attained critical thinking ability.

**Pedagogy - Corporate Quizzes**

The corporate quizzes presented in this learning strategy pose a variety of multiple-choice questions about the course topics related to the learning objectives, with the aim of applying the course materials to the real world to deepen knowledge of financial accounting and gain familiarity with financial statements for the student. Ten quizzes are deployed intermittently throughout the semester, using ten different corporate financial statements, with ten to fifteen questions per quiz.

Though the reason this pedagogy was established was to bring relevance and context to course materials, in 2020, a window of opportunity opened globally, for perhaps the first time, and maybe for the last at such a remarkable level, where accounting students are experiencing a common problem with corporations—Covid-19. Also, being new voters, students may relate to the 2020 U.S. presidential race. The different administrative decisions under Presidents Trump and Biden in recent years has had, and is expected to continue to have, a substantial impact on corporate financial statements. The events of 2020, in addition to more recent corporate challenges, which are arguably related, like supply chain disruptions, inflation, and worker shortages become apparent when putting together the quizzes. So, while students apply concepts
learned in Intermediate Financial Accounting II and prior coursework to the companies they are reviewing, they can relate world activities to the challenges businesses are facing, as they themselves face challenges for the same reason. As the literature review suggests, this presumes to engage them and create satisfaction in their education as the relevance and currency of the materials should be obvious.

The reason multiple corporate annual reports are used, instead of one corporate report throughout, is to hone the corporate material as much as possible to the content being covered as the course progresses. Also, this demonstrates that while the statements can look very different, from company to company due to such things as industries served/capital structure, etc., our conceptual framework and generally accepted accounting principles can be relied upon again and again in analyzing a company. The intention is to build confidence in the students about interpreting statements, and that course materials are relevant to their future careers.

The course and learning outcome topics generally covered in Intermediate Accounting II resemble those listed in Table 1. The most recent company chosen for the quizzes, along with the industry it serves, is shown alongside the outcome topics in the table. Course materials include relevant information on journalizing transactions, note disclosure, and financial statement presentation according to GAAP. Each company was chosen specifically to align with the learning objective topic, and the company must change from time to time, based on necessity or relevance. For example, Pier 1 Imports, Inc. announced bankruptcy proceedings in 2020, which indicated prior losses may have contributed to a deferred tax asset, a difficult subject to grasp for the “Accounting for Income Taxes” topic. Therefore Pier 1 Imports’ most recent annual report was used to apply the course materials for the income tax topics in the Fall 2020 semester. In subsequent semesters, Ford Motor Company was used for this topic, as Pier 1 Imports data was not readily available at the time of the quiz updates, presumably due to their bankruptcy
proceedings. Current and global events, such as those related to Covid-19, presidential policymaking, etc., were added if it became apparent that the company was impacted because of these events. This was done to engage students, as these things may be something they can relate to. For example, Zoom’s financial results showed a marked improvement during the pandemic with remote working and distance learning—and their stock price reflected this. But when distance learning was no longer in as much demand, financial growth was not as strong, and the stock price dropped substantially, with no stock splits on record. So, questions were added to that quiz, focusing on the growth in profits during the past few years and the stock price rollercoaster. A link was provided to investigate the stock price activity.

The learning outcome topics presented in Tables 1 and 2 do not include verbs, but general topics, as the verb would be “apply” in each instance, so each learning outcome topic would have a learning outcome like this, “Students will apply [the learning outcome topic stated] concepts to a real world company using the most recent corporate annual report”. This course activity provides application of the concepts of the current course and prior financial accounting courses. It may become increasingly more important to reference prior learning materials, in later courses, as e-books with a short shelf life have largely replaced hard copy texts, making prior learning references more distant to the learner.

A motivation behind creating the quizzes was to breathe life into some of the topics. For example, teaching and learning note disclosures in Intermediate Accounting II seems lackluster in comparison to the main content of the coursework because it seems repetitive and mundane. Moreover, learning materials often lack quality, problem-based examples for note disclosures, and therefore they are hard to teach. Descriptions can get wordy, and the wave of a hand could easily go along with the words, “and then there are the notes”. The disclosure notes are an important component of the financial statements, and they are growing,
Despite concerns raised to governing bodies of the profession (Cazier & Pfeiffer, 2016).

It is not uncommon to see annual reports (or 10-K reports) used in pedagogy, as Bamber & Bamber (2006) and Christ (2002) demonstrate. What makes this pedagogy unique is the incorporation of different corporate annual reports throughout the curriculum in an Intermediate Accounting II course, with successive assignments continually referring the course content back to the statements. The use of financial statements in other courses has been for the purpose of a deeper dive through project or case analysis work, as a major undertaking within the course (Christ, 2002), instead of intermittent assignments. Though Bamber & Bamber (2006) used corporate reports intermittently throughout a course, that course was for a managerial accounting course. Moreover, the quizzes incorporate recent events that the student can relate to personally, for example, Covid19 and the U.S. Presidential Race. Though the U.S. Presidential Race, specifically, does not appear on the quizzes much currently, it will become more relevant when analyzing future data if tax rates change again so soon after the TCJA tax reform, with a different political party in office. Learning experiences such as these may build general business acumen in students as they are made aware of the strategic decisions management makes to face challenges presented, while engaging students on a higher level, as they may feel more satisfied with their learning environment.

**Results**

A survey was conducted for those students completing the Intermediate Accounting II course, where the company quizzes were assigned. The purpose of the survey was to collect data about the usefulness of the quizzes as a learning strategy to put the course materials into context, which was why the assignments were originally deployed. Since current events—Covid-19, presidential elections, etc.—also were put into the quiz
to engage students, questions were included to see if students observed the way those events impacted companies.

Table 2 shows survey results over the five semesters combined, from Fall 2020 to Fall 2022, from 65 student respondents. Surveys were conducted via Survey Monkey, and were both voluntary and anonymous, with the population being all Intermediate Accounting II students. The entire population of students, which totaled 90, were invited to take the survey, so the response rate was 72%.

Overall, students were in agreement that the quizzes helped them understand how economic and social decisions by policymakers can impact companies financially (86%), and how global events can affect companies differently (91%). Most students perceived the quizzes helped them understand the importance of note disclosures (91%), and to better understand the individual financial statements (91-92%). They believed the quizzes added depth to their understanding of financial accounting (92%), and their responsibilities as an accountant to the public (86%). All students agreed the time allowed for the quizzes was reasonable (100%). Students agreed that compared to other assignments, the quizzes helped them learn financial accounting in context (85%), and they were a valuable learning experience (97%). The responses to question 12 on the survey gets to the root of one of the main reasons the quizzes were deployed and shows that it was successful in helping students understand how the learning materials in the class relate to the preparation of financial statements in the real world (95%). Students agreed that the quizzes helped them interpret the financial condition of the companies they were viewing (85%). And overall, the students believed the quizzes helped them more fully understand how to prepare financial statements according to GAAP (82%).

The above results suggest this learning activity provides the contextual experience necessary to gain learning momentum in an Intermediate Accounting II course. The students responses, together with the literature review, suggests student learning was deepened and they likely sensed
satisfaction and engagement due to the relevancy and currency of the course materials. This conclusion is supported through the favorable response of 97% of the 65 students responding that the quizzes were a valuable learning experience. It’s not completely known what aspects of the quizzes made the students respond so strongly about their value. However, a few comments directly from students, either in class or via email, indicate it was due to relevance of course materials to the real world and their gaining confidence in their knowledge:

- “I really enjoyed your class, and I thought the company quizzes were very helpful and interesting. They felt very ‘hands on’”.
- “I’m getting comfortable reading financial statements.”
- “...applicable to what you need to know in the real world versus the textbook.”

The tone of these explicit positive comments about the quizzes—“enjoyed”, “hands on”, “comfortable”, “applicable to what you need to know”—supports the conclusion that students were satisfied with their learning environment.

Table 3 shows survey results over the five semesters by delivery mode. Fall 2020 was hyflex to accommodate learning through the pandemic, where students had the option of attending class face to face following social distancing protocol, Zooming synchronously, or watching the Zoom recording asynchronously. Spring 2021 was completely online, asynchronous. Fall 2021, Spring 2022, and Fall 2022 were face to face. Overall, the average level of agreement to all questions was lowest with the fully online asynchronous class in Spring 2021, which was 84%, as compared to hyflex and face to face, which was 94% and 91%, respectively. This may be because we didn’t have the autonomy to discuss the quizzes together in class, as described in the next section. But, regardless of delivery mode, this learning activity appears to be effective from the perspective of the students.
**DISCUSSION**

This learning strategy suggests students gain depth of knowledge through the corporate quizzes and are prepared to have richer conversations that align with higher order skills for critical thinking, such as evaluating and creating. By applying their basic understanding of course materials to real world scenarios, topic by topic, lower order skills “remembering and understanding” can be bridged by this “application” to more “abstract analysis and evaluation” according to the skill levels in Bloom’s Revised Taxonomy (Anderson, et al, 2001).

Educators deploying this activity will contribute substantially to deepening students’ knowledge so they can further develop the critical thinking skills students will need early in their careers (Wolcott & Sargent, 2021), and the intellectual ability students must demonstrate to pass the more complex disciplinary content in the new CPA exam model, which is expected to be informed by the same taxonomy (Yeaton, 2020). According to the Uniform CPA Exam Blueprints effective July 1, 2021, the “application” skill level, and the one below, “remembering and understanding” covers at least 55-75% of the CPA exam content (AICPA, 2020).

This learning strategy suggests that by repeated application of course materials to new experiences, momentum of learning will progress learners toward the critically thinking ability expected by the accounting profession, which aligns with how Dewey (1938) and Mahoney (2019) describe momentum to occur. While the corporate quizzes are identified to be at the Level 2 skill level according to Hansen (2006) and the “application” skill level in the Bloom’s Revised Taxonomy continuum (Anderson et al, 2001), examples are included in Teaching Notes available from the author for reference on how the learning activities can progress to higher order skills development activities in the classroom.
Limitations and Opportunities for Quizzes
The quizzes alone should develop deeper knowledge of financial statements, related notes, and overall course learning outcomes, in alignment with Bloom’s Revised Taxonomy skill level “application” or lower. However, to develop critical thinking, additional classroom discussions or cases, referencing knowledge gained from quizzes, should be utilized to supplement the quizzes.

The efficacy presented was from the perspective of the student, and pre-activity and post-activity survey comparisons weren’t feasible due to the frequency of quizzes in the course. Over time, more student data beyond the 65 responses collected, and more details of why students answered the way they did, could support conclusions. For example, 97% of the respondents agreed that they found the quizzes valuable but knowing more details about what aspects of the learning activity helped them learn could support the pedagogy for future use.

Conclusion
Using corporate quizzes in Intermediate Accounting II provides context to students using real world financial statements which deepens their knowledge about financial accounting and shows relevance of their course materials to their future careers. Systematically integrating the quizzes throughout the course provides a concrete experience that interacts with new conceptual learning materials and pre-existing knowledge, building a framework for learning momentum.

Students’ perception of learning about financial accounting through the quizzes was positive, according to the survey results. One can assume that through their deepened knowledge and reference to real financial statements again and again, their confidence in their preparedness for their careers is heightened, which aligned with the direct feedback, “I’m getting comfortable reading financial statements.” Moreover, since dilemmas faced by businesses due to social, economic, and global events
are incorporated into the quizzes, and follow-up discussions in class or small groups can enhance learning, one could conclude that this activity can be effective to develop stronger business acumen in accounting students.

From an educator’s standpoint, I feel very positive about deploying the quizzes, which I reflect on often while updating them from year to year. Specifically, it seems apparent to me that students gain confidence in both their ability to understand financial accounting topics and the relevance of their education, which also aligns with the survey results. Anecdotally, I believe by seeing how companies navigate challenges, the students’ general business acumen is broadened. I often make comments in class about my interest in what I’m learning about the companies’ challenges, as I’m putting together the quizzes, to which students nod in agreement, suggesting they find the work interesting as well.

In closing, the results of the feedback along with the literature review, suggest that the “experience” of the real financial statements deepen knowledge of topics in an Intermediate Financial Accounting II course, while engaging students in a satisfying learning experience.

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**Web Appendix**

A web appendix for this paper is available at https://dx.doi.org/10.15239/j.brcacadjb.2023.13.01.wa05