

Addressing the AICPA core competencies through the usage of the monopoly™ board game

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Abstract

Purpose – The purpose of this paper is to examine the learning outcomes of students enrolled in an introductory financial accounting course through their experience of playing the Monopoly™ board game and map those outcomes to a selected number of individual competency types addressed in the AICPA Core Competency Framework.

Design/methodology/approach – A longitudinal qualitative analysis was performed to analyze self-reported learning outcomes collected from undergraduate students enrolled in an introductory financial accounting course. Content analysis and participant observations were utilized to inform the analysis process and derive research findings.

Findings – The findings reveal a connection between the learning outcomes and a selected number of individual competency types addressed in the AICPA Framework. The findings also reemphasize the importance of utilizing some of the basic functions and features of Excel to augment foundational financial accounting knowledge and enhance professional skills.

Originality/value – Although the use of board games in accounting education was examined in prior research, this paper provides an empirical evidence on the alignment of self-reported learning outcomes of a popular board game to a notable profession-driven framework. In addition to bridging a potential gap between the accounting education and profession, this study informs academics as to the implications of engaging students in a class activity that applies basic financial accounting and computer knowledge.

Keywords Financial accounting, Education, Monopoly™, AICPA, Core competency

Paper type Research paper

1. Introduction

The first course in financial accounting is a prominent and critical gateway to introduce students to the accounting field. In their pursuit to use creative teaching strategies to pique students' interest, educators often face challenges in their introductory classes. These challenges are twofold. First, educators struggle with an overwhelming perception of the detailed-oriented and intricate nature of financial accounting among students. Second, educators are increasingly expected to “transform” the first accounting course by introducing creative teaching strategies to elevate their students' professional skills.

This paper introduces a teaching strategy, Monopoly™[1] board game project, as a practical application of transaction analysis process and financial statements that could be supported by the use of Excel. The paper also showcases the alignment of the learning outcomes with a selected number of individual competency types addressed in the AICPA Core Competency Framework.

Based on the results of assigning the Monopoly™ as an individual project, several significant findings are revealed. The game provides better understanding of basic business activities through investing, selling, renting and trading off properties in a hypothetical real estate marketplace. Students also learn to analyze and report financial information in real



time and prepare financial statements from scratch. The project also introduces a teaching opportunity to apply the accounting equation through adopting the user's approach in recording financial transactions. Upon the completion of the project, students realize that the accounting equation is the "heart and soul of financial accounting," by gauging the impact of a single transaction on multiple financial statements. The findings also provide insights into the relevance of the learning outcomes to a selected number of competencies addressed in the AICPA Framework. In this regard, the Monopoly™ project is a practical teaching strategy that can bridge the gap between the accounting education and profession.

The remainder of the paper is organized as follows. First, a review of the literature is presented to examine prior research on the development of the AICPA Core Competency Framework and the use of the Monopoly™ board game in accounting courses. Second, the methodologies used to collect and analyze the learning outcomes are explained. Third, a detailed discussion of the project design is outlined for potential use by instructors. Fourth, the findings are explained and followed by a discussion of the research limitations and conclusions.

2. Literature review

In 1986, the Bedford Committee ([American Accounting Association \(AAA\), 1986](#)) and the [Accounting Education Change Commission \(AECC, 1990\)](#) advocated the use of creative teaching mechanisms to develop the professional skills of students enrolled in accounting courses. The Pathways Commission on Accounting Higher Education report (2012) introduced a number of recommendations to improve the quality of accounting education. In the specific context of introductory accounting courses, the report's fourth recommendation suggested that accounting educators should "develop curriculum models, engaging learning resources" (2012, p. 36), and presented an "action item" to accomplish this task by "crafting a first course in accounting that reflects the possibilities and challenges of a vibrant profession" (p. 37). This can be achieved by incorporating "engaging materials that demonstrate the role accountants play in society, questions and problems that need solving" (Pathway Commissions, p. 40). During the early stages of developing the accounting education, the [Accounting Education Change Commission \(AECC, 1992\)](#) dedicated its Position Statement Number Two to emphasize that the first accounting course can significantly benefit those students planning to join private or public organizations and make business decisions that rely on accounting information.

In April 1998, the chief executives of the largest eight public accounting firms at the time responded to the Bedford Report by publishing a white paper titled "Perspectives on Education: Capabilities for Success in the Accounting Profession" ([Perspectives on Education, 1989](#)). The paper underlined the role of the accounting education to develop a broad range of skills and drive college students' passion to pursue a career in public accounting (1989, p. 5). In another report titled "Objectives of education for accountants," the Accounting Education Change Commission (AECC) classified professional skills into three categories – communication, intellectual and interpersonal ([Accounting Education Change Commission \(AECC, 1990\)](#)). In 1998, the American Institute of Certified Public Accountants' Accounting Education Executive Committee created a Pre-Professional Competency Task Force to identify specific skills, which could guide the career paths of accounting graduates ([Foster and Bolt-Lee, 2003](#)). In July 1999, the Task Force developed the AICPA Core Competency Framework, which currently encompasses three categories of core competencies – functional, personal and broad business perspective ([American Institute of Certified Public Accountants, AICPA, 2000a](#))[2]. The AICPA Framework heeded the Pathway Commission's recommendation to connect the

accounting body of knowledge to **a map of competencies** (Action Item of Objective 4.1, Pathway Commissions, 2012, bold added).

To promote its educational functionality, the AICPA introduced a list of teaching strategies to develop individual competencies in accounting courses ([American Institute of Certified Public Accountants, AICPA, 2000b](#)). These strategies include the introduction of “group learning-teamwork and drama.” Drama is defined as “a representation of real-world event(s) in a reduced, compressed form; role playing, simulations, games, novels, experimental and market method.”[3] Following this suggestion (and the Pathway Commissions Report), the incorporation of a game-based learning activity, represented by the Monopoly™, could be integrated into introductory financial accounting courses.

The use of Monopoly™ board game in financial accounting courses was widely discussed by accounting researchers. [Knechel \(1998\)](#) supported the use of the game as an effective method to illustrate the journal entry system in introductory financial accounting courses. [Albrecht \(1995\)](#) underscored the importance of using simulation games, such as the Monopoly™ in financial accounting, by adopting an investment approach to increase “the user emphasis and student participation” (p. 129). [Tanner and Lindquist \(1998\)](#) supported Albrecht’s work by examining the positive impact of the game on improving students’ academic performance and perceived attitude towards financial accounting. [Kober and Tarca \(2002\)](#) highlighted the efficacy of using the game to motivate students and facilitate the learning process in large intermediate accounting course setting. [Shanklin and Ehlen \(2007\)](#) showcased the potential of the game to simulate business activities by underscoring the value of interpreting accounting information for decision making purpose. In a comparable and modified version of the traditional game, Game of Life™, [Nitkin \(2011\)](#) asserted that the application of financial transactions, business activities and cash flows can be facilitated by the game.

To augment the delivery of game-based learning activities, the Pathways Commission report (2012) also recommended *the use of technology* to transform the learning experience. As part of this initiative, significant efforts were concerted to provide course material that promotes “project-based learning [. . .] and takes advantage of technology” (p. 88). The Association to Advance Collegiate Schools of Business’s A7 standard stated that “consistent with mission, expected outcomes, and supporting strategies, accounting degree programs (should) include learning experiences that develop skills and knowledge related to the integration of information technology in accounting” (p. 3). Prior research supported the usage of spreadsheet applications in financial accounting courses. In their study of using spreadsheet application in an intermediate accounting course, [Marriott and Mellett \(1994\)](#) reported that “compared with manual methods [. . .], the spreadsheet provides increased computation accuracy” and elevates students’ competitiveness in the job market (p. 297). [Waller and Gallun \(1985\)](#) indicated that accounting hires at large accounting firms rely primarily on using spreadsheet applications. Their research further revealed that the use of computer applications is perceived as a pivotal employment attribute by large accounting firms. Based on an experimental research conducted in one of his financial accounting courses, [Marriott \(1992\)](#) denoted that the integration of Excel into accounting curriculum meets the demand for future professionals who have strong knowledge of spreadsheet applications. [Ragland and Ramachandran \(2014\)](#) concluded that basic knowledge of Excel (e.g. summation, multiplication) is one of the primary technology/computer skills required by accounting recruiters. In a recent college survey commissioned by the Association of American Colleges and Universities, the report findings showed that employers are fundamentally concerned by the lack of [professional] preparedness of recent college graduates who do not possess strong technology skills ([Hart Research Associates, 2015](#)).

Interestingly, “Leverage Technology” is the *only shared* individual competency type among the three broad competency categories of the AICPA Framework (see Appendix 1).

Based on prior research, it is evident that the MonopolyTM game has a potential to improve students’ academic performance in the broad context of financial accounting courses. However, the literature does not provide specific indication whether the board game could be utilized to develop the skill set of students enrolled in *introductory* financial accounting courses. This is due to the fact that there is a notable lack of empirical evidence on the derived learning outcomes and the use of Excel to support the delivery of the game. The paper fills this gap by analyzing and aligning the self-reported learning outcomes with a selected number of individual competency types in the specific context of introductory financial accounting courses.

3. Method

The author used *content analysis* to analyze the learning outcomes reported by 550 students enrolled in an introductory financial accounting course at a small US university. The data was collected over the period of 5 years (Fall 2010–Spring 2015). Appendix 3 shows a sample of the “academic diversity” of students enrolled in the course. Content analysis was defined as “a systematic, replicable technique for compressing many words into fewer content categories based on explicit rules of coding” (Stemler, 2001, p. 1). In accounting research context, content analysis was used in research to draw valid inferences from texts and narratives that would communicate the outcomes of accounting activities (Frazier *et al.*, 1984; Smith, 2003; Steenkamp and Northcott, 2007). It also provides rich and meaningful opportunity for coding and categorizing data. According to Stemler (2001), *priori* coding creates categories of data prior to the analysis based on drawing information from established frameworks. To facilitate the coding process, a qualitative research analysis software program (Nvivo) was used by loading all the self-reported learning outcomes as documents (Welsh, 2002). Each student is required to turn in a list of 10 personal learning outcomes, as one of the components of a graded individual MonopolyTM project. The coding process was carried out by using descriptive codes (Miles and Huberman, 1994; Morse and Richards, 2002), where phrases, words and sentences of the learning outcomes were labeled using relevant words according to the definitions of individual competencies types in the AICPA Core Competency Framework. Axial coding method was used to systematically develop research themes (Saunders *et al.*, 2006; Strauss, 1987). Relationships and core themes were developed to reassemble the data for analytical purpose. Throughout the coding process, the outcomes were revisited to ensure that all the codes and meanings were interpreted in context. Key sentences, phrases and words were highlighted to examine their adherence to the definitions of individual competency types. Examples of codes are provided in Appendix 4. A sample of the learning outcomes was independently reviewed to verify their accurate interpretation and alignment with the definitions of individual competency types in the framework. Analyzed data was further observed to identify potential gaps. Gap analysis was performed to identify any potential differences between the competency types and the empirical evidence. The lack of alignment pointed out the irrelevance of some outcomes with the framework. To support and inform the content analysis, the researcher also used participant observation method. LeCompte *et al.* (1993) described participant observation as “a method relying on watching, listening, asking questions, and collecting things.” (p. 196). The researcher followed the suggestion of Schwartz and Schwartz (1955) by striking a balance between actively participating in the group discussions of the subjects (students) and observing their behavior to achieve the purpose of reporting valid data. Schensul *et al.* (1999) noted that participant observation is filtered through the researcher’s interpretation of the participants’ behavior and that the “most accurate observations are shaped by formative

theoretical frameworks.” (p. 95). Therefore, due diligence was performed to ensure the accuracy of the field notes by examining and interpreting the data as it emerged from observations and discussions. Data was further refined to determine its relevance to the research context.

4. Overview of the monopoly project

4.1 Purpose of the project

The project is assigned in a 16-week introductory financial accounting course over two classes (75 minutes/class) at a small US university that follows the semester system. The main purposes are:

- identify, analyze and record financial transactions; and
- prepare three standard financial statements using Excel application.

The project grade comprises 28 per cent of the total course grade.

4.2 Instructor preparation

During the discussion of transaction analysis process and standard financial statements, the instructor should prepare an Excel template to illustrate the steps of the analysis process. This discussion should precede the project day. To maintain consistency, the instructor should prepare a similar Excel spreadsheet that could be used as a Monopoly matrix template. The template should be posted online in advance using Blackboard platform. The matrix template is designed using the accounting equation or user’s approach and contains a list of common financial accounts, which are affected by the game transactions. A copy of the matrix template is provided in Appendix 2.

4.3 General project information

To ensure the best possible preparation for the project, general project information should be provided in the course syllabus. The researcher distributes hard copies of the course syllabus at the beginning of the semester and posts a permanent digital copy on Blackboard platform. Students are also provided with a list of the exact dates of the project (Day 1, Day 2 and due dates) in the course syllabus. Instructors should devote sufficient time to discuss project information prior to game. The game is played in groups of five to six students. The game is conducted over the course of two classes to simulate the experience of founding and running a small real-estate business. Each student should record 30 transactions (15/each class). Students are given 1 week to complete and turn in their individual projects, which comprises the following reports:

- two completed Monopoly matrix templates;
- two classified Balance Sheets;
- two multiple-step Income Statements;
- two Statements of Retained Earnings; and
- a list of ten personal learning outcomes.

4.4 Typical monopoly transactions

- If a student lands on “Mediterranean Avenue” and is interested in purchasing it (list price = \$60), a transaction should be recorded in the matrix sheet using Excel. A

transaction number is entered in the first column, and a brief description of the purchase transaction should be provided in the second column. Dollar amounts are entered as an increase of \$60 in the Land column, and a decrease of \$60 in the Cash column. All cells should be formatted to show the dollar sign (\$). If a negative dollar amount is recorded, it should be displayed in red or in parentheses. The acquired land is reported as a non-current asset in the Balance Sheet.

- If “Mediterranean Avenue” is mortgaged (mortgage value = \$30), a transaction number and description should be entered as indicated earlier. Then, dollar amounts are entered as an increase of \$30 in the Cash column, and an increase of \$30 in the Mortgage Payable column. Mortgage Payable is reported in the Liabilities section of the Balance Sheet. Mortgaged assets are reported in the Balance Sheet, but Rent Revenue is not collected/earned.

4.5 Usage of technology

The game is conducted in a traditional classroom. Therefore, students should bring their own laptops and use Microsoft Excel to enter financial transactions in the matrix template in real time. They are also required to use basic Excel functions (e.g. summation), and features (e.g. formatting cells and linking worksheets).

4.6 Modified game rules

To streamline the process of analyzing and recording financial transactions, some game rules have been modified. Here is a list of the modified rules (provided to students in the course syllabus):

- Ignore the Free Parking, Go to Jail, Chance or Community Chest cards and spaces.
- If you land on “Pass Go,” report this as “Real-Estate Consulting Revenue” which is one of the revenue sources.
- If you roll doubles, you get an extra roll. There is no limit on consecutive doubles.
- When you own all the properties in a single-color group, you may purchase houses or hotels to put on that property. Prices are stated on the land deed. This will increase the rental value of the property. Houses and hotels can be sold back to the bank at half their purchase price.
- If you run out of money, and cannot sell property to cover your debt, you will declare bankruptcy and opt out of the game. Your property will be transferred to the party to whom you owe money.
- Except as modified above, standard Monopoly rules apply. If you are not familiar with the standard rules of the game, visit the following website: www.hasbro.com/common/instruct/Monopoly_Vintage.pdf.

5. Findings and analysis of the core competencies addressed in the monopoly project

The AICPA Core Competencies Framework provides three broad categories of competencies – functional, personal and broad business perspective. A list of the definitions of the core competencies is provided in Appendix 1. These definitions are used to map the learning outcomes to individual competency types. Based on the qualitative analysis of learning

outcomes, research findings reveal a significant connection between the outcomes and a selected number of individual competency types.

5.1 Functional competencies

5.1.1 *Decision modeling.* Students must use strategic and critical approaches to decision-making to make useful business decisions. For example, a student landing on non-owned property should promptly decide whether he/she should buy it. This process requires the consideration of the following:

- available cash;
- rental value;
- the option to monopolize single-colored properties; and
- the desire to monopolize the entire board.

Student comment: "Always be brainstorming deals you can make with your opponents."

Student comment: "Before you make a deal with someone, think it through and do the math."

5.1.2 *Measurement.* After discussing practice problems on transaction analysis process, students should apply the steps of the process in the game. This task involves identifying relevant financial information that should be measured (e.g. which property should be purchased) and determining the right way to measure it (e.g. purchase/list price = historical cost). Students may trade off properties by writing off the traded property at its purchase price and recording the acquired property at its fair market value. Gain or loss on the trade should be also determined and recorded correctly in the matrix sheet.

Student comment: "The project is useful for showing the difference between liabilities and owners' equity, which was something I was initially confused on."

Student comment: "I learned how to record a profit on land, which was nice because this is a common occurrence that may affect businesses in the real world as well."

5.1.3 *Reporting.* The game provides a great learning opportunity to report financial information in proper and neat form. This task is facilitated by the use of Excel to link the cells containing the ending balances of all the accounts in the matrix template to the relevant accounts in financial statements. Student should follow the reporting standards for classifying the right assets in the right category (e.g. current and non-current assets). Students should also classify and report different types of Revenues (Rent Revenue or Real-estate Consulting Revenue) and Expenses (Selling or General and Administrative).

Student comment: "I learned how to differentiate between rent revenue that would go under other revenues and one that would go under sales revenue."

Student comment: "It is very important to document the transactions as they happen [in real time] instead at the end of a given accounting period."

Student comment: "I learned how to classify luxury tax."

Student comment: "The satisfaction that comes from balancing a classified balance is motivation enough to do so, but from a purely utilitarian viewpoint this project really solidifies the importance of correct financial statements"

Student comment: "I learned that Land and Other Investments, even though you pay money for them, are not classified as expenses."

5.1.4 Research. As mentioned earlier, students are provided with comprehensive project information in advance, including the modified game rules. Some students might need further information on the traditional rules, so they are encouraged to visit the game maker's website provided by the instructor. Some students might look up all the possible game tricks and tips over the Internet.

Student comment: "The nit-pickiness of accounting is necessary. There are no shortcuts in accounting. When it comes to a big corporation, it is important to have all the details and knowledge of the accounts before attempting to make the statements because if you attempt to make them on the fly and 'go with it' you will make mistakes and it will take you longer to fix them than it would have to simply to do it right the first time."

Student comment: "I saw how easy it would be for [an] advertisement to mislead you if you did not know anything about accounting."

Student comment: "Knowing and predicting how a transaction or trade may affect my business is important."

5.1.5 Leveraging technology. This is the only shared individual competency type among the three broad categories of the AICPA Framework. Therefore, the interpretation of its relevance should apply to the other categories. The usage of Excel is mandatory. Excel facilitates the efficient and timely bookkeeping process, which is an essential component of the transaction analysis process. It is important to reiterate that the project does *not* aim to teach sophisticated features using Excel (e.g. If function), but rather it intends to familiarize students with the basic functions and features of Excel, which are appropriate to the level of difficulty of a project at an introductory accounting course. Based on the researcher's observations over the course of 5 years, some students might lack basic knowledge of Excel. For example, many non-business students are enrolled in the course to fulfill their degree requirements, without having any background on using software applications (except for Word). However, all business and accounting students are required to take an introductory course on data analytics which covers fundamental Excel topics. Due to the disparity of Excel knowledge, the project provides a learning opportunity to teach the basics of Excel regardless to students' preparation in that regard. However, if students express concerns regarding their Excel skills, they are advised to contact the instructor during the office hours (or via email) or seek the assistance of tutors working at the university's technology services.

Several students advocated the significance of using Excel to record financial transactions and prepare standard financial statements. They denoted its efficiency to report accurate information in a neat and organized form, which further reinforces their reporting competency level.

Student comment: "Excel is probably the most important tool an accountant can have. It is much easier to format the needed documents (financial statement) and make them aesthetically pleasing. However, it takes more time to just plug in the numbers from the matrix sheet."

Student comment: "I developed my Excel skills. I learned how to use the SUM function and change font colors to make the presentation of the sheet good."

Student comment: "It is much more trustworthy to rely on Excel's addition and subtraction functions, as humans are far more likely to have an error (we almost never had the money we were supposed to have at the end of the day)."

Student comment: "The 'SUM' function in Excel along with other features make Excel an excellent tool for accounting-related work."

Student comment: "Linking the cells to previous worksheets, as opposed to simply retyping the numbers, makes it much easier to develop a spreadsheet that is cohesive and easy to make changes if you catch an error in your early work."

Student comment: "Having a background in Excel and its functions, specifically the SUM function and connecting cells is extremely useful for managing both time and the spreadsheet."

5.1.6 Risk analysis. While playing the game, students acquire a nascent understanding of the risks involved in purchasing too many or too few properties. They often assess the strength of their financial position and other players striving to monopolize the board. They might decide to buy a few properties, fearing the risk of running out of Cash and declaring bankruptcy. As they negotiate business deals, students should also assess the risk of offering many concessions. For example, students might give up highly valued properties and pay additional Cash to buy another player's desirable property, which may or may not yield a rewarding return on the investment.

Student comment: "Greed is good. It just has to be done in moderation. When used properly, it gets you more than what others would have gotten because you did not settle. The flipside of that is that if you are too greedy, you will go belly up because you cannot eat money."

Student comment: "I learned the values of investing wisely."

Student comment: "Don't be afraid to be ruthless in the game, and in real life."

6. Personal competencies

6.1 Problem-solving and decision-making

Students should determine which accounts are affected based on the transaction(s) recorded in the matrix template. This task tests their knowledge to identify any errors in recording transactions. When the accounting equation is imbalanced, students are forced to identify the difference in the dollar amounts and make the required correction before they proceed to the next transaction. In some sophisticated transactions, students record transactions affected by property tradeoff, which is not addressed extensively in the textbook. Students learn the essence of making a wise decision before engaging in any property tradeoff. For example, a player intending to trade off a property should anticipate the other player's response to the offer and brainstorm possible counter-offers to facilitate the trade. In other situations, students should decide to either pay a fixed amount of Income Tax as stated on the board or pay a percentage of the Cash on hand. Based on the researcher's observations, students gradually gain experience after Day 1 of the project. For example, they realize that railway and railroad companies generate higher return on investment than others. Lucrative properties are often sold out quickly, so an interested buyer might approach the property's owner by offering him/her a good deal to sell. In fact, some students are aware of this fact and start acquiring all the railroads and railways properties on Day 1. They eventually collect higher rents and charge high selling prices when these properties are traded off later in the game.

Student comment: "I improved my skills in identifying problems in my sheets that lead to imbalance and fixing them."

Student comment: "Check, Double Check, and Triple Check your work, especially when you are trying to root out a mistake."

Student comment: "I saw the importance of having your statements independently checked."

Student comment: "A loss on trade worked out in my favor due to gaining a monopoly, but you have to be smart about what you trade."

6.2 Interaction

Some students showcase a competitive streak, so they are advised to maintain a sense of sportsmanship. Students are encouraged to acquaint themselves with the rules of the game in advance, so their interactions focus on communicating useful information and negotiating deals. In this game, exercising attentiveness is crucial because it allows students to gauge their peers' thought process and strategize accordingly. For example, players might have varying non-educational/personal interests that range from acquiring the highest number of properties to accumulating the largest Cash balance. Finally, the game elevates the level of interactive skills, which serves as a catalyst in 'breaking the ice' on Day 1 and paves the way to facilitate future negotiation.

Student comment: "Negotiation and personal interaction can greatly help or harm your business when attempting to trade."

Student comment: "It benefits to be proactive when attempting to trade properties, because after one player gets a monopoly, others are less likely to trade for fear of more monopolies occurring."

6.3 Communication

The project develops student's oral communications skills. Players within the same group are expected to communicate effectively with each other to exchange Cash, trade off properties or borrow money from the bank (designated to a particular student by choice). In addition, students are expected to hone their written business communication skills to report accurate information. For example, students should provide summarized information of each transaction in the transaction column in the matrix sheet, identify the affected accounts and report the dollar amounts paid or received. Also, given the fact that the learning outcomes are an essential component of the project, students are compelled to articulate their personal thoughts and perceptions. Finally, the game provides a friendly environment for fostering personal communication and building personal networks.

Student comment: "Communication within the group is key. When you work with a group of people who are willing to work cohesively, the individual project begins to become less daunting."

Student comment: "Ask questions. Asking a question that may have an answer so simple that you feel 'stupid' is important if you don't ask then the mistake will compound later on in the spreadsheet."

7. Broad business perspective competencies

7.1 Strategic/critical thinking

The game improves the student's ability to identify relevant financial information and develop business acumen. Students cultivate an awareness of the outcomes of their business and investment decisions. For example, students should think critically to determine the difference between the value of investing in certain properties and the potential return on their investment. Students should mull their property acquisitions to avoid draining their Cash and declaring bankruptcy. If students decide to mortgage their properties, they should determine the best way and right time to repay the debt. When students apply proper time management skills, they could build hotels/houses in a single-color area to generate sizable

rental revenue. The sooner the acquisition is executed, the higher the rental revenue that could be earned, and the faster a strong financial position could be built.

Student comment: "It proves beneficial to build up assets early, as they will serve to provide revenue later in the game."

Student comment: "I learned that you need to make money to earn money, and doing that strategically is very critical. You need a good strategy, and follow that strategy till the end."

Student comment: "Trading properties is essential; diversifying your properties also goes a long way with trading. This helps give you trade value with other players."

Student comment: "Improving your properties may seem expensive, but the return is good."

Student comment: "Keep your enemies close. You always want to keep an eye on the competition."

7.2 Resource management

Students gain a great insight into the importance of allocating and managing their valuable resources. They realize that the effective use of their financial resources (e.g. Cash) to acquire profitable properties should eventually bolster their financial position. Given the limited duration of the project, students should also be cognizant of their non-financial resources (e.g. time) in their pursuit to accomplish that goal. Upon the completion of the game, students develop an appreciation of the value of time in performing business activities effectively and recording financial transactions correctly.

Student comment: "Rushing yourself along to get done faster results in more errors and longer time spent on the overall project"

Student comment: "Be patient. You won't always get good deals or be able to win property in the game. You have to patiently wait for the good deals to come."

Student comment: "I learned that although this was not real money, you need to always be aware of your financial state and where your assets."

Student comment: "As the game progresses, I noticed that I accumulated a large quantity of debt. The classified balance sheet is extremely useful for showing me where the bulk of my liabilities lie, and how debt can quickly accumulate!"

Student comment: "Make sure you're always watching the cash you have on hand. You don't want to overspend."

8. Limitations

Given the "playful" nature of the game, the researcher noticed that some students sometimes got carried away and missed recording a few transactions, which cost them many points. To develop a sense of responsibility, the researcher allocated 28 per cent of the total course grade to the project. Potential instructors might choose to modify this percentage depending on the relevance of the project to their course design and the sophistication of its execution.

Another observation on the project is the apparent lack of awareness of the game rules among a few international students. This problem can be mitigated by asking students to check online information about the game prior to the project day. Home/domestic students, who already have a game set could volunteer to play with their international classmates before the project.

Due to personal reasons, some students may not own a personal laptop, which hampers their ability to complete the project. On the first day of the project, instructors could print off copies of the matrix template and ask students to record their transactions manually. After finishing the game, students should use the university's computer lab facility to re-enter the information in an Excel spreadsheet. It is important to provide a reasonable time-window for all students to prepare and put together their reports.

A number of students may lack the experience, ability or confidence to use Excel. This problem is exacerbated when they find out that the entire project has to be done using Excel. Therefore, the use of Excel to solve practice problems is demonstrated during the lectures preceding Day 1 of the project. Instructors could also remind and encourage students to bring their own laptops to solve the practice problems. Students appreciate this hands-on approach, as they follow the instructor, receive quick feedback and create their spreadsheets. In addition, students could seek the instructor's assistance during the office hours or via email. Otherwise, they could contact the university's technology services office. Given the fact that students have all the project information in the course syllabus in advance, it is their responsibility to identify any issues that could affect their performance during the project.

The wider use of this project could be restricted at large universities, in which there is a higher number of student enrollment in introductory accounting classes. This could cause a concern to instructors who could face lengthy grading sessions! Based on the researcher's experience, the assessment/grading process is one of the most difficult aspects of executing the project given the lack of external assistance. To alleviate this concern, instructors working at large classes might reconsider the total number of required transactions or hire teaching assistants.

As in the case with any accounting course project, it is very challenging to find a learning strategy that encompasses *all* the individual competency types. The Framework is not designed to provide a mandatory list of competencies that must be fully integrated in every course project. In that regard, the MonopolyTM project did not address the personal competencies of *leadership* and *project management*. In addition, broad business perspectives competencies including the *industry/sector*, *international/global*, *legal/regulatory* and *marketing/client focus* are not addressed. The analysis did not reveal any relevance of those competencies to the objectives of the project or the learning outcomes reported by the students. However, this limitation provides a future research venue to examine them in a different learning activity or course context.

9. Concluding remarks

This paper presents and discusses a creative teaching strategy, represented by the MonopolyTM project to enhance the delivery of an introductory financial course in an interactive learning environment. The MonopolyTM project is an enjoyable and hands-on learning opportunity for students to develop their Excel skills. It also provides a practical application of fundamental accounting principles represented by the identification and recording of financial information and the preparation of standard financial statements. In addition, it simulates the experience of running a small real-estate business. As owners of their small business, students should monitor their financial performance, devise valuable strategies, communicate effectively and make useful financial decisions. Throughout the game, students might formulate wrong assumptions and make unwise decisions, but eventually they identify their weaknesses and learn from their mistakes. Upon the completion of the project, students realize that accounting is the life-blood of any business organization regardless to its size or type. Therefore, it is challenging to

foster a good understanding of the language of business without learning *and applying* the basic concepts of financial accounting. The project also provides an imperative opportunity to accounting educators to apply the AICPA core competencies in an engaging activity. Given the academic diversity of students enrolled in introductory financial accounting courses, non-business/accounting students could gain an insight into the financial operations of business organizations. Finally, this study provides a venue for future researchers to re-examine the efficacy of the AICPA Framework through its application in alternative course projects or teaching strategies. Future researchers could also examine the perceptions of the MonopolyTM game among students in small versus large universities.

Notes

1. The MonopolyTM is a registered trademark of the Parker Brothers Division of Hasbro, Inc. Pawtucket, RI.
2. An adapted version of the AICPA Core Competency Framework is provided in Appendix 1.
3. www.aicpa.org/InterestAreas/AccountingEducation/Resources/Pages/sample-teaching-strategies.aspx

References

- Accounting Education Change Commission (AECC) (1990), "Objectives of education for accountants: position statement number one", *Issues in Accounting Education*, Vol. 2, pp. 307-312.
- Accounting Education Change Commission (AECC) (1992), *The First Course in Accounting, Position and Issues Statement Number Two*, Torrance, CA.
- Albrecht, W.D. (1995), "A financial accounting and investment simulation game", *Issues in Accounting Education*, Vol. 10 No. 1, pp. 127-141.
- American Accounting Association (AAA) (1986), "Committee on the future structure, content, and scope of accounting education (bedford committee). (1986), future accounting education: preparing for the expanding profession", *Issues in Accounting Education*, Vol. 47, pp. 168-195.
- American Institute of Certified Public Accountants (AICPA), (2000a), "Vision-aligned academic framework", available at: www.aicpa.org/interestareas/accountingeducation/resources/pages/corecompetency.aspx (accessed 1 January 2017).
- American Institute of Certified Public Accountants (AICPA), (2000b), "Teaching strategies", available at: www.aicpa.org/InterestAreas/AccountingEducation/Resources/Pages/sample-teaching-strategies.aspx (accessed 1 January 2017).
- Association to Advance Collegiate Schools of Business (AACSB) (2013), *Eligibility Procedures and Accreditation Standards for Accounting Accreditation*, Tampa, FL.
- Foster, S. and Bolt-Lee, C. (2003), "The core competency framework: a new element in the continuing call for accounting education change in the United States", *Accounting Education: An International Journal*, Vol. 12 No. 1, pp. 33-47.
- Frazier, K.B., Ingram, R.W. and Tennyson, B.M. (1984), "A methodology for the analysis of narrative accounting disclosure", *Australian Accounting Review*, Vol. 12 No. 1, pp. 318-331.
- Hart Research Associates (2015), *Falling Short? College Learning and Career Success, Selected Findings from Online Surveys of Employers and College Students*, conducted on behalf of the Association of American Colleges and Universities, Washington, DC.
- Knechel, W.R. (1998), "Using a business simulation game as a substitute for a practice set", *Issues in Accounting Education*, Vol. 4, pp. 411-424.

- Kober, R. and Tarca, A. (2002), "For fun or profit? An evaluation of an accounting simulation game for university students", *Accounting Research Journal*, Vol. 15 No. 1, pp. 98-111.
- LeCompte, M., Preissle, J. and Tresch, R. (1993), *Ethnography and Qualitative Design in Educational Research*, Academic, New York, NY.
- Marriott, D.N. (1992), "The effectiveness of using spreadsheets to teach financial accounting", *Accounting Education: An International Journal*, Vol. 1 No. 2, pp. 137-150.
- Marriott, D.N. and Mellett, H. (1994), "Introducing spreadsheets into an intermediate financial accounting course: the results of a quasi-experiment", *Accounting Education: An International Journal*, Vol. 3 No. 4, pp. 297-311.
- Miles, M. and Huberman, A. (1994), *Qualitative Data Analysis: An Expanded Source Book*, 2nd ed., Sage Publications, Thousand Oaks, CA.
- Morse, J. and Richards, L. (2002), *Readme First for a User's Guide to Qualitative Methods*, Sage Publication, Thousand Oaks, CA.
- Nitkin, M.R. (2011), "Game of business: a game for use in introductory accounting", *The Accounting Educators' Journal*, Vol. 21, pp. 131-152.
- Perspectives on Education (1989), "Perspectives on education: capabilities for success in the accounting profession (the white paper) (1989)", New York: Arthur Andersen and Co., Arthur Young, Coopers and Lybrand, Deloitte Haskins and Sells, Ernst and Whinney, Peat Marwick Main and Co., Price Waterhouse, and Touche Ross, available at: www2.aahq.org/aacc/big8/cover.htm (accessed 1 January 2017).
- Ragland, L. and Ramachandran, U. (2014), "Towards an understanding of excel functional skills needed for a career in public accounting: perceptions from public accountants and accounting students", *Journal of Accounting Education*, Vol. 32 No. 2, pp. 113-129.
- Saunders, M., Thornhill, A. and Lewis, P. (2006), *Research Methods for Business Students*, 4th ed., Prentice-Hall, Upper Saddle River, NJ.
- Schensul, S., Schensul, J. and LeCompte, M. (1999), *Essential Ethnographic Methods: Observations, Interviews, and Questionnaires, (Book 2 in Ethnographer's Toolkit)*, AltaMira Press, Walnut Creek, CA.
- Schwartz, M. and Schwartz, C. (1995), "Problems in participant observation", *American Journal of Sociology*, Vol. 60 No. 4, pp. 343-353.
- Shanklin, S.B. and Ehlen, C.R. (2007), "Using the monopoly™ board game as an efficient tool in introductory accounting instruction", *Journal of Business Case Studies (Jbcs)*, Vol. 3 No. 3, pp. 17-22.
- Smith, M. (2003), *Research Methods in Accounting*, Sage Publication, London.
- Steenkamp, N. and Northcott, D. (2007), "Content analysis in accounting research: the practical challenges", *Australian Accounting Review*, Vol. 17 No. 43, pp. 12-25.
- Stemler, S. (2001), "An overview of content analysis", *Practical Assessment, Research and Evaluation*, Vol. 7 No. 17, available at: <http://PAREonline.net/getvn.asp?v=7&n=17> (accessed 1 January 2017).
- Strauss, A. (1987), *Qualitative Analysis for Social Scientists*, Cambridge University Press, Cambridge.
- Tanner, M.M. and Lindquist, T. (1998), "Using monopoly™ and teams-games-tournaments in accounting education: a cooperative learning", *Accounting Education: An International Journal*, Vol. 7 No. 2, pp. 139-162.
- Waller, T.C. and Gallun, R.A. (1985), "Microcomputer competency requirements in the accounting industry: a pilot study", *Journal of Accounting Education*, Vol. 3 No. 2, pp. 31-40.
- Welsh, E. (2002), "Dealing with data: using nvivo in the qualitative data analysis process", *Forum: Qualitative Social Research*, Vol. 3 No. 2, available at: www.qualitative-research.net/index.php/fqs/article/view/865/1880 (accessed 1 January 2017).

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