AN EXAMINATION ON THE EDUCATIONAL AND TRAINING REQUIREMENTS OF PROSPECTIVE CERTIFIED PUBLIC ACCOUNTANTS: THE REDESIGN OF THE ACCOUNTING CURRICULUM

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Abstract

The purpose of this paper is to examine the educational and training requirements of prospective certified public accountants (CPA) and the overhaul and redesign of accounting curriculum at U.S. colleges and universities. A survey of accounting students revealed that the extra education was essential for passing the CPA exam (Reckers, 2006). Although the AICPA’s 150-hour rule did not directly address the accounting educational qualification of a Uniform CPA candidate, all the 50 states, and the American Samoa, the District of Columbia, Northern Mariana Islands, and Puerto Rico, Quam now require CPA candidates or licensure for the CPA designation to have at least 150 credit hours of education (AICPA, 2013). According to the AICPA (2013), the educational requirements for CPA licensure in the U.S. Virgin Islands indicate that the candidate must have a diploma from a 4-year high school or a diploma from a recognized college or university, and that the candidate must also complete 30 or more semester hours in the study of accounting, economics, business law, and finance of which the 20 hours must be in accounting. The imbalance of supply/demand was especially greater in Florida where more than 2,300 students took the CPA exam under the old rule. According to Reckers (2006), only 12 candidates met the 150-hour rule requirement in Florida before it was implemented in 2000. Candidly, the implementation of the 150-hour rule in 2000 increased the success rates of CPA candidates in Florida and Utah (Reckers, 2006).
The purpose of this paper is to examine the educational and training requirements of prospective certified public accountants (CPA). This paper also advocates the overhaul and redesign of accounting curriculum at U.S. colleges and universities. For this reason, the redesign and overhaul of accounting courses should include in information technology, international accounting, ethics, and oral and written communications. Consequently, the redesign of the accounting curriculum will enhance the success rates of CPA candidates, the offering of similar accounting subjects across business schools, and preparing accounting graduates to meet the changing dynamics of employment in professional accounting.

During the last century, the accounting profession debated the educational and training requirements of certified public accountants (CPAs). In the mid-1980s, employers of accounting graduates and academicians were concerned about the competency level of accounting graduates (Bui and Porter, 2010). Subsequently, Munter and Reckers (2009); Brown and McCartney (1995); Hurt (2007)); and Albrecht and Stack (2001) have called on accounting educators to make adequate improvements in the perceived deficiencies of accounting graduates.

In retrospect, the AICPA’s approval of the 150-hour rule in 1989 did not specifically address the types of courses that accounting majors should take beyond the minimum credits that are required for an undergraduate accounting degree. Furthermore, the level of accounting education as well as courses and topics from one accounting program to the other continues to differ considerably. Correspondingly, some business schools have redesigned their entire accounting curriculum with the hope of increasing the mastery proficiencies of accounting majors (Hyman, Superville, Ramsey, and Williams, 2005; DeFelice, 2010).

A survey of accounting students revealed that the extra education was essential for passing the CPA exam (Reckers, 2006). While the National Association of State Boards of Accountancy (NASBA) and the AICPA have called for changes in the accounting curriculum for CPA candidates, a significant number of accounting educators and practitioners have rejected a proposal to revise the accounting curriculum (Reckers, 2006). Although the AICPA’s 150-hour rule did not directly address the accounting educational qualification of a Uniform CPA candidate, all the 50 states, and the American Samoa, the District of Columbia, Northern Mariana Islands, and Puerto Rico, Quam now require CPA candidates or licensure for the CPA designation to have at least 150 credit hours of education (AICPA, 2013). According to the AICPA (2013), the educational requirements for CPA licensure in the U.S. Virgin Islands indicate that the candidate must have a diploma from a 4-year high school or a diploma from a recognized college or university, and that the candidate must also complete 30 or more semester hours in the study of accounting, economics, business law, and finance of which the 20 hours must be in accounting.

Accounting graduates rushed to take the CPA exam before the AICPA’s implementation of the 150-hour rule in 2000 (Reckers, 2006). The imbalance of supply/demand was especially greater in Florida where more than 2,300 students took the CPA exam under the old rule. According to Reckers (2006), only 12 candidates met the 150-hour rule requirement in Florida before it was implemented in 2000. Candidly, the implementation of the 150-hour rule in 2000 increased the success rates of CPA candidates in Florida and Utah (Reckers, 2006).

In order to increase the passing rates of first-time CPA examination candidates and to ensure that accounting graduates are meeting the challenging demands of the workplace, high priority should be given to the redesign of the accounting curriculum. Consequently, the following research questions will seek address this endeavor:
1. Does the disparity between the CPA examination content and the accounting curriculum significantly contribute to high failure rates of first-time CPA examination candidates?

2. Are accounting majors adequately prepared to meet the challenges demands of the workplace?

3. Should international accounting be included in the redesign of the undergraduate accounting curriculum?

4. Should accounting ethics be taught exclusively by accounting faculty?

The formulation of research questions on the need of revamping the accounting curriculum is vitally important to the investigation and the findings of the research hypotheses. As a result of this critical assessment, the following hypotheses are depicted:

H1o: There is no statistically significant difference between the high failure rates of first-time CPA examination candidates and the disparity between the CPA examination content and the accounting curriculum.

H1a: There is a statistically significant difference between the high failure rates of first-time CPA examination candidates and the disparity between the CPA examination content and the accounting curriculum.

H2o: Accounting majors are not adequately prepared to meet the challenges demands of the workplace.

H2a: Accounting majors are adequately prepared to meet the challenges demands of the workplace.

H3o: International accounting should not be included in the redesign of the undergraduate accounting curriculum.

H3a: International accounting should be included in the redesign of the undergraduate accounting curriculum.

H4o: Accounting ethics should not be taught exclusively by accounting faculty.

H4a: Accounting ethics should be taught exclusively by accounting faculty.

The public accounting profession started in Great Britain around the mid nineteenth century, and in 1896 the State of New York passed the first legislation on the title of “certified public accountant” (Dennis, 2000, p. 97). This law paved the way on the state regulation of the public accounting profession in the United States. In 1916, the American Institute of Accountants (AIA), the predecessor of the AICPA structured the first organizational membership of the CPA profession. By 1984, the first joint model bill between the AICPA and the NASBA was published.

There are still differing requirements on the aspect of accountancy in the 50 states and Puerto Rico, the District of Columbia, Guam, Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Due to these differing requirements, the mobility of CPAs has resulted in the artificial barrier to the practice of public accounting (Shelton, Thompson, and Serrett, 2012). Research on the educational requirements of the 50 states has revealed a lack of consistency on the CPA examination requirements. According to Shelton et al. (2012), some of the states have implemented the general requirements of the National Association of State Boards of Accountancy, while other states have instituted different requirements for prospective CPA candidates and licensure.

Prospective CPA candidates are usually advised to adequately prepare for the examination. However, most of the candidates are given different views on the extent of their
practical experience and academic training (Frisbee, 1947). According to Frisbee (1947), some CPA candidates are even advised to have more training in tax, auditing and accounting studies than in non-accounting courses. Some even have advised the candidates to combine liberal arts and business management courses that include core accounting courses within the curriculum. Interestingly, a number of colleges and universities have implemented comprehensive five-year programs for the undergraduates to have thorough knowledge of accounting (Frisbee, 1957).

The understanding of knowledge-based depreciation would significantly influence the structuring of business law and tax courses so that the passing rates of accounting graduates can increase. For example, the scheduling of macro and micro-economics courses for accounting undergraduate students in the sophomore year and accounting information in the junior year could be the contributing factors of the candidate failure rates in these two important parts of the CPA examination. The minimization of knowledge-based depreciation could contribute significantly to the structuring of accounting programs; thereby paving the way of program alteration in the course content and instructional delivering methods (Kohen and Kipps, 1979). While it is a generally accepted theory that the passage of time places significant role in the knowledge depreciation of a learner, program improvements and increase faculty productivity could also increase the student knowledge and retention (Kohen and Kipps, 1979). Thus, in order to improve the proficiency of accounting graduates, it is imperative for business schools to have courses in information technology, forensic and fraud examination, international accounting. In addition, more courses should be taught in finance, and oral and written communication beyond the undergraduate general education requirements.

Information technology (IT) has been a prominent force in business and non-business productivity. IT, defined as the use of hardware and software, has greatly influenced the production and performance of products and services, respectively. Thus, IT continues to have a leadership role in manufacturing and distribution of financial and non-financial data across businesses. Bagranoff et al. (2005) argued that companies interpret their success or failure rates squarely on the workers’ use or misuse of information. For example, effective use of accounting information should be accurate and that is properly disseminated to stakeholders (Bagranoff et al. 2005).

The Bedford Report highlighted how the development, disclosure and collection of data should be understood (AAA, 1986). In addition, the Bedford Report addressed the importance of how future accountants should understand the design, nature and implementation of information systems.

The business environment continues to use information technology (IT) as the primary driver of change and few business organizations have escaped the sudden advances of IT processes and protocols. The use of IT has drastically changed the structural and operational functions of business enterprises (IFAC, 2003). For example, the exchange of transactional data in real time between businesses has now allowed efficient dissemination of data. Furthermore, the use of XBRL allows business entities to share information via the Internet (e-commerce), perform automatic inventory updates, centrally coordinate databases, and use enterprise resource planning (ERP) tools to organize financial and operational functions.

Though recent progresses in IT have elevated business processes, the accounting profession continues to face several integral challenges. With the inexpensive development of software for the dissemination of tax returns and financial information, the demand for accountants continues to decrease dramatically (Albrecht & Sack, 2001). Candidly, accountants are now required to be knowledgeable in information technology as a consequence of performing
non-rudimentary work (IFAC, 2003; Jackson and Cherrington, 2002). The current business
environment requires prospective employees to be proficient in databases, computer operating
systems, groupware and spreadsheets. Thus, without the mastery of computer protocols, it
would be practically impossible for accounting graduates to effectively perform in the current
business environment. Additionally, a professional accountant is now expected to be
knowledgeable in the design and support of the business information systems. Unfortunately,
the rapid technological and structural organizational changes have made it increasingly difficult
for accountants to efficiently render their services (IFAC, 2003).

The apparent consensus of requiring professional accountants to have IT skills does not
specifically address the IT skills that are needed to be taught in the accounting curriculum.
However, in 1995, the International Federation of Accountants issued the *International
Education Guide* (IEG) on specific IT skills that are required for accounting majors (IFAC,
1996). Additionally, the AICPA’s Technology Curriculum and Competency Model Tax Force
agreed that the memorandum of the (IFA) were profoundly applicable to accounting professional
education in the U.S. According to IFAC (2003), the Technology Curriculum and Competency
Model Tax Force have provided the following IT competency and knowledge requirements that
professional accountants are required to be equipped with:

1. A general IT knowledge in business systems
2. A set of knowledge on IT related controls
3. A set of competency in IT related controls
4. A set of user role competency; and
5. A set of role-related competency relative to as IEG 11 designer, evaluator or
   manager.

The IEG study revealed that at least two courses should be taught on competencies and
skills in the above three noted areas and that competencies and skills should cover related roles
as a designer, evaluator or manager. The IEG 11 has categorically indicated that IT skills and
competencies should not be relegated to one or two courses, but instead distributed in a variety
of courses.

Since 1959, the American Accounting Association (AAA) has considered including
computerized data processing in accounting education (Wu, 1983). In fact, Nestman and White
(1978) suggested that that accounting information system (AIS) is an essential component of
accounting curriculum. Both accounting practitioners and educators have extensively concluded
that AIS courses increase the ability of students to proficiently understand the protocols of
information systems (Albrecht and Sack, 2000; Borthick, 1996). Unfortunately, due to continuous
evolution, widespread proliferation, and different aspects of information technology in business
processes, accounting educators are challenged in determining the appropriate AIS courses that
should be included in the accounting curriculum.

According to O’Donovan (1995), there was a source of disagreement and discussion
about the proper definition of how computers should be incorporated into the accounting
curriculum. Similarly, discussions had shifted to the clarity and relevant topics that should be
used in accounting courses (Bhaskar, 1982; Er and Ng, 1989). Collins, 1983; Collier et al., 1990;
Bromson, et al, 1994 (1987) argued that due to the changing dynamics of the business
environment, accounting information courses are needed in the accounting program. In other
words, the incorporation of accounting information systems should pay specific attention to
several curriculum proposals (William, B. C., 1991), as well as proper understanding of the
importance of AIS in business and nonbusiness undergraduate education (Armitage and Boritz, 1986; Collier et al., 1990; Bromson et al., 1994; Harrison, 1994).

Yaverbaum (1996) argued that accounting educators need to change their ideas about IT and that accounting students are better served when technology is introduced in the classroom. Ideally, Najjar (1998) examined whether there is a direct correlation between the use of technology in the classroom and the performance of students. For instance, the general argument has indicated that testing without using technology did not conclusively indicate that student performance has increased. Another argument confirmed that there was a possibility that a computerized test is more visual than a non-computerized test.

The Accounting Education Change Commission (AECC) discussed about the inclusion of international business and accounting as part of accounting education (AECC, 1990). Likewise, executive officers of major public accounting firms have supported this idea. In fact, in a document on the perspective on education, it was stated the success of a practitioner depends the general education requirements as well incorporating issues in economics and political thought. More specifically, the American Assembly of Collegiate School of Business (AACSB) recommended the inclusion and coverage of global issues in accounting courses (AACSB, 1991, p. 18).

It is of profound interest if accountants and auditors in the US are familiar with the accounting principles of other countries. The premise of this argument is that the financial statements of several US companies include consolidated data of non-US subsidiaries. Furthermore, a US company seeking external financing may be required to prepare financial statements that are in conformity with the generally accepted accounting principles of these countries. Finally, a US company may prepare two sets of financial statements that are in conformity with the generally accepted accounting principles of domestic and foreign countries. Table 1 provides valuation information on different accounting treatments. For example, before Canada adopted international financial reporting standards (IFRS), it had similar methods with the US on foreign currency translation and accounting treatments on gains and losses. With regard to recognition of gains and losses as income or adjustments in the stockholders’ equity, companies in the US and Canada had previously used either the current rate or the temporal methods. For instance, the foreign currency translation gains and losses in the UK, Australia, and the Netherlands are surprisingly similar to those in the US. In France and Germany, there were no prescribed accounting treatments for foreign currency translation gains and losses. Wu (2001) has stated that Japanese companies use the “modified temporal method” while foreign currency translation gains and losses are treated as adjustments and then disclosed as assets or liabilities in the balance sheet.

As stated by Meek (1985), topics such as transfer pricing, performance evaluations and planning should be discussed in international managerial accounting courses. Meek (1988) has advised accounting instructors to use international accounting materials in other courses. Other advocates have called for the incorporation of international accounting topics in introductory accounting courses (McClure, 1988). However, adversaries argued that students in other courses may have insufficient knowledge of international accounting (Wu, 2000). In surveys by Burns (1979) and Mintz (1980), respondents have called for the integration of international
Table 1: Accounting Topics That Can Be Integrated into Financial Accounting Courses

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<th>Topics</th>
<th>US</th>
<th>Canada</th>
<th>Australia</th>
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<th>France</th>
<th>Germany</th>
<th>Netherlands</th>
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<td>Statement Of Changes</td>
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<td>Historical Financial Statements</td>
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<td>Provisions For Bad Debts</td>
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<td>Straight-Line Depreciation</td>
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<td>Excess Depreciation Over Book Value Permitted</td>
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<td>Financial Leases Capitalized</td>
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<td>Deferred Taxes Recorded</td>
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<td>Equity Method Used For</td>
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accounting in accounting program instead of merely discussion international accounting topics in other undergraduate accounting courses. In addition, Wu (2001) argued that accounting instructors are unfamiliar with international accounting topics and that insufficient materials are available for class instructions.

In order to strengthen undergraduate accounting knowledge, Wu (2001) has suggested the incorporation international accounting topics in upper-level financial accounting courses. Accounting students should be introduced to the dimensions of international accounting that include accounting for marketable securities, goodwill, deferred taxes, segment reporting, foreign currency translation, consolidation, and inventory valuations (Wu, 2001). Instructors should be able to present the use selected countries when discussing international accounting topics in the classroom.

Due to the accounting scandals in the early late 1990s, the reputation of the accounting profession suffered a setback. More specifically, the public perceived these scandals squarely on a lack of ethics in the accounting profession. Similarly, Russell and Smith (2003) pointed their fingers at academia and depicted the following:

- If we are looking for a primary contributing course of corporate malfeasance at firms such as Enron, Equity Funding, WorldCom, Sunbeam, Arthur Andersen, and HealthSouth, we need to look no further than the classrooms at colleges and universities accounting programs that have not significantly adapted their methods of instruction or approach to accounting and management education over the last 50-60 years (p. 1).

Ever since the issuance of the Bedford Committee report in 1986, there have been calls by the American Accounting Association (AAA), the Accounting Education Change Commission (AECC), the American Institute of Certified Public Accountants (AICPA), and the National Commission on Fraudulent Financial Reporting (NCFFR) to include ethics courses in the accounting curriculum. Admittedly, subsequent to the accounting scandals in the late 1990s, there were no meaningful changes of incorporating ethics in the accounting curriculum (Blanthorne, Fisher & Kovar, 2007).

The proposed changes to Rules 5-1 and 5-2 of the Uniform Accountancy Act have been proactive in addressing the ongoing ethical deficiencies in accounting education. In inevitably, the exposure draft have highlighted discussions on the accounting curriculum and also sparked needed attention within the accounting profession. One of the major proposals of the exposure draft had suggested the inclusion of ethical conduct and professional responsibilities of CPA in proposed 150-hour curriculum. In effect, NASBA’s Board of Directors created task forces to specifically revisit the content of the 150-hour requirement for the accounting education. However, after a prolong three-year discussion, the board declined to approve the three additional hours of accounting ethics into the 150-hour accounting education requirement. Similarly, proponents of change have contended that the impact of ethical behavior of the accounting profession far outweigh the cost of including ethics education in the accounting program.
As part of this study, the researchers will examine the impact of not offering ethics to accounting students and the subsequent unethical behavior of accountants in the workplace. In addition, the study would like to assess whether accounting ethics should be offered as a single or multiple courses. In order to ensure success in the accounting profession, accounting programs should use rudimentary tools (Albrecht and Sack 2000). As a result, there has been a long standing argument that accounting programs should focus on ethics, values and integrity (Albrecht & Sack, 2000). Unethical behavior has tarnished the image of the accounting profession and during the first few years of employment, accounting graduates have continued to face ethical challenges (Chang and Leung 2006). In addition, Chang and Leung (2006) have asserted due to the reluctance of identifying ethical issues, accounting students and graduates may be unable to determine what is ethically right or wrong. Hence, accounting educators should evaluate the impact of ethical issues on the accounting profession than merely arguing the lack of resources and additional costs of offering ethics courses to not including accounting ethics in the curriculum (Bean & Bernardi, 2005). Likewise, accounting educators must further evaluate the impact of unethical behavior as a primary threat on professional accounting.

Research studies have revealed that many accounting programs continue to struggle with methodology of including accounting ethics into the curriculum (Blanthorne et al., 2007). For example, Blanthorne et al.’s (2007) study concluded that 98.1% of accounting professors affirmed that at least one course in ethics should be included in the accounting curriculum, and that the course should be three credit hours.

The accounting academic community has raised questions on who should teach ethics to accounting students. A group of proponents has suggested that accounting faculty should teach accounting ethics because it believes that accounting instructors are knowledgeable and experienced with the ethical dilemmas that accounting practitioners face (Callahan, 1980). In fact, the National Commission on Fraudulent Financial Reporting (NCFFR) and the American Assembly of Collegiate School of Business (AACSB) have agreed that accounting ethics should be taught by accounting educators and that the teaching of ethics should be offered in all accounting courses (Callahan, 1980). Candidly, the flexibility of AACSB’s standards has called for incorporating ethics as an existing or stand-alone course.

Since ethics involves moral development and reasoning, Callahan (1980) has cautioned whether accounting faculty can effectively teach ethics because the author has contended that ethics is intertwined with human actions, which in effect may be different from accounting. In addition, accounting faculty may not have the necessary training to teach ethics as a subject to accounting majors. Callahan (1980) pinpointed that since anecdotal evidence has revealed that few accounting educators are interested in teaching accounting ethics, the accounting students will have minimal exposure to ethics if ethics is taught only by accounting educators. Another argument is that accounting professors are more comfortable in teaching courses that they have technical competence in (Callahan, 1980).

More specifically, accounting faculty who lack adequate preparation in teaching ethics will most likely avoid the topic or superficially discuss it (Owens, 1983). However, a survey of accounting department chairpersons, Cohen and Pant (1989) revealed that accounting faculty is relatively qualified to teach ethics. Conversely, in another study by Carver and King (1986), 52% of respondent accounting practitioners do not believe that accounting faculty is capable of adequately addressing the ethical issues that accountants face. Langenderfer and Rockness (1989); Loeb (188), Klein (1988); and Lawson (2002) countered because philosophers are trained in the subject matter, they should be allowed to teach ethics to accounting majors.
Similarly, Klein (1998) argued that ethics teaching is more than discussing ethical dilemmas and cases, and that it would be more of a fraud if a philosopher is not allowed to teach ethics to accounting students. In addition, Klein (1998) prefers an accounting and philosophy professor to “team-teach” ethics to accounting majors.

According to Klein (1998), the use of team teaching has significantly reduced the inherent weaknesses that are associated with depending on accounting faculty to teach ethics. This pedagogical approach greatly enhanced cross-disciplinary format of disseminating course content to accounting majors. Moreover, team teaching has greatly influenced the ethical perception of business students (Ducoffe, Tromley & Tucker, 2006; Helms, Alvis & Willis, 2005; Loeb & Ostas, 2000; Wenger & Hornyak, 1999). Remarkably, team teaching has been perceived to be time consuming (May, 1980) and a considerable challenge on how it should be managed (Callahan, 1980).

In a study by Lawson (2002), 92.1% of respondent business faculty surveyed confirmed that a joint venture of other schools should assist business schools to teach ethics to accounting majors. In other words, “team-teaching” approach exposes accounting students to ethical issues in accounting increase their moral reasoning skills (Lawson, 2002). Likewise, due to the limited interest of accounting educators in ethics, Loeb (1988) accentuated that ” team-teaching” is a viable approach to teaching accounting ethics. Thus, colleges and universities should provide monetary or other incentives to faculty to accounting ethics in a “team-teaching” format.

Grimstad (1964) disputed whether ethics should be taught as a single course and that limited space has been another controversial debate of including ethics in a four-year accounting curriculum. Prior research studies have indicated that many accounting educators were reluctant to include ethics-related topics in their courses because of insufficient materials and inadequate space in an already full accounting program (Cohen and Pant, 1989; McNair and Milam, 1993; Tan and Chua, 2000).

Research studies have discovered that only 8.5% of 281 accounting chairpersons believed that there is a significant value of offering ethics as a separate course. Despite a call by the AAA’s Bedford Report and the AACSB’s Treadway Commission to have increased coverage of ethics in the accounting program (Karnes and Sterner, 1981), majority of the responding chairpersons agreed that little time has been spent in teaching ethics and that a separate ethics course should not be offered to accounting majors. In fact, a survey by Armstrong and Mintz (1989) disclosed that 7.3% of the respondent 137 AACSB schools have supported the idea of offering ethics as a separate course to accounting students. In the same survey, nine of the participating schools disclosed that that they have offered ethics to graduate students, and only one institution has offered ethics to both graduate and undergraduate students (Armstrong and Mintz, 1989). In fact, in a similar survey by Karnes and Sterner (1988), respondents established the same conclusion that Armstrong and Mintz (1989) discovered.

Unfortunately, most accounting courses do not require writing assignments (Rothenburg, 2000). Thus, upon graduation, a successful accounting major may not have the necessary writing skills that employers expect from newly hired accounting graduates. Consequently, this might hinder a new accounting graduate from drafting a letter to a vendor or even to a governmental agency on accounting or tax related issues.

In order to improve the writing abilities of accounting students, accounting departments should adopt writing across the curriculum. Colleges and universities should incorporate writing in all the disciplines instead of relying on the English department to perform the task. By assigning papers in each of the subject areas and allowing students to do peer reviews, student
writing ability will significantly improve (Ashbaugh, Johnstone, and Warfield, 2002). In addition, accounting students should be encouraged to keep a log on what they have written, and accounting instructors should allow their students to submit their assignments in piecemeal so that prompt feedback is given, instead of waiting for feedback at the end of the semester.

Previous research studies have described that writing skills are developed through repeated practices (e.g., Schank and Abelson, 1977; Tulving, 1985; Riesbeck and Schank, 1989; Boshuizen and Schmidt, 1992). In addition, other researches have concluded that relevant professional tasks are important to the development of cognitive skills (e.g., Brown et al., 1989; Collins et al., 1989; Bedard and Chi, 1993; Johnstone and Biggs, 1998). Flower and Hayes (1981) have stated that cognitive skills are integral in the long-term memory of a writer. This is especially true because long-term memory development enhances greater gains in the writing and communication skills of a writer.

Ashbaugh et al. (2002) suggested that professional writing experiences for accounting majors improve student writing skills than general writing experiences because professional writing experiences require students to adhere to relevant content and strict business conventions. In addition, research studies have confirmed direct link between professional writing demands and the ability of students to how they were able to complete previous writing assignments (Ashbaugh et al., 2002).

Other research studies have called for improvements on writing programs in higher education (Williams, 1988). Several of these research studies have called for accounting programs to improve the quality of student writing and communication skills so that their graduates can be professionally successful (Hirsch, Jr., & Collins, 188; Brown & Paapanen, 1996). According to Riordan, Riordan, and Sullivan (2000), interviews with accounting graduates and their employers revealed the need of effective writing and communication skills in the workplace. In retrospect, both the Graduate Management Admission Test (GMAT) and the Uniform CPA Examination content have now moved to meet the writing demands of the business environment.

Carson (1997) indicated that writing across the curriculum has been considered as one of the most successful educational reforms in US colleges and universities. Proponents believe that the incorporation of writing assignments explore student writing skills (Stocks et al., 1992). Riordan et al (2000) argued that writing activities in the accounting programs enable students to understand accounting procedures, improve analytical skills in accounting concepts and issues. Thus, this article is keenly interested in the restructuring of writing and oral communication programs so that accounting students can develop the skills that are required in the workplace.

Accounting education research has called for communications programs within the accounting program that is similar to the accounting program at J. M. Tull School of Accountancy at the University of Georgia (May and Arevalo, 1983). May and Arevalo (1983) stated that the J. M. Tull School of Accountancy require accounting students to complete in-class writing memoranda on accounting topics and that the students are also required to write six-to ten-page technical papers on selected topics outside of class. In intermediate accounting, the J. M. Tull School of Accountancy grade students on problem simulations and a writing expert is available to assess student writing and communication skills (May and Arevalo 1983).

Accounting faculty at Adrian College stated that the writing ability of their students has improved and that the institution should continue to have letter-writing assignments for their students (DeLespinasse 1985). In the letter-writing assignments, accounting faculty were required to use proper business formats of writing and to also assess oral communication in the
context of business client communication. Though the student writing assignments at Adrian College were graded and returned to them, the college did not provide any objective assessment on student writing (DeLespinasse 1985). However, DeLespinasse (1985, admitted that the writing assignments had positive impact on student performance and learning process. Consequently, students have expressed their interests in additional writing courses and that most Adrian College graduates have impressed their respective employers on their writing and communication skills.

Southern Illinois University at Edwardsville requires general writing assignments in managerial and cost accounting classes (Hirsch and Collins, 1988). Accounting students at Southern Illinois University at Edwardsville are also required to write memoranda to management, conduct critical assessments on their classmates’ papers, and prepare case analysis. Hirsch and Collins (1988) argued that there was no empirical test to validate the writing abilities of auditing classes at Southern Illinois University at Edwardsville. However, the university has used consultants to evaluate student writing assignments.

Riordan et al (2000) stated that the skills test from the GMAT is an objective measure of student writing ability. Research studies have concluded that inclusion of essays in quizzes and exams subjectively improve student writing skills. At Saint Leo University, writing across the curriculum is now required for all the students at the main campus, continuing education centers and center for online learning.

This research suggests that the writing initiative in the accounting curriculum should begin in the junior year, and ends with a three-month intensive writing at the end of the senior year. Since writing in a professional context is an important part of a writing initiative, accounting departments should require their students to write in a professional context and also assume that that the writing assignments are for a professional audience. For example, a writing assignment in an auditing class should take the role of an audit staff member writing an audit report to a supervisor.

In addition, there should be coordinated lectures to students that emphasize the importance of professional writing in accounting and provide writing assistance resources to students. The researchers believe that the lectures are important because they give perspectives and purposes on the importance of writing and oral communication. Another dimension is to give consistent feedback to students after they submit their writing assignments. A successful writing requirement should consider having two graders to evaluate the different dimensions of each writing assignment. In order to have continuous improvement on student writing, one grader should be an English or Journalism professor and the other should be accounting instructor. The objective is that the two-grader system provides both technical and general feedback to students on their writing experiences.

Accounting research has historically relied on research methodology for empirical testing. In addition, experimentation on controlled variables and statistical prediction on the outcomes are also used in the format of research methodology. On the other hand, the influence of social science has greatly influenced research methodology in accounting (e.g., see Chua 1986; Lodh and Gaffikin 1997; Tinker et al. 1982; Hopper et al., 1987). Furthermore, the appropriateness of a research method cannot be judged without placing much emphasis on the exploration of research questions. Conceptually, routine research questions provide greater opportunity for respondents to answer the research questions.

In the 1970s, there was a shift from quantitative (positivist) research to subjective (qualitative) thinking in accounting research (Laughlin, 1995). Thus, qualitative applied research
has gain popularity in the management accounting areas (Parket, 2012). Accounting researchers have used alternative or nonmainstream research to understand the aspects of accounting practices. In addition, different sets of steps are used to achieve the outcome of a research study.

Research methodology uses underlying sets of beliefs to guide the researcher to choose one set of research methods over another. Thus, the use of a research design is valuable in connecting research methodology. An appropriate set of research methods should be used so that proper research questions and or hypotheses are established to examine the research study. Research questions are the starting points for developing a research design (Berry and Otley, 2004; Saunders, Lewis and Thornhill 2009; Yin 2012). Ideally, Wahyuni (2012) asserts that when collecting data, a multiple case study design should be used. The rationale is that descriptive modes and suggestions efficiently observe research subjects.

In this study, a random selection of 1000 accounting academicians from US colleges and universities and accounting practitioners from private and public business entities will be drawn. The objective of this study is to examine whether the redesign of the accounting curriculum would enhance the success rates of CPA candidates and prepare recent accounting graduates to meet the changing dynamics of employment in the accounting profession. For this reason, the study will focus on the redesign and overhaul of accounting courses, such as information technology, international accounting, forensic and fraud examination, accounting ethics, and oral and written communications.

A postal questionnaire containing demographic data, institutional or company data, educational data, age, marital status, sex, years of teaching, years in professional accounting practice, and attainment of professional certifications will be asked. Research questionnaires on whether the disparity between the CPA examination content and the accounting curriculum has negatively impacted the success rates of passing the CPA examination. In addition, the research questionnaires will investigate when accounting programs adequately prepare accounting graduates to meet the challenges demands of the workplace.


Owens, J. (183). Business ethics in the college classroom. *Journal of Business Education*


