Exploratory Multiple-Case Study of Illinois External Auditors' Perceptions of Fraud Education in Undergraduate Accounting Programs

Dissertation Manuscript

Submitted to Northcentral University

Graduate Faculty of the School of Business and Technology Management
in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF BUSINESS ADMINISTRATION

ADVANCED ACCOUNTING

by

GEORGE APPIAH-SOKYE

Prescott Valley, Arizona
September 2016

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Approval Page

Exploratory Multiple-Case Study of Illinois External Auditors' Perceptions of Fraud Education in Undergraduate Accounting Programs

By

George Appiah-Sokye

Approved by:

Sharon Kimmel 10 October 2016

Chair: Sharon Kimmel, PhD Date

Member: Mary Chmielewski, PhD

Member: Robin Throne, PhD

Certified by:

10/16/16

Dean of School: Peter Bemski, PhD Date

Abstract

External auditors do not have the capacity to detect corporate fraud, even though accounting scholars have agreed on the perceived importance of fraud detection. There is a need to integrate fraud detection courses and forensic accounting topics into undergraduate training. This study addressed the problem of external auditors' detection of less than 5% of fraud cases resulting from their lack of fraud detection topics and courses from their undergraduate studies. The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on expected competencies and fraud detection topics and courses from their undergraduate accounting programs and whether this education prepared them to detect corporate fraud. An exploratory, holistic, multiple-case study research methodology was utilized for the study. A purposive snowball criterion sampling was used to recruit 12 participants with bachelor's degree and at least 1 year of experience in the auditing field in Northern Illinois. The list of membership provided by professional accounting bodies was used to recruit the participants. The external auditors' perspectives were captured as data using open-ended questions in a semi-structured face-to-face interview format. A five-phased research analysis was applied for qualitative data analysis with the help of NVivo 11 software to identify themes associated with the research questions. A total of sixteen themes, made of nine major themes and seven minor themes, emerged from the study and formed the basis of the findings. The results of the study indicated that external auditors have not detected corporate fraud in practice. Furthermore, fraud education received in the undergraduate accounting programs was not sufficient for corporate fraud detection.

Competencies for corporate fraud detection in auditing practice were found to be low among external auditors and four strategies were suggested for integrating fraud education into college accounting programs. The outcome of this study supported recommendations for practical accounting application and future research was recommended for replication of study in other geographic locations to compare the perspectives of educators, management, and internal auditors with a focus on other frauds involving credit cards, payroll, fraudulent billing, inventory, and theft or stealing to build on, extend, confirm, or disconfirm them.

Acknowledgements

This dissertation is dedicated to the memory of my mother, Christiana Oppong Kontoh Appiah (1925 to 2016), who did not have formal education yet believed and valued education; and to my father, George Emmanuel Appiah-Sokye (1922 to 1986), who impacted my life through education. I thank God for their lives. First, I would like to express my gratitude to participants in this study for their voluntary participation and their unique perspectives which illuminated insight into the study. Second, I would like to thank all my friends, co-workers, and students (professional, undergraduate, and graduate) in Ghana and United States of America for urging me on. Third, I would like to send a very special thanks to Dr. Sharon Kimmel, my dissertation chair, for her incredible mentorship, patience, rapid return of my submissions, availability and ever faithful support. I could not have completed this journey without the engaging and encouraging interaction with my Committee members: Dr. Robin Throne (MCM) and Dr. Mary Chmielewski (SME). Four, I am appreciative of the mentorship I received from Professor John B.K Aheto, and all my teachers throughout my education. Five, I would like to register my sincerest thanks to my loved ones for their sacrifices, unwavering love, and support during this educational enterprise- to my beloved wife, Mrs. Florence Appiah-Sokye, she has been there when I needed her, throughout the entire dissertation process. I appreciate the sacrifices made by my Children-Edith, Geopat, Orgetience, and Emmanuel, for their love and support which helped me succeed. I would like for them to aspire to achieve this same feat because if I could do it even at an advanced age of 52- It is doable. Last but not the least, I would like to thank God for giving me the grace, strength, and courage to finish this endeavor. To God be the glory!

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Forensic accounting is an emerging field in academic research (Apostolou, Dorminey, Hassel, & Rebele, 2015; Bhasin, 2013; Huber & DiGabriele, 2014; Mangala & Kumari, 2015; Shapiro, 2015; Singer & Wiesner, 2013). Fraud research has contributed in making fraud education a growing academic concern because of their findings and interpretations (Alleyne & Elson, 2013; Nix & Morgan, 2013; Imoniana, Antunes, & Formigoni, 2013; Trompeter, Carpenter, Jones, & Riley, 2014). Forensic accounting needs to be incorporated into the undergraduate accounting programs because it is critical to fraud detection (Bhasin, 2013; Carpenter, Durtschi, & Gaynor, 2011; Colon, Badua, & Torres, 2016; Mangala & Kumari, 2015; Ragland & Ramachandran, 2014; Singer & Wiesner, 2013). There are impediments to accounting education that need to be addressed by the accounting profession including: lack of faculty experience, excessive focus on research, faculty and administration resistance to change, and the lack of co-operation between educators and practitioners (Huber, 2014; Tower-Clark, 2015). Independent auditors require fraud detection knowledge in undergraduate accounting programs (Brody, Melendy, & Perri, 2012; Nix & Morgan, 2013). Timely training of external auditors for their public accounting practice could help companies to recover losses if fraud detection courses and topics are taught in undergraduate accounting programs (Appiah, 2015; Glovino, 2015; Mangala & Kumari, 2015).

Corporate fraud poses significant threat to organizations (Anonymous, September, 2015; Appiah, 2015; Boyle, Boyle, & Mahoney, 2015; Gottschalk, 2016; Laxman, Randles, & Noir, 2014; Sajay, 2015; Verschoor, 2015). Additionally, corporate fraud is a human problem, which encompasses issues of ethical principles, such as integrity,

respect, responsibility, truthfulness, accountability, fairness, transparency, and loyalty (Buys, Visser, & Oberholzer, 2012; Verschoor, 2015). Ethics has been identified as a component of fraud education and has direct association with the level of education (Alabdullah, Alfadhi, Yahya, & Rabi, 2014; Daniels, Ellis, & Gupta, 2013; Hendi, 2013; Koumbiadis & Pandit, 2014; Modarres & Rafiee, 201). There is the need to incorporate ethics into accounting programs by developing integration plans to cover honesty, virtue, investor confidence, citizenship, and credibility of financial reports (Afford & Bebensee, 2010; Austill, 2011; Dellaportas, Kanapathippillai, Khan, & Leung, 2014; Miller & Becker, 2011; Verschoor, 2015). Ethics scholars (Dellaportas & Hassall, 2013; Martinov-Bennie & Mladenovic, 2015) argued that education on doing what is right can provide students with the skills to address, recognize, and resolve ethical issues.

The absence of fraud education from the undergraduate accounting curriculum requires external auditors to improve their fraud detection knowledge and skills (Daniels et al., 2013; Li & Byrnes, 2012; Nix & Morgan, 2013). Even though it is impossible to detect all fraudulent activities, the external auditor who practices professional skeptical behavior can be guided by fraud knowledge (Albrecht, Albrecht, & Albrecht, 2008; Noviyanti & Winata, 2015). Most external auditors do not have the fraud knowledge to detect corporate fraud because there is a shortage of education in the specialized area (Bajarano, 2013; Nix & Morgan, 2013; Ogoun & Obara, 2013). Fraud education can prepare the auditor to detect corporate fraud through ethical improvements in their moral thinking processes (Carpenter, Reimers, & Fretwell, 2011; Dellaportas & Hassall, 2013; French & Coppage, n.d; Sisaye, 2011).

Daniels et al. (2013) challenged business schools to adopt fraud detection courses and forensic accounting topics into their accounting curriculum. Accounting scholars (Andre, Pennington, & Smith, 2014; Carpenter, Durtschi, & Gaynor, 2011; Kassem & Higson, 2012; Meier, Kamath, & He, 2010) have proposed to the audit profession to provide training on how to detect fraud, yet the perspectives of the external auditors have not been considered in the debates. While some researchers have argued for inclusion of fraud judgment, professional skepticism, and laws, other scholars have called for the integration of fraud education modules in various courses to prepare external auditors to detect corporate fraud (Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Kassem & Hogson, 2012; Meier et al., 2010). There are no prior findings known to date on how the lack of fraud education in the undergraduate accounting programs should be addressed (Hendi, 2013; Meier et al., 2010). There is the urgent need to prepare external auditors to detect corporate fraud because of its prevalence on businesses and impact on society (Austill, 2011; Bhasin, 2013; Hsu, Kung, & James, 2013; Kassem & Higgins, 2012; Law, 2012; Morgan & Burnside, 2014; Robbin, 2011; Sengur, 2012). Chapter 1 covers information pertaining to the background of the study, the statement of the problem, the purpose of the study, the nature of the study, the significance of the study, the research questions, the definition of key terms, and a summary.

Background

Accounting education has been scrutinized due to its shortcomings in fraud education and in developing critical thinking and professional skepticism skills to detect corporate fraud (Avellanet, 2010; Beasley, Carcello, Hermanson, & Neal, 2010; Dellaportas & Hassall, 2013; Kassem & Higson, 2012; Plumlee, Rixom, & Rosman,

2015). Corporate stakeholders' expectations have resulted in a shared responsibility among auditors, board, and audit committees to ensure adequate preparation of external auditors for corporate fraud detection (Agarwal & Medury, 2014; Brody et al., 2012; Moffett & Grant, 2011; Gbadago, 2015; Ihendinihu & Robert, 2014; Reidy & Theobald, 2011; Saeidi, 2012; Yallapragada et al., 2012). As a result, undergraduate accounting students are left alone to obtain the requisite competencies and fraud education such as ethics and critical thinking in order to detect corporate fraud after graduation (Alabdullah et al., 2014; Davis, Farrell, & Ogilby, 2013; Gates, Lee, & Sullivan, 2011; Kassem & Higson, 2012; Yallapragada et al., 2012). Prior literature showed that fraud damaged the reputation of the accounting profession because of the low success rate in fraud detection (Asare & Wright, 2012; Association of Certified Fraud Examiners [ACFE], 2012, 2014; Austill, 2011; Bizarro, Boudreaux, & Garcia, 2011; Hsu et al., 2013; Kassem & Higgins, 2012; Kawasaki, 2010; Lenard, Petruska, Alam, & Yu, 2012; Popoola, Ahmad, & Samsudin, 2014).

Corporate fraud is an economic problem and continues to affect corporate stakeholders, such as investors, victims, donors, regulators, and other entities tied to the corporation (Alleyne & Elson, 2013; Avellanet, 2010; Bressler, 2011; Effiok, Ojong, & Usang, 2012; Kawasaki, 2010; Salem, 2012; Yallapragada et al., 2012). According to the ACFE (2010, 2012, 2014), the estimated median loss of corporate fraud is $1million for the period 2010 to 2014 (see also Hunt & Austin, 2014). The annual fraud cost is assessed at 5% of a typical organization's revenue, translating into $2.9 trillion in 2010, $3.5 trillion in 2012, and $3.7 trillion in 2014 based on the gross world product across the globe (ACFE, 2010, 2012, 2014; Dorminey, Fleming, Kranacher, & Riley, 2012).

While the fraud loss is estimated to be 7% of income, translating into $325 billion in the United States of America and $5 billion in Romania in 2010 (Lord, 2010). The United Kingdom has an estimated fraud loss as a proportion of turnover of 0.54 per cent (0.36 per cent is lost to undetected fraud and 0.18 per cent is lost to detected fraud), translating into £52 billion in 2013 for private sector (National Fraud Authority, 2013). Corporate fraud costs more than 556 times ($258 million) employee fraud, which is estimated to cost $464 thousand (Alleyne & Elson, 2013; Bajarano, 2013). Despite the strict legislation backed by the aggressive enforcement regime and stiffer penalties, corporate fraud stands at 80% of fraud losses incurred by companies in the United Kingdom (Lee, Churyk, & Clinton, 2013). Consequently, fraud-based court cases increased by 59% from 22 in 2011 to 35 in 2012, resulting in monetary value increase of 108% from £12 million to £25 million for the same period (Lee et al., 2013; National Fraud Authority, 2013).

Corporate fraud detection should occupy a place in the thinking of accounting scholars (Armitage & Poyzer, 2010; Austill, 2011; Buchholz, 2014; Doinea & Lapadat, 2012; Gyebi & Quain, 2013; Gupta & Gill, 2012; Hsu et al., 2013; Hunt & Austin, 2014; Kreuter, Sawhney, & Sacks, 2013; Moffet & Grant, 2011; Peltier-Rivest & Lanoue, 2012; Sabau, 2012), yet the literature on fraud education does not address the specific training needs of external auditors (Apostolou, Dorminey, Hassell, & Rebele, 2015; Bajarano, 2013; Hendi, 2013; Lawson, Blocher, Brewer, Cokins, Sorensen, & Stout et al., 2014). Furthermore, fraud losses have become severe and frequent because 93% of corporate executives would order an internal investigation into fraudulent cases rather than report to a regulator (Afford & Bebensee, 2010; Lokanan, 2015; National Fraud

Authority, 2013). Fraud education has become an important learning area to the accounting profession because corporate fraud can be detected by external auditors when they are more fully prepared in their undergraduate accounting education with critical skills and competencies to detect fraud (Agarwal & Medury, 2014; Alshboul & Alrabba, 2014; Bolt-Lee, Farber, & Moehrle, 2011; Kassem & Higson, 2012; Li & Byrnes, 2012; Ogoun & Obara, 2013; Plumlee et al., 2015; Rahman & Anwar, 2014; Trompeter, Carpenter, Desai, Jones, & Riley, 2013).

Statement of the Problem

The problem addressed in the study was that external auditors have detected less than 5% of fraud cases (Agarwal & Medury, 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Rahman & Anwar, 2014; Reidy & Theobald, 2011) because they lack fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Meier, Kamath, & He, 2010; Plumlee et al., 2015). Prior researchers claim that moral reasoning of audit professionals is implicit in ethical training (Dellaportas & Hassall, 2013; Hendi, 2013; Soltani, 2014). Researchers have shown that fraud education is missing from undergraduate accounting programs, even though such knowledge is necessary in the conducting of audits (Alleyne & Elson, 2013; Imoniana et al., 2013; Trompeter et al., 2014; Yallapragada et al., 2012). However, fraud education has not been incorporated into undergraduate accounting programs (Daniels et al., 2013; Eyisi & Ezuwore, 2014; Meier et al., 2010; Miller & Becker, 2011; Nix & Morgan, 2013; Sisaye, 2011).

The incorporation of fraud detection courses and topics needed by auditors resulted in the call for accounting practitioners' input into the design of fraud education at

the undergraduate level (Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Meier, et al., 2010). The views of practitioners in the auditing field can improve on the undergraduate accounting programs (Alleyne & Amaria, 2013; Daniels et al., 2013; French & Coppage, n.d; Ramadhan, 2015). The consequences for not undertaking this study was the loss of significant economic benefits to investors for undetected future frauds (Nelson & Below, 2012), and the inability of the accounting profession to address likely deficiencies in undergraduate fraud education (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Imoniana et al., 2013). The results of this research study will likely be used to inform the accounting profession on external auditors' perceptions on fraud education.

Purpose of the Study

The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. The responses from external auditors in the Northern Illinois area were solicited using semi-structured interviews with open-ended questions (see Appendix A). To broaden the base for data collection, three professional accounting bodies were used to recruit the members for the study, including the following: the IAAI with 442 members (IAAI, 2016), Illinois CPA Society with 24,000 members (ICPAS, 2016), and ACFE with 75,000 members (ACFE, 2016). This brought the total sampling frame to 99,442. The target population of external auditors was the 99,442 members of the ACFE, the ICPAS, and the IAAI. The selection of participants from the 3 professional bodies was to ensure a homogenous sample from

varied professional accounting groups to secure external auditors' perspectives. In this study, a purposive sample of 12 external auditors was recruited or until saturation was reached (Yin, 2009, 2011). Saturation occurred at the point of data collection where no new or relevant data provided new insight to the research enterprise (Patton, 2002). The criteria for participation included: (1) external auditors who belonged to the ACFE, the ICPAS, and the IAAI, (2) had a bachelor's degree, and (3) at least 1 year of practical exposure in the auditing field. The holistic multiple cases for the study were experienced external auditors with and without a CPA designation in the Northern part of the state of Illinois. Northern Illinois was chosen for convenience to allow for the availability and flexibility of participants during face-to face interviews, such that deeper knowledge was provided by the focused sample (Yin, 2011). Secondary data sources involved publications and reports from professional associations such as AICPA's Trends and Competencies reports, ACFE's Global fraud reports, and IIA's Global Internal Audit Surveys reports. Evidence from these three sources, which were based on perspectives of accounting practitioners over time, was compared to the findings of the study (Yin, 2011). No nonverbal data such as observation was gathered in the study (Yin, 2011). The data analysis method for this study was Yin's (2011) five-phased approach of data analysis with the help of NVivo 11 data analysis software (QSR International Pty Ltd., 2015). Conclusions from the study will possibly be used to inform accounting practitioners and educators in the reassessment of their training needs regarding fraud detection courses and forensic accounting topics from the undergraduate accounting programs that prepare external auditors to detect corporate fraud.

Research Questions

The research questions for this study have been framed to provide guidance on the issue of fraud education in order to unearth opportunities based on in-depth understanding from the study. The research questions were the overarching questions utilized to guide the study into fraud education, based on the deficit of the external auditors' perspectives on fraud detection topics and courses from their undergraduate accounting curriculum that prepared them to detect corporate fraud. The review of literature provided background for the study problem, purpose, and research questions addressed. The research questions were as follows:

Q1. How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs prepared them to detect corporate fraud?

Q2. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?

Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?

Nature of the Study

The nature of this qualitative research study was an exploratory, holistic, multiple-case study research methodology (Patton, 2002; Yin, 2011). The researcher reviewed quantitative, qualitative, and mixed research methods for this study (Patton, 2002; Yin, 2011). Quantitative methods were not chosen because the intent was not to

investigate the predictive ability of independent variables from their interaction with the dependent variable (Yin, 2009, 2011). This research project was not based on the use of experiments, hypotheses, or systematic statistical measures to establish association between independent and dependent variables (Denzin & Lincoln, 2011; Patton, 2002; Shank, 2006). Furthermore, a mixed methods design was not chosen for this project because the intent for the study design was not to be focused on both qualitative and quantitative research methods (Patton, 2002; Yin, 2011). Additionally, this study did not need both quantitative and qualitative approaches to answer the research questions because no delimitation of measurable units of fraud education was applied to all participants (Patton, 2002; Yin, 2011).

Qualitative methods were the preferred choice because no statistical analyses were used and data collection involved face-to-face interviews with participants (Yin, 2011). A qualitative approach permitted the exploration of the perceptions of multiple research cases of external auditors to be addressed in the study (Yin, 2011). Accordingly, qualitative methods were well placed to serve this study's purpose better than quantitative and mixed methods; as a result, a qualitative approach provided better understanding of the phenomenon (Yin, 2011). A qualitative research approach was used to provide a contribution of insights into fraud education that prepared external auditors in their undergraduate accounting programs. A qualitative research methodology was the most appropriate for the exploration of peoples' experiences, beliefs, perspectives, and attitudes (Yin, 2011, 2014).

The investigator gained understanding of holistic real-life events, such as external auditors' perceptions of fraud education; as a result, the study was undertaken without

any control or manipulation of the natural situation (Yin, 2009, 2011). Additionally, no statistical analysis was used (Patton, 2002). Exploratory approach was utilized to ensure the provision of direction for further research because few research works have been done in this area (Yin, 2011). As a result, this study explored fraud education holistically from the perspectives of participants and not based on sub-units of undergraduate fraud education programs. The "cases" were made up of two groups of experienced external auditors belonging the ACFE, the ICPAS, and the IAAI: 9 with a CPA designation and 3 without CPA certification and allowed for evidence from different cases to be compared and contrasted (Yin, 2014).

Each case provided different perspectives on the received fraud educations in undergraduate accounting programs, the competencies needed to for accounting students to detect fraud, and strategies for implementing fraud detection education in the undergraduate accounting curriculum. Unlike a multiple case study, a single case study is a design for testing theories that were well formulated (Yin, 2014), but that was not the focus of the study. According to Yin (2011), the single and multiple-case study approaches use the same methodological framework, but there are variations within each research design. Consequently, a multiple-case study approach was the preferred choice because themes were extracted from external auditors' evidence for a coherent perspective to be presented (Yin, 2011).

The data collection was conducted through semi-structured interviews that lasted for 40 minutes to 65 minutes for each of 12 participants and the interview responses were captured using electronic, audio-recording, digital equipment that produced a textual transcript for detailed analysis using Yin's (2011) five-phased research analysis.

Yin's (2011) five-phased research analysis involved compiling, dissembling, reassembling, interpreting, and concluding the process of creating a summary of findings generated from the themes (Yin, 2011). The plan of the research project was to triangulate the field data through multiple professional (secondary) sources such as: the AICPA Trends and Competencies reports, ACFE Global fraud reports, and IIA Global Internal Audit Surveys reports in order to validate study findings (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011). No nonverbal data such as observation was gathered in the study (Yin, 2011). The Computer-Assisted Qualitative Data Analysis' NVivo 11 software was used to provide coding and retrieval of textual data, in order for themes to be identified, and visualization of patterns (QSR International, 2015).

Significance of the Study

This qualitative study was in response to scholars' (Alleyne & Amaria, 2013; Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Meier et al., 2010; Ramadhan, 2015) call for the research of external auditors' perspectives regarding fraud education from undergraduate accounting programs that prepared them to detect corporate fraud. The perspectives of the practitioners provided insights into the issue of fraud education to inform accounting educators about the preparation of auditors to detect corporate fraud (Al-Hadrani & Hidayat, 2015; Imoniana et al., 2013; Salem, 2012). The external auditors' perspectives were used to inform accounting educators of the importance and value of providing adequate information to assist in the preparations of accounting students in their auditing practice (Al-Hadrani & Hidayat, 2015; Armitage & Poyzer, 2010).

The findings of this study were also utilized to provide insights to inform the accounting profession regarding their education experience and as a result, accounting practitioners, educators, and accounting firms were the main beneficiaries of this research (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). Making the results of this study available to accounting practitioners was essential so any deficiencies in their fraud education resulting from their undergraduate education can be addressed. As a result, the study possibly indicated practical insights to accounting practitioners on the adequacy of their fraud education in the course of their work. Accounting educators gained insights into fraud education and applied this knowledge to incorporate corporate fraud detection courses and topics into undergraduate accounting studies. Therefore, accounting educators likely benefitted from the results of the study because it possibly provided valuable understanding of the specific fraud detection courses and topics lacking from undergraduate accounting programs (Alabdullah et al., 2014; Daniels et al., 2013). As a result, this study informed accounting educators as to how to prepare external auditors through fraud education in their undergraduate programs to detect corporate fraud after graduation (Alabdullah et al., 2014; Brody et al., 2012; Kassem & Higson, 2012).

Additionally, this research project provided an opportunity to accounting firms to understand more about the fraud detection courses and forensic accounting topics that may be missing from external auditors' undergraduate accounting programs. As a result, corporate management may begin to factor fraud education (fraud detection courses and forensic accounting topics, including ethics) into their orientation and on- the-job training programs. This study's findings will likely add value to accounting practices because it

was the first time external auditors' perspectives regarding the fraud education from undergraduate accounting programs that prepared them to detect fraud has been examined.

Definition of Key Terms

The key terms defined in this section were words or terms used in unique way in this qualitative, exploratory multiple-case study. Defining key terms permitted the elimination of assumptions regarding word usage so as to provide accurate understanding of concepts.

Analytical procedure (AP). AP is a mandatory audit procedure used by auditors at the planning and final review stages of the audit engagements to evaluate risks and apply substantive tests using tools of financial analysis, such as ratios, trend (horizontal analysis), and common size (vertical analysis), in order to test the details of account balances and details of accounts (Plumlee et al., 2015). The efficiency of analytical tools has a significant effect on corporate fraud occurrence in public institutions and as a consequence, experienced auditors have corroborated the position that more APs are required to mitigate corporate fraud (Alshboul & Alrabba, 2014; Plumlee et al., 2015).

Association of Certified Fraud Examiners (**ACFE).** The ACFE has a 41,000 membership globally and is an association dedicated to providing forensic accounting and anti-fraud education and training (Ramadhan, 2015). The ACFE (2002, 2004, 2006, 2008, 2010, 2012, 2014) researches fraud (occupational) across the world and publishes biannually, *The Report to the Nations on Occupational Fraud and Abuse* (see also Hunt & Austin, 2014).

Auditing. Auditing (external) is the process by which evidence is gathered and evaluated about information to establish the level of correspondence between the information and the objective standard used to prepare the information (Hopwood, Leiner, & Young, 2012). Auditing in the United States is affected by the following regulatory and standard setting organizations: Public Company Accounting Oversight Board, Securities and Exchange Commission (SEC), Financial Accounting Standards Board, American Institute of Certified Public Accountants (AICPA), and Institute of Internal Auditing (Ames, 2010; Hopwood et al., 2012; Salem, 2012).

Audit expectations gap. Audit expectations gap is the difference between what users of financial statements such as investors, creditors, and the general public expect the auditor to do and what members of the accounting profession consider to be their responsibilities (Agarwal & Medury, 2014; Smith, 2015; Saeidi, 2012).

Competencies. Competencies refer to special abilities and skills that are regarded as important in the performance of certain tasks, and core competencies are considered the most essential skills required for the task (Bailey, 2010; Lawson et al., 2014). The expected competencies of accounting students include communication, analytical thinking, problem-solving skills (Bailey, 2010), technology (Apostolou, Dorminey, Hassell, & Watson, 2013), quantitative techniques, external reporting, compliance, and ethics (Gates et al., 2013; Lawson et al., 2014).

Corporate (financial statements) fraud. Financial statements fraud revolves around the following: improper recognition of revenue, improper disclosures in the financial statements, and manipulation of expenses, liabilities, reserves, and assets as well as bribery, kickbacks, aiding and abetment of crimes, improper goodwill and investments

accounting, and the misapplication of assets (ACFE, 2012; Avellanet, 2010; Dorminey et al., 2012; Doinea & Lapadat, 2012). Under this scheme, employees tend to misstate or materially omit important information in the financial reports of the organization such that reported assets are artificially inflated, fictitious revenues are recorded, and reported expenses are understated (ACFE, 2016).

External auditor. The external auditor is an independent person who is engaged by the firm to gather evidence by comparing the financial information to an established standard (generally accepted accounting principles) in order to establish the degree of correspondence between the information and the objective standard used to prepare the information (Hopwood et al., 2012). External auditors search for material misstatements to recognize the risk that they may not arrive at a correct conclusion in order to provide reasonable assurance that the financial statements are free of material misstatement (Buckhoff, Haggins, & Sinclair, 2010). The term "independent auditor" and "external auditor" were used interchangeably by the researcher (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Bajarano, 2013: Brody et al., 2012; Gates et al., 2013; Kassem & Higson, 2012; Nix & Morgan, 2013; Sisaye, 2011).

Financial reports. The objective of financial reporting is to ensure decision-useful information is provided about the entity to both potential and current investors, lenders, and creditors (Barth, 2014). Financial reports encompass the following: the statement of position (the balance sheet), the statement of performance (the income statement), the statement of financial adaptability (the statement of cash flows), the statement of equity, notes to the financial statements, management discussions and

analysis, and media reports. The financial information qualities are relevance, reliability, comparability, and consistency (El-Gammal & Showeiry, 2012).

Financial statements. Financial statements encompass statements of financial position, comprehensive income (net income and other comprehensive income), and cash flow (Barth, 2014), and are an integral part of the financial reporting system.

Forensic accounting (investigation). Forensic accounting is a science that applies auditing procedure to accounting facts in order to deal with legal problems (Alabdullah et al., 2014). Forensic accounting is also called fraud audit and is a combination of accounting and forensic science, while accounting processes revolve around summarizing, interpreting, and reporting on sophisticated financial issues with a view to deducing facts for litigation (Alabdullah et al., 2014). Forensic accounting tools assist with the identification and exposure of culprits (Alabdullah et al., 2014).

Fraud detection. Fraud detection is the process of identifying indicators (symptoms) of fraud that indicate the need for further investigation, which means auditors have a vital role in detecting corporate fraud (Hopwood et al., 2012; Hsu et al., 2013). The objectives of fraud detection are to catch the fraud and also prevent it; therefore, the indicators can suggest concerns that might culminate into the discovery of fraud (Hopwood et al., 2012).

Fraud education. Fraud education referred to fraud detection courses and forensic accounting topics needed to prepare auditors to detect fraud (Alabdullah et al., 2014; Daniels et al., 2013; Hendi, 2013; Nix & Morgan, 2013).

Fraud triangle. The fraud triangle is comprised of the following risk variables: incentive, opportunity, and rationalization (Dorminey et al., 2012; Trompeter et al., 2013)

and can provide a basis for appreciating the processes by which corporate fraud is committed (Daniels et al., 2013; Imoniana et al., 2013). The fraud triangle is part of fraud education that is lacking in undergraduate accounting studies (Daniels et al., 2013; Imoniana et al., 2013).

Internal auditor. The internal auditor is an employee and also part of the management information system of the organization, who possesses experience, epistemic motivation, and problem-solving capabilities, and is well-suited to handle systems assurance, evaluation of internal controls, business strategy, audit of management and operations, and internal consultancy (Avellanet, 2010; Carpenter, Reimer, & Fretwell, 2011; Hammersley, 2011; Kearns, Barker, & Danese, 2011; Leung, Coopper, & Perera, 2011; Song, 2011). Internal auditing in the United States is overseen by the Institute of Internal Auditing (Ames, 2010; Hopwood et al., 2012; Salem, 2012).

Professional skepticism. The mental attitude of the auditor to apply skeptical thinking in the conduct of the audit, such that the auditor should neither assume management has discharged its responsibilities creditably or has been dishonest in the discharge of their duties, is known as professional skepticism (Kassem & Higson, 2012; Plumlee et al., 2015).

Regulatory bodies. The accounting regulatory bodies responsible for fraud detection include the SEC, Public Company Accounting Oversight Board, Financial Accounting Standards Board, IAAI, AICPA, ICPAS, IIA, and the ACFE (2014; see also Hopwood et al., 2012; Hunt & Austin, 2014; Moffett & Grant, 2011; Salem, 2012).

Securities and Exchange Commission (SEC). The SEC is a regulatory agency of the government of the United States responsible for enforcement and oversight

functions under the Security and Exchange Act of 1934, the Securities Act of 1933, and other acts, such as the Sarbanes-Oxley Act of 2002. The division of corporate finance monitors the accounting profession and the division of enforcement can order a formal investigation to bring criminal and civil action for violation before a federal district court or an administrative court law judge (Hopwood et al., 2012; Moffett & Grant, 2011).

Summary

Corporate fraud has not been detected by external auditors in the United States of America and the phenomenon continues to occur in organizations in spite of awareness and the introduction of regulations (Avellanet, 2010; Alleyne & Elson, 2013; Kassem & Higson, 2012). The external auditors will likely be well-prepared for corporate fraud detection, when fraud detection courses and forensic accounting topics are included in undergraduate accounting curriculum (Daniels et al., 2013). As a result, the expectation of corporate stakeholders, such as creditors, financial analysts, and investors could possibly be met (Daniels et al., 2013; Imoniana et al., 2013). Consequently, fraud education has been identified by scholars as lacking in the external auditors' corporate fraud detection preparations at the undergraduate level (Bejarano, 2013; Bressler, 2011; Daniels et al., 2013; French & Coppage, n.d; Imoniana et al., 2013; Kassem & Higson, 2012; Plumlee et al., 2015; Soltani, 2014; Trompeter et al., 2014).

The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. The research method and design were a qualitative, exploratory holistic, multiple-case study research methodology (Yin,

2011). This study involved use of semi-structured face-to-face interviews using an open-ended question format with a purposive sample of 12 external auditors in Northern Illinois. There was the urgent need to prepare external auditors to detect corporate fraud (Austill, 2011; Hsu et al., 2013; Kassem & Higgins, 2012; Law, 2012; Robbin, 2011; Sengur, 2012) because external auditors could provide a source of information which may be relevant to prepare accounting students to detect fraud in their future auditing practice (Al-Hadrani & Hidayat, 2015; Armitage & Poyzer, 2010). This study focused on auditors' preparation to detect corporate fraud because the typical audit procedures are performed too late after the damage to the organization has occurred (Lee et al., 2013).

This study was focused on the preparation of external auditors to be possibly trained so as to sufficiently detect corporate fraud through fraud education. Specifically, accounting practitioners, educators, and accounting firms were the main beneficiaries of the outcome of this research (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). Chapter 1 included the foundational information on fraud education used in preparing external auditors from their undergraduate accounting programs to detect corporate fraud. This qualitative study was in response to the call by researchers (Alleyne & Amaria, 2013; Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Meier et al., 2010; Ramadhan, 2015) on exploration of external auditors' perspectives regarding fraud education from undergraduate accounting programs that prepared them to detect corporate fraud. The findings of this research project indicated insight regarding accounting practitioners and educators' deficiencies of fraud detection courses and forensic accounting topics in undergraduate accounting curriculum.

Chapter 2: Literature Review

The literature review was conducted in order to provide background, support, and foundation to the study. The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. Chapter 2 of the dissertation was built on foundational and previous scholarship on fraud education (Alabdullah et al., 2014; Alleyne & Amaria, 2013; Andre et al., 2014; Apostolou et al., 2013; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Gates et al., 2011; Meier et al., 2010). The review of literature was focused on fraud education within undergraduate accounting programs that helped to prepare external auditors to detect corporate. This chapter is a review of relevant literature on the topic area of interest for this doctoral research and organized along the following themes: overview of fraud education, history and development of fraud education, agency and fraud framework, shortcomings regarding fraud training, the expected competencies of accounting students, response to modification of accounting education, ethical component of fraud education, experiential learning model, and fraud detection courses and topics from undergraduate accounting programs.

Documentation

Most of the scholarly and peer-reviewed articles used for the literature review have been published within a period of 5 years from 2016. The scholarly literature was mainly obtained from references of scholarly journal articles and research databases including: Ebrary, ProQuest, EBSCoHost, SAGE, ScienceDirect, Refworks, Annual

Reviews, Gale Academic, OneFile, SpringgerLink, Ulrichsweb, and WileyOnline library. Nine keywords and phrases were used for the literature search and a total of 390,960 scholarly articles were returned from 5 library databases. The library database search results were as follows: ProQuest (43,355), SpringgerLink (163,395), ScienceDirect (85,809), WileyOnline library (93,284), and EBSCOhost (5,117). While ethics education and accounting education modification returned 57% and 26% (overall) scholarly articles respectively; corporate fraud detection and prevention, and fraud triangle and training returned less than 1% (in total) of articles. The following keywords and phrases each returned less than 10% (in aggregate) of scholarly articles: fraud education, accounting students' competencies, fraud detection topics and courses, forensic accounting examination and science, external auditors, and experiential learning model. Out of a total of 390,960 articles returned from the literature search from the 5 library databases, 378 articles were determined to be directly associated with the study.

Overview of Fraud Education

The discussion of the literature on fraud education in this section covered the evolution of forensic accounting and the possible modification of accounting education to possibly integrate fraud detection topics and courses into undergraduate accounting programs. Forensic accounting is closely associated with auditing because it is practically impossible to consider auditing without recourse to investigation, malpractices in accounting, and assessing the position of businesses (Alabdullah et al., 2014; Imoniana et al., 2013). Recent reviews of forensic accounting have indicated that some criminal justice systems have disturbing and previously unrecognized limitations in their ability to credibly engage and regulate forensic science evidence in fraud detection (Benson, 2012;

Gary & Vuilles, 2014). As a result, knowledge about fraud education is essential to appreciating the missing fraud topics and courses from the undergraduate accounting programs (Alabdullah et al., 2014; Apostolou et al., 2013; Botes, Low, & Chapman, 2014; Daniels et al., 2013; Meier et al., 2010). Furthermore, there is a consensus among all accounting educators regarding the perceived importance of forensic accounting (Anonymous, September 2015) and the integration of certain forensic accounting topics in the accounting curriculum, and this could be delivered jointly by educators, specialized bodies, and practitioners (Al-Hadrami & Hidayat, 2015; Huber & DiGabriele, 2014; Ramadhan, 2015).

There is a decrease in the literature on accounting education because Apostolou et al. (2015, 2013) found the mean number of cases and articles to be 128 for 2013-2014 as compared to 132 for the period of 2010-2012, even though there was an increase from 97 for the period of 2006-2009. However, the contribution of the key study of Apostolou et al. was concentrated on accounting education and fell short of discussing the state of fraud education in detail. The undergraduate accounting programs do not make provision for the teaching of forensic accounting, even though forensic accounting started as a vogue relationship to accounting in the 1980s (Cody, 2014; Dada, 2014). Consequently, 68% of scholars have supported the view that forensic accounting should be integrated into the current accounting and auditing courses (Alabdullah et al., 2014; Apostolou et al., 2013; Daniels et al., 2013; Meier et al., 2010). Against this background, Alabdullah et al. (2014) contributed to the existing literature through accounting and methods of controls taught by the universities to detect corruption cases.

The approach for teaching forensic accounting has been limited to the universities, yet forensic accounting, as a branch of accounting, expects accountants to perform their work for the use of the law and courts (Alabdullah et al., 2014; Apostolou et al., 2013; Brody et al., 2012; Hendi, 2013; Huber, 2014a; Meier et al., 2010; Mitric, Stankovic, & Lakicevic, 2012). In the same way, critics have turned their focus on universities to develop accounting students to detect fraud because the teaching of fraud detection topics and courses is of utmost concern to the accounting profession and scholars (Daniels et al., 2013; Hendi, 2013). The knowledge of forensic accounting can assist corporate stakeholder such as investors and creditors to appreciate the difference between fraud audit and independent audit to make investment and financing decisions (Cody, 2014). Requisite knowledge to perform an independent audit and engage in fraud investigation calls for essential education in fraud and forensic accounting (Alabdullah et al., 2014; Daniels et al, 2013; Huber, 2014b).

The literature on fraud education provides alternative ways of instruction in auditing such as the use of workbooks, movie, seminar, video, webinars, and out of classroom experience (Apostolou et al., 2013; Meier et al., 2010; Nix & Morgan, 2013; Lofland & McNeal, 2014; Seda & Kramer, 2009). Similarly, alternative ways of teaching auditing include in-class instructions, online-self-studies, and SEC filings (Apostolou et al., 2013; Meier et al., 2010; Nix & Morgan, 2013; Lofland & McNeal, 2014; Seda & Kramer, 2009). Accounting programs can be reformed to develop graduates with broader skills sets, preparation, and attributes such as: trustworthiness, dependability, punctuality, cleanliness, oral communication skills, and dependability (Ahadiat & Martin, 2015). The corporate stakeholders can influence organizational

decision makers to pursue actions based on their perceived sentiments (Yusof & Lai, 2014). As a result, the lack of fraud education from undergraduate accounting curriculum should be discussed because a review of accounting education literature for 2013-2014 by Apostolou, Dorminey, Hassell, and Rebele (2015), identified only one article on auditing instruction and no specific publication on forensic accounting (p.107).

According to studies conducted in the United States of America and Indonesia, three important components (method, mentality, and experience) are required to create a forensic accountant (Hendi, 2013; Mitric et al., 2013). According to prior research findings on experience (Alabdullah et al., 2014; Hendi, 2013; Mitric et al., 2013), financial accountants (auditors) can be prepared in a four-year college, but the training of forensic accountants takes the experience of a lifetime using continuous education because forensic accounting is problem-based. First, method is the required skill set for performing duties, such as fraud detection, fraud investigation, and principles of evidence. Second, mentality is comprised of the idea of right or wrong and ability to withstand pressure, and finally, experience is the responsiveness to current issues and problems (Hendi, 2013; Mitric et al., 2013).

Such specialized components in forensic accounting vary from traditional accounting (auditing). The traditional auditor's mentality is based on compliance with generally-accepted accounting principles and auditing standards, whereas the forensic accountant's mentality is based on the development of a strong evidence for the court of law (Hendi, 2013). The external auditor's methodology involves the evaluation of audit evidence against a pre-established standards or criteria in order to give an opinion based on the degree of correspondence. However, forensic accountants do not adhere to such

rules or standards but rather apply different rules for audit engagements (Alabdullah et al., 2014; Hendi, 2013). There is the urgent need for audit education to minimize the perception gap between users of financial statements and the accounting profession regarding the usefulness and scope of an audit function (Ihendinihu & Robert, 2014). According to Finch, Hamilton, Baldwin, and Zehner (2013), 40% of employers have argued that a significant gap exists between skills of graduates and entry-level skill requirement, as a result, the universities can design accounting programs to develop the key skills desired by employers. The five dimensions of audit adaptation competency revolve around: audit education change, audit flexibility perception, audit learning continuity, audit dynamic improvement, and audit environment understanding (Chanaklang, Ussahawanitchakit, & Boonlua, 2015; Ihendinihu & Robert, 2014; Nagy, 2014; Phosrichan & Ussahawanitchakit, 2013; Wiroterat, Ussahawanitchakit, & Muenthisong, 2014). The universities should develop students to acquire competencies at the undergraduate level because employers place higher importance on soft skills instead of academic reputation (Finch, Hamilton, Balswin, & Zehner, 2013; Jackson, 2014; Tran, 2015). Consequently, academic institutions should cooperate with professional bodies to develop forensic accounting courses and topics as scientific competencies to intellectually and practically prepare accountants to deal with corporate scandals, blamed on audit failures such as Arthur Anderson's case in Enron (Matarneh, Moneim, & Al-Nimey, 2015; Shinde, William, Sallehu, & Merkle, 2015). Table 1 compares the required skills of a traditional accountant (auditor) to the forensic accountant.

Table 1

Required Skills for Forensic Accountant versus Traditional Accountant

Traditional Accounting/Auditing Skills	Forensic Accounting Skills
Accounting information system	Arbitration/judicial disputes
Audit evidence/reporting	Corporate control systems
Communication	Critical thinking
Critical/strategic thinking	Due diligence
Ethics	Ethics
External reporting analysis	Evidence collection/evaluation
Focus on market/client/customer	Expert reporting
Fraud prevention/deterrence	Financial expertise
Honesty	Fraud detection/investigation
Internal controls	Fraud perpetrators/motivation
Leadership	Internal controls/risk procedures
Planning/reporting	Investigation of fraud/conceptual issue
Professional skepticism	Legal elements/fraud detection
Quantitative techniques	Problem solving/investigations
Regulatory/standards compliance	Report writing
Risk assessment	Responsiveness to issues
Risk management	Testing/interviewing witnesses
Teamwork	Transaction processing/controls
Technology adeptness	Withstanding pressure

Table1 shows the skill sets prior researchers have suggested for the preparation of both forensic and traditional accountants (Adelean, 2015; Afford & Bebensee, 2010;

Alabdullah et al., 2014; Apostolou et al., 2013; Apostolou et al., 2015; Austill, 2011; Beasley et al., 2010; Buys et al., 2012; Coetzee et al., 2014; Dellaportas et al., 2014; Hendi, 2013; Imoniana et al., 2013; Kassem & Higson, 2012; Kranacher et al., 2008; Lawson et al., 2014; Lofland & McNeal, 2014; Miller & Becker, 2011; Mitric et al., 2013; Noviyanti &Winata, 2015; Plumlee et al., 2015; Verschoor, 2015; Popoola, Che-Ahmad, & Samsudin, 2013; Popoola, Che-Ahmad, & Shamsudin, 2014; Popoola, Che-Ahmad, & Samsudin, 2016). Mitric et al. (2013) asserted that forensic accountants need to be instructed in business law, psychology, criminology, taxation, and financial accounting. The essential skills for both traditional and forensic accountants, include the following: critical thinking, ethics, financial expertise, internal controls, and reporting and analysis. Popoola, Che-Ahmad, and Samsudin (2016) observed that forensic accountants demonstrate a higher level of skill and knowledge than traditional auditor on issues of fraud detection, prevention, and response. The skills needed to prepare traditional accountants (auditors) include the following: accounting information systems, audit evidence reporting, communication, leadership, professional skepticism, technology, and regulatory compliance. Contrarily, as shown in Table 1, the skills required to train forensic accountants, cover the following: arbitration, due diligence, investigation, expert reporting, problem-solving, corporate transaction and control systems, and responsiveness to pressure and issues. Additionally, while fraud prevention and deterrence were the essential skills for a traditional accountant, fraud detection and investigation were found to be critical in the preparation of a forensic accountant.

Accounting scholars have asserted that the incorporation of fraud education in undergraduate studies could be a way by which the accounting profession can influence

the career choice of students into accounting (Daniels et al., 2013; French & Coppage, n.d). Currently, the universities can address the method and mentality aspects of developing accounting students in fraud education (Hendi, 2013; Mitric et al., 2013), but it is not clear how the undergraduate accounting curriculum should address the need for experience in creating a forensic accountant. Furthermore, forensic accounting revolves around the following areas: investigation on conceptual issues, investigation of fraud, mitigation of internal controls risk procedures, arbitration and judicial disputes, expert reporting, and due diligence (Alabdullah et al., 2014; Imoniana et al., 2013 Shapiro, 2015). Before the lacking fraud education from the undergraduate accounting curriculum of external auditors is discussed, similar to the research studies mentioned above, exactly what are the specific courses on fraud education that cannot be found from the undergraduate accounting programs have not been agreed upon by scholars (Brody et al., 2012; Hanson & Peterson, 2010; Hussain, Kennedy, & Kierstead, 2010; Lawson et al., 2014). Similarly, Boritz, Kochetoval, Kozloski, and Robinson (2015) asserted that in audit engagements in which fraud specialists are involved in audit planning lead to higher costs and more audit efforts without corresponding benefits.

As a result, by the inclusion of this literature (Hendi, 2013; Mitric et al., 2012), this research will be an exploration of the perspectives of external auditors to illustrate the absence of fraud education from the undergraduate accounting programs to detect fraud. There are no better methods for incorporating fraud education into a particular curriculum, such as accounting, or throughout the entire business program (Andre et al., 2014; Gates et al., 2011). As a consequence, there is no supporting evidence to indicate that giving instruction in fraud education in undergraduate accounting curriculum is the

best approach to develop students in forensic education. Scholars, such as Daniels et al. (2013) and Nix and Morgan (2013), have argued for the incorporation of fraud education into the undergraduate accounting programs. In a groundbreaking study, Meier et al. (2010) found less than 3% of the Association to Advance Collegiate Schools of Business Accounting Accredited Schools to have separate programs in fraud examinations.

To date, researchers have not established the percentage of universities and accounting programs that do not have fraud education. However, Gates et al. (2011) has advocated for the incorporation of fraud information (education) into the entire business program. The recommendation by Gates et al. needs further scrutiny because shareholder and lenders do expect external auditors to detect corporate fraud, not all business graduates (Agarwal & Medury, 2014). The stakeholders in the financial reporting process should minimize the unreasonable perception gap resulting from misconception, misunderstanding, and ignorance of the duties of an auditor (Ihendinihu & Robert, 2014) because there are broad mismatches between skills required by employers (soft skills) and skills acquired at the university (Ihendinihu & Robert, 2014; Osmani, Weerakkody, Hindi, Al-Elsmail, Kapoor, & Irani, 2015). The following attributes should be included in the preparation of the accounting students: communication, teamwork, creativity, problem-solving, technology skills, creativity, interpersonal skills, and leadership skills (Osmani et al., 2015). As a result, universities offering accounting discipline should work with professional bodies to provide standards and guidelines on education of graduates (Osmani et al., 2015). Therefore, this study can possibly provide the accounting profession with foundational literature to expand the theoretical basis of what is known on forensic education in order to have a deeper meaning of the phenomenon.

History and Development of Fraud Education

Corporate fraud has become a newly developing research area due to its devastating effects on the credibility and reputation of companies resulting in substantial losses to corporate stakeholders such as investors and creditors (Akkeren & Buckby, 2015; Galletta, 2015; Mangala & Kamari, 2015). According to the FBI's National Incident-Based Reporting System, fraud offenses have increased from 3% in 2011-2012 to 6% in 2012 to 2013, providing business need for CPAs to enhance their knowledge by examining different contexts within which fraud occurred (Galletta, 2015). Fraud education has become a comprehensive field that has created the opportunity for universities to add, assess, and harness skills through university programs using accounting skill sets to breakdown traditional silos in order to study fraud (Daniels et al., 2013; Gates et al., 2011; Nix & Morgan, 2013; West Virginia University [WVU], 2007). Fraud education is part of accounting education and as a result, the analysis of the history and development of fraud education is based on previous accounting research findings (Fleming, Pearson, & Riley, 2008; Seda & Kramer, 2009; WVU, 2007).

The history of accounting dates back to 3000 BC when the ancient Sumerians developed the overall written language and the accounting profession in the United States has existed for over 100 years (Enofe, 2010; Enofe, Amaria, & Anekwu, 2012; Jelinek, 2015). According to Ball (2009) and Jelinek (2015), the development of the accounting profession resides in its history such as in 1895, Deloitte and Touche (formerly Haskins and Sells) was established in response to the needs of the joint stock companies, which existed towards the end of the 19th century. By 1916, the first professional accounting body had been reorganized into the American Institute of Accountants (pre-cursor to the

AICPA), which approved a uniform set of acceptable principles and procedures of auditing with the Federal Trade Commission in 1917 (Ball, 2009). The accounting profession had acted alone as the most authoritative body for the establishment of standards without external regulation until the SEC was founded in 1934 by the Securities Exchange Act of 1934 (Ball, 2009). The 1917 documents on accepted accounting practices were revised in 1929, making the Sarbanes Oxley Act of 2002 the most influential external regulation on the accounting profession in 75 years (Ball. 2009).

While some scholars have argued that forensic accounting dates back to ancient Egypt when the scribes kept inventories of gold, grains, and other valuables of the pharaohs (Enofe, 2010; Enofe, Amaria, & Anekwu, 2012; Hendi, 2013). Other researchers suggested that forensic accounting dates back to the 1980s in western countries as part of the growth of the market economy to provide support for the judicial system (Alabdullah et al., 2014; Gordon, 2015). The issue of forensic accounting has gained popularity among researchers in most countries of the world because in recent times the audit profession has been eager to publicly acknowledge its limitations with respect to responsibilities over fraud (Alabdullah et al., 2014; Free & Murthy, 2015; Gordon, 2015; Hendi, 2013). The literature on forensic accounting does not cover the period from its origin in ancient Egypt to its emergence in the western countries in the 1980s (Alabdullah et al., 2014; Hendi, 2013). Nevertheless, there has been the urgent need for entry-level audit practitioners to demonstrate considerable knowledge, skills, and awareness in relation to fraud and forensic accounting (Enofe, Okpako, & Atube, 2013; Jackson, 2014; Okoye & Gbegi, 2013; Smith, 2015; WVU, 2007). Consequently, the need to train forensic accountants has been on the ascendency, thereby unearthing

opportunity for universities because there is an association between auditing, fraud, and fraud accounting (Alabdullah et al., 2014; WVU, 2007).

The self-regulation of the accounting profession began in 1904 when the first professional accounting organization was established (Ball, 2009). The English and Scottish chartered accountants led the accounting and auditing profession between 1870 and 1900 (Jelinek, 2015). According to Jelinek (2015), the origin of independent auditing is rooted in the agency theory, because of the following: first, auditing supports the effectiveness and efficiency of the capital markets by providing the required financial information disclosures for decision-making. Second, investors assess the performance of corporate management through auditing, leading to the vital role played by the external auditor to society (Jelinek, 2015). Finally, the unique functions of the independent auditor demands ultimate allegience to corporate stakeholders such as stockholders, creditors, and the public (Jelinek, 2015).

By the 1930s, independent auditors had abandoned their earlier focus on fraud detection and started putting limitations on audits (Kassem & Higson, 2012; Smith, 2015). Prior researchers (Gbadago, 2015; Ihendinihu & Robert, 2014; Saeidi, 2012), have asserted that the cause of audit expectations gap is attributed to either (a) lack of appreciation of the nature and limitations of an audit by the public, or (b) the shortage of education on the responsibilities of auditors. According to Saeidi (2012), external auditors have argued against claims by corporate stakeholders by shifting fraud prevention and detection responsibilities to management. Corporate stakeholders, such as investors and creditors, have a big issue with fraud detection because there is divergence between what the public and users of financial reports perceived the responsibilities of

the auditor to be and what the audit profession viewed as its role during the conducting of an audit (Agarwal & Medury, 2014; Free & Murthy, 2015; Smith, 2015). This attitude created an expectations gap between the auditor and the public on what constituted auditors' responsibilities (Agarwal & Medury, 2014; Smith, 2015).

Table 2

The Audit Expectations Gap in Relation to Corporate Fraud Detection

Continent	Number of Countries	Names of Countries	Research Studies
Africa	2	Egypt South Africa	Dixon et al. (2006); Gloeck & deJager (1994)
Asia	5	China Singapore Malaysia Saudi Arabia Lebanon	Best et al. (2001); Fadzly & Almed (2004) Haniffa & Hudaib (2007); Lin & Chen (2004); and Sidani (2007)
Europe	4	Denmark Ireland The Netherlands United Kingdom	Hassinik et al. (2009); Hϕjskov (1998); Humphrey et al. (1993); Porter & Gowthrope (2001); Robinson & Lyttle (1991)
North America	2	Barbados United States of America	AICPA (1978); Alleyne & Howard (2005); Epstein & Geiger (1994); McEnroe & Martens (2001); Schelluch (1996)
South America	0	Not applicable	Not applicable
Oceania	2	Australia New Zealand	Gay et al. (1997); Monroe & Woodliff (1993); Porter (1993)

Source: *Saeidi, F. (2012). Audit expectations gap and corporate fraud: Empirical evidence from Iran. African Journal of Business Management, 6(23), 7031-7041. doi:10.5897/AJBM12.382*

As indicated in Table 2, a summary of the landmark study conducted by Saeidi (2012) on the audit expectations gap regarding auditors' role in fraud detection has been provided. The responsibility of the independent auditors relating to the firm's financial statements is to provide attestation functions to the financial reporting process by ensuring that financial statements are presented without material falsification

(Bazrafshan, 2016). By way of illustration, only 25% of graduate final year students in Ghana knew an auditor's responsibilities even though fraud constitute a substantial threat to organizations (Gbadago, 2015; Laxman, Randles, & Nair, 2014). For that reason, Jelinek (2015) asserted that auditing should be based on strong values and moral character, which is essential corporate governance mechanism for protecting corporate stakeholders. The prior historical literature supported the existence of the problem of audit expectations gap in association with corporate fraud detection in 15 other countries across 5 continents, but no study was cited in South America as of 2012 (Saeidi, 2012).

External auditors are required to possess adequate knowledge and skills to detect material fraud in the financial statement because they are expected to operate in an environment impacted by regulations (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003). Auditors should be trained in behavioral finance, criminal profiling, and the latest software needed to combat fraud (Simha & Satyanarayan, 2016). The accounting regulation, such as the Statement of Auditing Standard Number 99 and the Sarbanes Oxley Act of 2002 was due to the negative publicity on corporate scandals in the early 2000s that caused the leadership of the accounting profession to call for more fraud education in the country's universities (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003). Prior to this, the responsibility for the detection of fraud by auditors had been considered as necessary by the accounting profession in the 1950s (Rufus & Haln, 2011; Smith, 2015). Independent accountants were viewed to be fraud detectives from the turn of the century, but this responsibility soon disappeared due to the complexity of corporations (Smith, 2015). According to Shinde, William, Sallehu, and Merkle (2015),

the McKesson and Robbins fraud occurred as far back as 1924 to 1937, which preceded the inception of the fraud triangle in the 1950s and SAS Number 99 in 2002.

For a period of over 40 years, auditors only formulated plans to detect fraud because the SAS Number 16 of 1976 only required auditors to search for items that might affect the financial statements (Saeidi, 2012; Shinde, William, Sallehu, & Merkle, 2015). Consequently, lapses in auditing standards and procedures permitted major corporations to commit fraud (Shinde et al., 2015, p.40), but corporate fraud mitigating strategies will involve addressing the flaws in internal controls including weaknesses in the monitoring regime, implementing organizational accounting information system, policies, and management, and the streamlining of oversight functions to reduce corporate fraud (Appiah-2015; Imoniana & Murcia, 2016). Additionally, external auditors lacked due diligence and as a result, failed to uncover the Olympus Imaging fraud case for a period of 20 years. As a result, the AICPA in 2002, issued an exhibit to SAS Number 99 in consultation with the following professional bodies: ACFE, IIA, Financial Executives International, Information System Audit and Control Association, Institute of Management Accountants, and Society for Human Resource Management in order to save cost and reduce future frauds so as to have positive impact on the economy (Elam, Madrigal, & Jackson, 2014; Sengur, 2012; Singh, Best, & Mula, n.d; Totty, 2014).

This neglect of the auditors' role in fraud detection partly culminated into the following accounting scandals in United States of America: Enron, WorldCom, Fannie Mae, Freddie Mac, Qwest Communications, Parmalat, Adelphia, U.S. Savings and Loans, Equity Funding, Global Crossing, ImClone, and McKesson-Robbins (Gordon, 2015; Hopwood et al., 2012; Lokanan, 2015). Similarly, accounting scandals in Canada

include the following: Atlantic Acceptance, Livent, Lucent Technologies, Loewen Group, Philips Services Corp., Canadian Commercial Bank, and Northlands Bank (Gordon, 2015; Hopwood et al., 2012). Recent corporate scandals have led to the demise of companies, resulting in disastrous consequences for its stakeholders because successful fraud detection depends on the investigator's ability to detect patterns in data that are indicative of fraudulent transactions (Dilla & Raschke, 2015; Mitrendu, 2015). Saeidi (2012) observed that there was a significant variation between auditors and investors on the definition of fraud, but financial managers and investors converged on higher expectations of the auditor regarding fraud detection and prevention. Bazrafshan (2016) asserted that auditors' point of view showed considerable variations regarding how fraud risk components compared with the views expressed by university students. For that reason, there was considerable disagreement among investors and auditors on auditors' reponsibility for fraud reporting, yet financial managers showed opinion closer to that of auditors (Saeidi, 2012).

The suggestion that fraud education will benefit not only students and employers (Peterson, 2003), but also other stakeholders such as educators, universities, practitioners, accounting firms, regulatory bodies, economy, and the general public needs further scrutiny (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). While the agency's management is responsible for preventing fraud, professional accountants are the ones who suffer most when fraud is discovered (Miller, Proctor, & Fulton, 2013; Morgan & Burnside, 2014; Strudgen, 2015; Tsegba & Upaa, 2015; Tsegba, Upaa, & Tyoakosu, 2015). Accounting educators should provide accounting students with fraud education because there are associations among auditing,

fraud examination, and forensic accounting, even though the relationship appears to be dynamic and changing over time due to factors, such as political, social, legal, and cultural events (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003). The impact of fraud has been alarming on facilities, public service, and infrastructure (Popoola et al., 2014), but accounting practitioners and researchers have concentrated on triggers (i.e., red flags) for fraud with respect to individual morality and solo offending (Dorminey et al., 2012; Free & Murphy, 2015; Trompeter et al., 2013).

According to Lokanan (2015), the ACFE's promotion of the fraud triangle as a framework for practitioners can be restrictive because fraud cannot be confined to a particular framework due to its multifaceted nature. Forensic accountants can apply the fraud triangle, the crime triangle environment in criminology theory, and the fraud scale elements to obtain comprehensive perspectives of a fraud event (Mui & Mailley, 2015; Othman, Aris, Mardziyah, Zaiman, & Amin, 2015) to conduct surprise and external audits using data mining tools to effectively detect fraud (Mouton, 2013). Fraud scale elements include: motives, conditions, capabilities, and fulfillment (Mackevicius & Giriunas, 2013), and that of fraud triangle consists of opportunity, rationalization, and pressure or incentives (Shinde, William, Sallehu, & Merkle, 2015). Consequently, the social dimension of fraud is not just a crime incidental feature, but rather a potential way of understanding the etiology of its distinctive features (Free & Murphy, 2015).

Lokanan (2015) examined the fraud triangle (i.e., framework) as an important assertion for accounting practitioners to detect fraud and concluded that the framework should be viewed as a necessary, but not sufficient model for combating fraud. As a result, Laxman, Randles, and Nair (2014) asserted that accounting practitioners should

employ, the following as a reliable fraud mitigation program to detect and prevent fraud: creating a control environment, monitoring activities, performing risk assessment, developing information and communication, and implementing anti-fraud activities. Therefore, a deeper appreciation of the dichotomy between co-offending and solo offending would engender academic research in accounting and auditing curriculum and practice (Alleyne & Elson, 2013; Free & Murphy, 2015). As a result, most fraud professionals need to have familiarity with fraudulent acts exposure at the entry-level to appreciate all the complexities and nuances of each type of fraud (Alsboul & Alrabba, 2014; WVU, 2007). Bazrafshan (2016) called for future studies to explore the application of advanced models to fraud components to identify and uncover corporate fraud through the use checklists design such as: regression analysis or methods, nervous network, and phase logic. As a result, the critics of accounting education have put pressure on university administrators to consider incorporating a forensic accounting track into their programs in order to develop ideal holistic future accountants to respond to the needs of corporations using ethics, critical thinking, and communication skills (Dellaportas & Hansall, 2013; Seda & Kramer, 2009).

Seda and Kramer (2009) forwarded the following recommendation for accounting education: first, the need to depart from the use of lecture-based education and gravitate towards teaching approaches, such as case studies, ethical reasoning, and uncertainty analysis (see also Brailey, 2010). As a result, the mechanism of learning should cover textbooks, case studies, seminars, videos, workbooks, research projects, and guest speakers (Apostolou et al., 2013; Dellaportas & Hassall, 2013; Gates & Sullivan, 2011; Lofland & McNeal, 2014; Seda & Kramer, 2009). Second, faculty should consider a

residency, internship, and consulting, or other real world experience that would permit students to transfer their understanding to the changes that are taking place in the market (Gates et al., 2011; Seda & Kramer, 2009). Additionally, accounting educators should apply creative ways to include business professionals in the education process (Gates et al., 2011; Seda & Kramer, 2009). Third, the need is to revamp undergraduate accounting programs to cover analysis of accounting information in making decisions (Alabdullah et al., 2014). Lastly, accounting educators should develop a multidisciplinary degree through reduction in time and devoting the depth to traditional accounting and the role of the accountant as a holistic business advisor (Imoniana et al., 2013; Seda & Kramer, 2009).

A well-designed fraud course should be provided to accounting students to give them the opportunity to develop skills and knowledge in financial expertise, legal elements of fraud, ethics, evidence collection and evaluation, fraud perpetrators and their motivations, report writing, testifying, interviewing a witness, and critical thinking using resources, such as textbooks, instructional materials, academic journals devoted to fraud and forensic accounting, sources for case study materials, webinars, and relevant professional organization (Kranacher, Morris, Pearson, & Riley, 2008; Lofland & McNeal, 2014; Peterson, 2003). By way of comparison, while a typical undergraduate auditing class is focused on the identification of errors and omissions that might potentially affect the financial statements because accounting education has been rooted in its past, educators, while drawing on traditional programs, should apply intellectual and practical knowledge to enrich all the courses that can provide useful knowledge for practice (Jindrichovska & Kubickova, 2015; Noddings, 2015). For example, WVU

responded by incorporating another course in financial statements fraud (corporate fraud) into its accounting programs to make professional skepticism the overriding goal (see Fleming et al., 2008). Accordingly, WVU asserted that the sustainability of fraud education over time will be based on the ability to test specific tools on scientific methodologies and techniques used in the field and also the justification to explore new ways of handling fraud issues (see Fleming et al., 2008). Therefore, universities have to develop accounting students with knowledge and skills in fraud accounting to prepare them to enter the auditing field (Mitric et al., 2012; WVU, 2007).

Accounting professionals should be diligent in their evaluation of fraud risk by searching for symptoms (i.e., red flags) and examining anomalous cases to sustain an appreciable level of professional skepticism (Kassem & Higson, 2012; Plumlee et al., 2015; WVU, 2007). By way of illustration, PricewaterhouseCoopers (PwC) has developed and retained talented staff for audit quality using *real-time* feedback and a career framework on progression (O'Donnell, 2016). Consequently, graduated students from the universities are employed in auditing institutions (CPA firms), but the probability of aligning the point of view between inexperienced auditors (accounting students) and independent auditors could be achieved through trainings of inexperienced auditors by independent auditors (O'Donnell, 2016). This approach will decrease the possibility of denying inexperienced auditors access to audit objectives in auditing profession (Bazrafshan, 2016).

Seda and Kramer (2009) stressed the need for further research to address the gap between forensic accounting practice and education because forensic accounting has become a "hot" career track. Michaelson (2015) argued that the inability to look for a

meaningful work constitutes a tragic moral failure. However, there are few accounting programs offering fraud education in accounting programs because as of 2009 only 26% of undergraduate programs had forensic accounting programs, hence the incorporation of fraud education in undergraduate accounting programs would be a benefit to accounting programs, universities, the economy, academicians, practitioners, and society (Meier et al., 2010; Seda & Kramer, 2009). The AICPA has responded to the corporate scandals by working towards incorporating fraud prevention materials into the university textbooks and accounting curriculum (Peterson, 2003) by working with academic institutions to develop materials appropriate for inclusion into university accounting programs (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003).

The analysis of previous findings demands that accounting scholars scrutinize the following issues. First, there is the need to research further into the development of fraud education between the Egyptian pharaoh's era and the 1980s (Alabdullah et al., 2014; Hendi, 2013); this will complement the scholarly works of Smith (2015). Second, additional research efforts will be needed to evaluate the effectiveness of the fraud accounting course introduced by WVU in response to corporate scandals (Fleming et al., 2008; Seda & Kramer, 2009; WVU, 2007). Third, accounting researchers should address the issue of whether accounting, auditing, and forensic accounting mean the same in the profession (WVU, 2007) because of the expectation gap between auditors and corporate stakeholders (Free & Murthy, 2015; Jelinek, 2015; Smith, 2015). Finally, accounting researchers should examine the correlation between auditors' responsibilities and fraud detection because the complexity of corporations causes auditors to relegate their responsibility of fraud detection to the background (Agarwal & Medury, 2014;

Aghghaleh, Iskandar, & Mohamed, 2014; Kandemir, 2013; Smith, 2015; Van Akkeren et al, 2013). The AICPA's response to the corporate scandals was for the incorporation of fraud prevention material inclusion in textbooks and university programs (Peterson, 2003) at the expense of fraud detection focus, but this incorrect attempt by the accounting profession has contributed to the low corporate fraud detection rate by external auditors. As a result, more scholarly works will not only benefit practicing auditors, but the findings could also be added to the classroom settings to prepare accounting students to contribute to their employers upon completion of their programs (Fleming et al.,2008; Kassem & Higson, 2012).

Fraud Framework

Agency theory indicates that due to the separation of ownership from control, corporate shareholders are unable to engage in management and therefore, it is the responsibility of the board to represent the shareholder's interest (Durus & Mohamad, 2011; Jelinek, 2015; Miller, 2011). Berle and Means (1932) first introduced the concept of separation of ownership and control, which later was used by Jensen and Meckling (1976) and Muth and Donaldson (1998) to study corporate failure within the context of agency theory (see also Durus & Mohamad, 2011; Jelinek, 2015; Miller, 2011). There are no substantial reasons to believe that corporate directors will always act in the shareholders' best interest (Jelinek, 2015; Upping & Oliver, 2011). Similarly, previous scholars (Aksoy & Kahyaoglu, 2012; Dorminey et al., 2012; Jelinek, 2015; Trompeter et al., 2013) drew upon the long- established streams of agency theory literature to provide the fraud triangle as an applied foundation that addresses fraud risk factors. The identified fraud risk factors include opportunity, incentives, rationalization, evidence, and

motive in order to understand corporate fraud detection (Aksoy & Kahyaoglu, 2012; Dorminey et al., 2012; Trompeter et al., 2013). Additionally, the audit function is considered an important component of the oversight of the agency relationship in order to add credibility to the corporate financial reporting process (Ball, 2009; Jelinek, 2015). ACFE (2014) asserted that in spite of the implementation of external audits in organizations, fraud detection and prevention are ineffective. While fraud detection by accident recorded 7% of fraud, eternal audits detected only 3% of frauds (ACFE, 2014). The fraud framework holds the expectation that explains corporate fraud detection by external auditors because corporate individuals act in their own best self-interest as agents (management) instead of acting in the interest of the principal (shareholder; Aksoy & Kahyaoglu, 2012; Dorminey et al., 2012; Hansen & Peterson, 2010; Jelinek, 2015; Lokanan, 2015; Miller, 2011).

Fraud triangle (pressure or incentives, opportunity, and rationalization), diamond of fraud (fraud triangle plus criminal mind and arrogance), and fraud octagon (diamond of fraud plus law breaking, human greed, and sycophant) have provided the framework for corporate fraud detection (Imoniana & Murcia, 2016). Simha and Satyanarayan (2016) asserted that current methods for fraud detection were inadequate and also susceptible to time lags. Therefore, fraud prevention methods should be utilized effectively in organizations, and the relationship between fraud and technology should be managed to prevent savvy fraudsters from perpetrating fraud, while helping combating and detecting of fraud (Simha & Satyanarayan, 2016). Cressey's (1953) fraud triangle has helped auditors for over 62 years as of 2016 to understand and assess risks to create a plan for corporate fraud detection (Aghghaleh, Iskandar, & Mohamed, 2014; Mohamed

& Jomitin, 2014; Richardson, Taylor, & Wright, 2014; Shinde, William, Sallehu, & Merkle, 2015), however, in recent times the framework has been integrated into SAS Number 99 in 2002. As a result, fraud detection is built on the seminal works of Cressey (1953, 1973) and has been established as the basis for what has become known as the fraud triangle (Avellanet, 2010; Alleyne & Elson, 2013; Reidy & Theobald, 2011; Robbin, 2011).

Prior scholars (Albrecht et al., 2008; Gupta & Gupta, 2015; Laurin, 2013; Oyedokum, 2014; Rahman & Anwar, 2014; Roy, 2015) applied the fraud triangle to explain the reasons why fraud occurs in companies. Similarly, accounting scholars (Daniels et al., 2013; Imoniana et al., 2013; Peshori & Kishore, 2015; Shanikat & Khan, 2013) introduced the fraud triangle as part of fraud education from undergraduate accounting studies that can prepare auditors to detect corporate fraud. According to Albrecht et al. (2008), fraud can occur due to unethical behavior, the unmasking of existing problems due to expanding economies of the 1990s and 2000s, moral degeneration around the globe, and misplaced executive compensation and incentives. The fraud framework has helped to place corporate fraud detection by external auditors into context because the seminal works of Cressey (1953, 1973) involved employment of a social dimension to psychology in order to relate embezzlement to environmental and motivational variables. Other causes of fraud include, the following: target firms' short-term behaviors towards analysts' expectations, a large level of corporate debt, and the nature of the rule-based United States' generally accepted accounting principles, which are not principle-based (Albrecht et al., 2008).

Accordingly, Cressey (1973) posited that people who commit fraud have a problem of sharing their problems with others, so they depend on their own actions to resolve the problem (perceived pressure). The perpetrators are able to rationalize their actions so as to mitigate the feeling of guilt using personal actions to address the perceived opportunity. Third, there is the opportunistic behavior of accounting firms, and greed by investors, corporate executives, investment banks, and commercial banks (Albrecht et al., 2008). Nevertheless, the most significant fraud risks components from the point of view of auditors was associated with misappropriation of assets, whereas students found management characteristics to be the most important fraud risk component above the other three components involving industry conditions, operating and financial stability characteristics, and misappropriation of assets (Bazrafshan, 2016).

The seminal works of Cressey (1953) have helped to develop the following fraud risk factors of the fraud triangle: incentive, opportunity, and rationalization (Dorminey et al., 2012; Trompeter et al., 2013). The fraud triangle provides an appreciation of the processes by which corporate fraud is committed (Abdullatif, 2013; Avellanet, 2010; Dorminey et al., 2012; Mangala & Kumari, 2015). Lokanan (2015) has rejected the view held by the ACFE to the effect that the fraud triangle can provide understanding of the reasons why some corporate executives, such as lawyers, accountants, and information technology personnel, have been linked to fraud, but other decision models, such as economic, social, and political dimensions, are ignored. As a result, understanding fraud education from undergraduate accounting studies by which external auditors were prepared to detect corporate fraud will be enriched (Hsu et al., 2013; Ogoun & Obara, 2013; Salem, 2012). Therefore, the fraud triangle has become one of the elements of the

Statement of Auditing Standards Number 99 after a number of corporate scandals swept across the United States of America (Aksoy & Kahyaoglu, 2012; Buchholz, 2014; Dorminey et al., 2012; Fleak, Harrison, & Turner, 2010). Similarly, the fraud triangle theory is supported by the Statement of Auditing Standards Number 99 (Buchholz, 2014) in that external auditors have a positive role to play in the mitigation of corporate fraud (Carpenter, Durtschi, & Gaynor, 2011; Dorminey & Fleming, 2012).

Chong (2011) argued that the existence of fraud is attributable to considerations, such as rationalization, opportunity, pressure, poor internal controls, greed, excuses of individual perpetrators, and ineffective governance structures in organizations. Contrarily, Avellanet (2010) also forwarded the following fraud factors: circumstantial evidence, opportunity, motive, and causation. Lokanan (2015) made strong contributions to the debate on the fraud triangle. The first contribution was that the elements of fraud (incentive, opportunity, and rationalization) have succeeded in providing accounting practitioners with insights on the conditions under which fraud perpetrators choose to commit the offense (Avellanet, 2010; Dorminey et al., 2012), but other processes and issues that are related to fraud are relegated to the background (Lokanan, 2015). The second contribution was that the ACFE's position on fraud as an individual problem instead of socio-political phenomenon is unacceptable, because individual are motivated to cheat without being caught, there existed concealment opportunities that have enabled organizations to be defrauded, and there is an association between the individualized frailty and personality and fraudulent behavior (Lokanan, 2015). The third contribution was that the branch of accounting knowledge that considered fraud triangle as practitioners' framework for monitoring, evaluation, and normalization of the character

of corporate executive should not have been viewed to neglect the social, economic, and political processes through which individualized executive behaviors are affected (Lokanan, 2015). The final contribution has been an urgent need to utilize the integrated approach to emphasize situational views of the fraud debacle (Lokanan, 2015).

Avellanet's study is supportive of Cieslewicz (2010) identification of variables, such as social norms, perception of opportunity, attitudes, and incentive based on intentions. Li (2010) investigated corporate fraud detection using an empirical framework that modeled the strategic interdependence between fraud and detection to account for the possibility that some fraud remains undetected. The median time span for fraud detection ranges from 24 months for check tempering to 30 months for financial statements fraud (Lord, 2010). Fraud erodes people's savings and assets, besmirches corporate reputation, and prompts increases in government regulations (Alleyne & Elson, 2013; Austill, 2011; National Fraud Authority, 2013; Olagbemi, 2010). Although there has been numerous research, such as that conducted by Ghazali, Rahim, Ali, and Abidin (2014), on accounting fraud, federal regulations, and corporate reputation (Anand, Dacin, & Murthy, 2015; Ference, 2014; Mangala & Kumari, 2015; Zack, 2014), this study's unique purpose is to explore corporate fraud detection from the perspectives of external auditors regarding the fraud education from undergraduate accounting studies that helped to prepare them.

The components of the fraud triangle are first, incentive or pressure in relation to the regular pressure brought upon the management of corporations to meet the expectations of the financial analysts, the pressure to not mismanage corporate earnings, to satisfy the needs of financial reporting to corporate stakeholders, and ensure constant

incentive and compensation structures of the firm (Chong, 2011; Dorminey et al., 2010). Second, opportunity is provided for committing fraud when the following conditions are present: ineffective monitoring of the activities and employees of the company, and the sophisticated structure of the organization has concomitant poor internal controls systems (Avellanet, 2010; Chong, 2011). Lastly, rationalization or attitude is the finding of reasons to justify wrong actions, but this can be reduced when accounting standards are simplified to improve accounting reporting accuracy and transparency (Chong, 2011). Avellanet (2010) introduced circumstantial evidence, motive, and causation as new factors of fraud, thereby abandoning the factors of incentive and rationalization, which are deemed important by Verschoor (2015) in the fraud triangle. Cieslewicz's (2010) prior findings appear to be in agreement with the findings of Avellanet and the fraud triangle. The outcome of the works of Avellanet with Schuchter and Levi (2015) appear to include acceptance of the opportunity factor of the fraud triangle as the only universal pre-existing condition for acts considered as fraud by perpetrators. However, an analysis of the literature (Avellanet, 2010; Chong, 2011; Cieslewicz, 2010) does not indicate confirmation of agreement by scholars on the fraud triangle.

As applied to accounting, there is no consensus on the lack of fraud education from undergraduate accounting studies based on fraud risk factors to detect corporate fraud (Alabdullah et al., 2014; Bressler, 2011; Daniels et al., 2013; Imoniana et al., 2013; Kassem & Higson, 2012; Meier et al., 2010). At the same time, qualitative approaches to the assessment of audit risks has resulted in a higher level of risk in managerial characteristics and attitude to audit (Abdullatif, 2013; Carpenter, Reimers, & Fretwell, 2011). Albrecht et al. (2008) and Glovino (2015) identified types of educator failures to

account for fraud such as insufficient ethical training has not been provided to students and also students have not been taught about fraud because most business students lack appreciation of fraud elements. Similarly, there has been the neglect to explore the association between fraudulent activities and management theories on behavior (Ogoun & Obara, 2013).

Accounting scholars and practitioners should provide insights that will transcend the fraud triangle to improve auditors' professional ability to detect fraud (Bejarano, 2013; Effiok et al., 2012; Buchholz, 2012; Dorminey et al., 2010; Lokanan, 2015). Accounting, auditing, and business professionals have identified the relevance of understanding and considering fraud triangle for detecting fraud (Dilla & Raschke, 2015; Reidy & Theobald, 2011; Robbin, 2011). Boyle, Boyle, and Mahoney (2015) offered the following recommendations because despite the costly and significant regulation such as SOX, PCAOB, SAS 99, fraud has not been abated. The first recommendation was for accounting professionals to develop the ability to identify their own rationalization tendencies and to appreciate that fraud perpetrators are real people (Boyle, Boyle, & Mahoney, 2015). The second suggestion was to understand the need to live within one's means and to recognize that getting away with fraud has a psychological cost (Boyle, Boyle, & Mahoney, 2015). Accounting practitioners need to build a network of trusted people as a way of sharing problems and also stipulate specific values that are essential to the profession (Boyle, Boyle, & Mahoney, 2015). The last recommendation was based on the importance of maintaining one's marketability from the individual values (Boyle, Boyle, & Mahoney, 2015). Consequently, fraud detection can be possible when the three fundamental areas of the fraud triangle are addressed and confronted (Abdullatif, 2013;

Albrecht et al., 2008; Avellanet, 2010; Buchholz, 2012; Dorminey et al., 2010; Ference, 2014; Gupta & Gill, 2012).

Shortcomings Regarding Fraud Training

The issue of corporate fraud has received much attention in the accounting literature by both researchers and practitioners (Avellanet, 2010; Brody et al., 2012; Effiok, Ojong, & Usang, 2012; Ference, 2014; Zack, 2014). Independent audits can give credibility to the process of financial management of companies because auditors, regulators, and companies have tended to place emphasis on the deterrence of fraud due to increased fraud cases in recent times, but the changes have not helped the growth of the accounting profession and its reputation (Enofe & Amaria, 2011; Jelinek, 2015; Liu, Wright, & Wu, 2015). Furthermore, audit teams lack the requisite training to identify fraud risk, which is indicative of the need to train auditors about fraud in the financial statement and also techniques for detecting fraud as required by auditing standards (Dickins & Reisch, 2012; Noviyanti & Winata, 2015). In today's global and competitive environment, the similarity of financial statement fraud cannot be farfetched because information base will assist in guiding compliance and anti-fraud policies, but new models tend to trace their origins from the existing ones (Imoniana & Murcia, 2016).

Fraud could be fought through education and the conduct of regular audits (Albrecht, Holland, Malagueno, 2015; Mouton, 2013; O'Reilly, 2015; Swedberg, 2014) yet there is a lack of knowledge among the financial reporting supply chain such as external auditors, board of directors, management, and audit committees (Chambers, Daly, Fornelli, & Hollein, 2014). Corporate managers are seeking to provide financial reports that are aligned with corporate goals, while at the same time motivated by

personal self-interest falsify accounting figures (numbers), resulting in the management of earnings (Imoniana & Murcia, 2016). Nevertheless, an integrated or holistic approach will be required to provide regular refresher training to address new fraud threats from scandals due to the failure of external auditors in detecting accounting irregularities (Chambers, Daly, Fornelli, & Hollein, 2014; Soltani, 2014; Tiffen, 2015). Imoniana and Murcia (2016) investigated corporate fraud similarity and found similarities in assets misappropriation, corruption, and monetary theft, but there were no similarity regarding financial statements frauds (corporate fraud).

Fraud training is central to corporate fraud detection (Ahmed & Shil, 2013; Appiah, 2015; Li & Byrnes, 2012; Yallapragada et al., 2012) because there has been a worldwide shortage of accounting graduates (Apostolou et al., 2015). Previous scholars (Emeh & Ogochukwu, 2013; Gerald & Weber, 2014; Imoniana et al., 2013; Oyedokun, 2014; Yallapragada et al., 2012) have attributed the low corporate fraud detection rate by external auditors to lack of fraud training. According to the ACFE (2010), the percentages of fraud detection by external auditors are as follows: 4.2% (United States), 4.1% (Canada), and only 7.3% (globally). Nevertheless, accounting students have been motivated by job security and satisfaction, aptitude for accounting, and the probable future earnings to pursue accounting in business schools (van Zyl & de Villiers, 2011).

Wells, founder and chair of ACFE, is cited to have observed that the majority of certified public accountants (CPAs) are ignorant about fraud detection because of 80 years of a lack of fraud training for accounting graduates (Brody et al., 2012). This view is supported by Appiah (2015) who found that fraud training received by accountants in college and from employers is inadequate. Nevertheless, CPAs have favorable

perception of the value of CFE certification, but they do not agree that such a certification provides career benefits related to external audit positions (Morgan & Nix, n.d, p.44). As a result, case studies can be designed to improve undergraduate auditing and forensic accounting students' abilities to recognize and respond to indicators of fraud (Dickins & Reisch, 2012). Fraud education has been found to be very important, even though training is constrained with cost and agreed upon pedagogical approaches compared to the traditional accounting curriculum (Hendi, 2013; Lawson et al., 2014; Mitric et al., 2012).

Apostolou et al. (2015) found only one article on auditing instructions and also none on forensic accounting during the review of 256 published articles in 6 journals between 2013 and 2014. As a result, the multi-billion dollar financial scandals have shown that perpetrators have prevailed in the war against fraud (Brody et al., 2012). The quality of accounting education has not declined due to competition from other business programs (Kranacher & Stern, 2004; Madsen, 2015) despite the fact that capacity has been a paramount determinant militating against accounting education (Reigle, Bunning, & Moore, 2009). Forensic auditors can use surprise audits to uncover organizational self-serving practices deeply embedded across the entire firm because such audits have specifically been designed to investigate the social infrastructure of organizations (Free & Murphy, 2015; Mitric et al., 2012).

The following factors have been identified by scholars (Abdullatif, 2013; Alabdullah et al., 2014; Albrecht et al., 2008; Alsboul & Alrabba, 2014) to account for the inability of external auditors to detect fraud beginning with the nature of fraud. The lack of fraud education on the fraud triangle among accounting students requires urgent

attention to equip them to detect fraud (Avellanet, 2010; Free & Murthy, 2015; Gates et al., 2011; Roxas, 2011). Second, the performance of limited audit samples and substantive testing is a factor as there is the need for auditors to perform more substantive procedures, such as APs because more APs are needed to reduce corporate fraud (Alshboul & Alrabba, 2014; Plumlee et al., 2015). Yet, a typical audit is based on a limited sample of transactions, which accounts for a small fraction of information. Third, the complexity of accounting records is a recognized factor. Forensic accounting applies complications in the treatment of some accounting transactions to audit procedures to provide evidence for the courts (Alabdullah et al., 2014; Avellanet, 2010; Yallapragada et al., 2012). Finally, there is a reluctance of employees to report fraudulent activities to regulators because corporate executives are often involved in corporate fraud (Feng, Ge, Luo, & Sherlin, 2011; Friedman, 2014). Furthermore, the majority of business executives would not report fraudulent activities to regulators, but would rather consider internal investigations (Afford & Bebensee, 2010).

The factors that accounted for limited fraud education, include the lack of room in the accounting curriculum and misunderstanding of the extent of the fraud problem because it is critical that accounting students learn the skills necessary to prevent, detect, and investigate fraud; nevertheless, the accounting students should develop the skills sets that will be applied in multiple areas in order to leverage those skills and abilities from one area to another (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003). Fraudulent activities have not been detected resulting in corporate scandals (Alleyne & Elson, 2013; Avellanet, 2010; Ghanzali, Rahim, Ali, & Abidin, 2013; Hayek, Hayek, & William, 2013; Lehmann, 2010; Lennox & Pittman, 2010; Rahman & Anwar, 2014;

Reidy & Theobald, 2011; Vakkur, McAfee, & Kipperman, 2010). Furthermore, there is no consensus on the specific fraud detection topics and courses that are missing from the undergraduate accounting programs. However, there is considerable agreement among accounting scholars (Alabdullah et al., 2014; Daniels et al., 2013; Kassem & Higson, 2012; Plumlee et al., 2015) for the introduction of forensic accounting courses, such as professional skepticism and critical thinking, into undergraduate accounting curriculum to train auditors to detect fraud (Alleyne & Elson, 2013; Daniels et al., 2013; Imoniana et al., 2013; Kassem & Higson, 2012; Nix & Morgan, 2013; Plumlee et al., 2015; Yallapragada et al., 2012). As a result, there was an urgent call by Li and Byrnes (2012) for auditors and forensic examiners to improve their fraud detection knowledge and skills. Accounting students who receive adequate training on the fraud triangle risk factors (e.g., such as incentive, opportunity, and rationalization) tend to be more precise in the assessment of fraud risk (Hansen & Peterson, 2010).

Davis et al. (2013) found the following considerations to be critical to the effectiveness of the forensic accountant: ability to simplify complex issues, ability to present opinions in a legal setting, and communication skills. For this reason, Davis et al.'s argument is supported by Meier et al. (2010), who determined that less than 16% of universities have a separate course in forensic accounting, making the call by scholars valid (see Daniels et al., 2013; Nix & Morgan, 2013). External auditors fail to identify fraud (Agarwal & Medury, 2014; Daniels et al., 2013; Nix & Morgan, 2013; Rahman & Anwar, 2014; Yallapragada et al., 2012) because they lack the adequate capacity (fraud education) and preparation (training) for fraud detection (Alleyne & Elson, 2013; Bolt-Lee et al., 2011; Mohammed & Tengku Akbar, 2011; Trompeter et al., 2014).

As far back as 1905, only five universities in the United States of America had accounting programs, but with time and efforts on the part of the accounting profession, considerable successes have been noted through the pursuit of goals of inclusion rather than exclusion, resulting in the outcome that made it possible for almost every college or university to have a formal accounting curriculum (Enofe, 2010; Enofe et al., 2012). Scholars (Enofe, 2010; Peterson, 2003; Rebele & Pierre, 2015) have identified the challenges of increased educator workload and crowded accounting curriculum as mitigating factors, but it is not clear whether the same variables are responsible for the lack of fraud education in undergraduate accounting programs or the missing fraud education is attributable to educators' lack of appreciation of the need for fraud education. Researchers on the shortcomings of fraud training argued that fraud detection topics and courses are missing from the accounting curriculum (Brody et al., 2012; Hendi, 2013; Lawson et al., 2014; Mitric et al., 2012; van Zyl & de Villiers, 2011). However, the reasons for their exclusion have not been addressed by scholars (French & Coppage, n.d; Nix & Morgan, 2013).

The suggestion for the incorporation of fraud education should be based on the expectations of corporate stakeholders (Agarwal & Medury, 2014; Higson, 2013; Mohamed et al., 2015; Okafor & Otalor, 2013; Tahir, Idris, & Ariffin, 2014) and an assessment of the training needs of external auditors, or the ability of accounting students to take an additional course load at the undergraduate level (French & Coppage, n.d). Audit expectations gap has arisen because of the modifications made to the role of auditors before the 20th century begun, because fraud reporting and detection were not considered to be a major objective of audits (Saeidi, 2012). Additionally, Alabdullah et

al. (2014) suggested that forensic accounting techniques be included in the educational curricula in the training of undergraduate accounting students through practical and theoretical classes. Fraud education can be incorporated into auditors' education, as follows: first, emphasizing on fraud in existing auditing courses (Shinde, William, Sallehu, & Merkle, 2015). Second, integrating fraud education into accounting systems courses (Shinde, William, Sallehu, & Merkle, 2015), and lastly, creation of entirely new class devoted to the use of fraud cases to permit accounting students to understand the nature and rudiments of corporate fraud (Shinde, William, Sallehu, & Merkle, 2015).

To begin with, Alabdullah et al.'s (2014) study is very important in indicating the need to combine theory and practice in the deployment of fraud education at the undergraduate level. However, the study does not include an evaluation of the expected competencies of accounting students, such as ethics (Dellaportas, Kanapathippillai, Khan, & Leung, 2014; Miller, Becker, & Pernsteiner, 2014), communication (Phillips & Wolcott, 2014; Siriwardane & Durden, 2014; Simon & Riley, 2014), analytical thinking, leadership, risk management and compliance, internal controls, accounting information system (Swanson, 2014; Ragland & Ramachandran, 2014; Wilkins, 2014), and external reporting (Chiang, Nouris, & Samantha, 2014; Ellerman, 2014; Jackson, 2014; Janse van Rensburg, Coetzee & Schmulian, 2014; Sangster, Franklin, Alwis, Abdul-Rahim, & Stoner, 2014; Tan, Chatterjee, & Bolt, 2014). Davis et al. (2013) asserted that the inability of CPAs to identify key issues, such as discovery, professional responsibilities, courts, and dispute resolution, information gathering, and expert testimony as well as the absence of investigative intuitiveness, are the most common reasons for their ineffectiveness. Moving to the basic competencies required of accounting students, the

scholarship on shortcomings of fraud training attributes to the lack of detection of corporate fraud by external auditors to the nonexistence of training (Imoniana et al., 2013; Yallapragada et al., 2012). There is no discussion on the specific fraud courses and topics that are lacking in the training. Brody et al.'s (2012) study indicated that undergraduate studies must provide a foundation for continuous professional education, graduate study, and professional experience.

The training of accounting students in fraud detection has become critical because most auditors lack an adequate knowledge of fraud required to improve on their performance during their careers (Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). As a result, accounting graduates should be trained about fraud in the financial statements and techniques for detecting fraud as required by auditing standards in order to contribute significant economic benefits to investors (Nelson & Below, 2012; Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). While Brody et al. (2012) made a laudable argument, they failed to address the absence of fraud education that is needed to help external auditors detect corporate fraud. Furthermore, the claim that CPAs have been ignorant of fraud for 80 years is an over exaggeration because forensic accounting has been known in western countries for more than 30 years (Alabdullah et al., 2014; Apostolou et al., 2013; Brody et al., 2012). As a result, the low corporate detection rate is not necessarily attributable to the lack of awareness, but rather CPAs' inability to detect corporate fraud due to the lack of fraud education (Gupta & Gill, 2012; Rahman & Anwar, 2014; Rixom, & Rosman, 2015).

An important study conducted by Armitage and Poyzer (2010) revealed that practitioners ranked fraud awareness and fraud techniques topics as seventh and 14th of

41 auditing topics. According to the Armitage and Poyzer, there are limited studies regarding auditing courses in university programs because few researchers have investigated the relative importance practicing accountants and academics put on specific auditing topics. The contributions of Armitage and Poyzer (2010) have been validated by Apostolou et al. (2015); therefore, the urgent need for accounting majors to pursue auditing as a significant career path. Against this background, this study will possibly provide foundational literature support and background on the shortcomings of fraud training to provide external auditors' perspectives on fraud education in order to detect corporate fraud.

Expected Competencies of Accounting Students

External auditors can detect corporate fraud provided they possess the expected and basic competencies, such as quantitative techniques, communication, analytical thinking, and technology, required at the undergraduate level for fraud education in the universities (Apostolou et al., 2013; Beasley et al., 2010; Brewer & Sorensen, 2014; Davis et al., 2013; Lawson et al., 2014; Hansen & Peterson, 2010; Mitric et al., 2012). According to Enofe et al. (2012) and Apostolou et al. (2015), information technology can result in increased audit efficiency through cost savings to clients and output quality, thereby making it possible for all accounting processing to be performed with a computer. However, there is negligible achievement in the field of fraud education and such shortfall provides an opportunity and avenue for potential perpetrators of corporate fraud (Lawson et al., 2014). For example, the PwC's training concentrated on the generation of millennial through five core competencies involving: business acumen, leadership skills, global acumen, expertise in developing professional interaction, and

exceptional technical abilities (O'Donnell, 2016). The goal of accounting education should be anchored on integrated competencies (foundational, broad management, and accounting) of the accounting students (Lawson et al., 2014; Lawson et al., 2015; Mitric et al., 2012).

The 21st century accountant should be an effective communicator and good listener in order to be engaged at all levels of management, capable of using effective interviewing skills backed by technology, which are considered essential for the auditor to uncover fraud because their employers no longer require employees to have knowledge in arithmetic and 10-key calculators (Enofe, 2010; Kranacher & Stern, 2004; Stone, Lightbody, & Whait, 2013). All in all, Lawson et al. (2014, 2015) and Tower-Clark (2015) recommended that accounting students possess integrated foundational competencies, such as communication, quantitative techniques, analytical thinking, and technology. The advantages associated with information technology to the external auditor, include the assurance of reduction in risk through controls circumvention, facilitation of the analysis of financial information, enhancement of the assessment of the performance of companies, and ability to help the planning of the nature, extent, and timing of audit evidence as well as allowance as to the accuracy, timeliness, and availability of accounting information (Enofe et al., 2012; Lawson et al., 2014; Lawson et al., 2015). The findings validated by prior literature (Andre & Smith, 2014; Apostolou et al., 2015; Bradbard, Alvis, & Morris, 2014; Davis et al., 2013; Howieson, Hancock, Segal, Kavanagh, Tempone, & Kent, 2014; Jones, 2014; Yap, Ryan, & Yong, 2014) were that analytical, detailed-oriented, and ethical characteristics, such as communication, analysis, and discovery, are the most important traits expected of the accountant. In

addition to accounting students possessing foundational competencies, the recommendation is for broad management competencies, which include leadership, risk management and compliance, and ethics with accounting competencies that revolve around internal controls, accounting information systems, and external reporting and analysis (Lawson et al., 2014; Lawson et al., 2015).

The accounting profession can achieve its lofty objectives in the 21st century through the development of solutions to barriers to accounting students' listening skills such as increased educator workloads, crowded accounting curriculum, limited educator-student interaction, students' perceptions of relevance of listening, and assessment of listening because the auditors' ability to detect fraud will ensure technical competence and credibility to the financial reporting process (Enofe, 2010; Fagarthy & Black, 2014; Hall, Pierce, Turnnell, & Walther, 2014; Kranacher & Stern, 2004; Pop-Vasileva, Baird, Blair, 2014). Similarly, Mitric et al. (2012) asserted that the detection of fraud is an interactive process involving transaction control, problem solving and investigation, the establishment of corporate control systems, and process testing of transactions. Furthermore, prior findings on basic competencies of accounting students included contemplation that daily quizzes can help accounting students to prepare for class, participate in class, and learn the material in order to develop the requisite competencies at the undergraduate level (Apostolou et al., 2013; Apostolou et al., 2015). Accounting students need to integrate their competencies in leadership, technology, and communication (Coetzee, Schmulian, & Kotze, 2014; Dulek, & Campbell, 2015; Elrod, Pittman, Norris, & Tiggeman, 2015; Hansen & Peterson, 2010; Lawson et al., 2014)

although, this might present a challenge to fraud education curriculum design in responding to the demand for skilled professionals (Hendi, 2013).

The accounting literature (Beasley et al., 2010; Mohammed & Tengku Akbar, 2011; Ole-Kristian et al., n.d) places significant emphasis on accounting students' competencies but the views of auditors on fraud detection have not been systematically examined by scholars (Apostolou et al., 2013; Beasley et al., 2010; Modugu & Anyaduba, 2013). According to the AICPA (2015), core competencies should be viewed as the unique blend of technology, knowledge, and human skills to provide value and results to the user and as a result, improving the core competencies is key to sustaining an advantage, both competitively and differentially in the market place. However, there has been no linkage between the external auditors' competencies and the missing fraud education from the undergraduate accounting curriculum to prepare them to detect corporate fraud. Furthermore, the research studies (Apostolou et al., 2013; Apostolou et al., 2015; Beasley et al., 2010) do not cover the appropriate fraud detection education required to detect corporate fraud by external auditors. The accounting education literature has tended to concentrate on educators' role instead of advancing proposals for students to enrich professional practice through a broader educational background which will enable them to identify, recognize, and assess the pressure that can lead to fraud, obtain the necessary information in order to organize and evaluate the data, and to report conclusions (Kranacher & Stern, 2004; Lee & Schmidt, 2014; Stone, Lightbody, & Whait, 2013).

Auditors should be equipped with training covering ethics, teamwork, and honesty because it is necessary to detect the early signs of distorted financial reporting

(Nelson & Below, 2012; Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). There are no known studies that focused on the contributions that can be made by accounting students towards their collective learning experience (Brooks & Simpson, 2014; Cilliers & de Villliers, 2011; Goldstein, Sauer, & O'Donnell, 2014; Hassan, Fox, & Hannah, 2014; Healy, McCutcheon, & Doran, 2014; Scully & Kerr, 2014; Stone et al., 2013; Reinig, Horowitz, & Whittenburg, 2014). The suggestion for the inclusion of ethics into accounting education by Mitrendu (2012) and Thomas (2012) needs further scrutiny because it is not clear whether ethics is viewed by the scholars to be a component of fraud education (Alabdullah et al., 2014; Daniels et al., 2013; Hendi, 2013) or if it should be a standalone course or program. Moving to the issue of fraud education as a response to modification of accounting education, a considerable number of scholars (Alleyne & Elson, 2013; Daniels et al., 2013; Imoniana et al., 2013; Nix & Morgan, 2013; Yallapragada et al., 2012) have provided much literature on the absence of fraud education from undergraduate accounting curriculum to detect corporate fraud.

Auditors should be equipped with training covering ethics, teamwork, and honesty because it is necessary to detect the early signs of distorted financial reporting (Nelson & Below, 2012; Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). The courses that are not perceived to be essential for auditing education include specialized accounting courses in computerization, construction, banking, foreign trade operations, inflation, insurance, hospitality, and the public sector (Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). The courses that are perceived not to be important in auditing by Uyar and Gungormus (2011) do suggest that the reasons are based on the fact that they

are not commonly taught in undergraduate accounting programs, but do not confirm the fact that the courses may likely not be relevant for corporate fraud detection.

Seventy-five percent of U.S. employers felt the need for universities to place greater emphasis on teaching accounting students skills associated with the ability to connect choices and actions to their ethical decisions because students with more knowledge have been perceived to be aware of ethical violations and the environment (Byrne, Fllod, & Griffin, 2014; Coetzee, Schmulin, & Kotze, 2014; Coetzee & Schmulin, 2013; Floyd, Atkins, & Caldwell, 2013; Loeb, 2015; Mohammed & Tengku Akbar, 2011; Rakestraw, 2014; Seow, Pan, & Tay, 2014). Consequently, the majority of employers have suggested that universities teach skills that can connect abilities of students with their actions and choices on the job (Dzuranin, Shortridge, & Smith, 2013; Floyd et al., 2013; Rakestraw, 2014), but it is not clear whether the employers are implying accounting students' competences, fraud education, or other skills sets.

In 2005, the AICPA grouped core competencies into three categories: (a) broad business perspectives, (b) functional competencies, and (c) personal competencies. Unlike the literature above, scholarly works on accounting students' competencies do not address the modification needed in accounting education resulting from the lack of fraud education in accounting undergraduate programs to detect corporate fraud (Hansen & Peterson, 2010; Lawson et al., 2014; Lawson et al., 2015). Consequently, the AICPA (2015) has reclassified the three broad competencies into five-fold core competencies: (a) communication and leadership skills, (b) strategic and critical thinking skills, (c) interpretation of converging information, (d) technology adeptness, and (e) a focus on the customer, client, and market. As shown in Table 1, the AICPA's five-fold core

competencies for the preparation of traditional accountants are consistent with prior research findings regarding the required skills set with the exception of interpretation of converging information skill. Additionally, apart from critical thinking or problem-solving skills, there is no convergence between the AICPA's core competencies and the anecdotal evidence on skills required by forensic accountants. Consequently, there are no known research studies that suggested for the inclusion of the AICPA's core competencies into the training of forensic accountants. In summation, the literature on expected competencies of the accounting students converge on communication, quantitative techniques, analytical thinking, and technology; leadership; risk management and compliance; ethics; internal controls; accounting information system; and external reporting and analysis (Bertomen & Marinovic, 2016; Gates et al., 2013; Lawson et al., 2015; Lawson et al., 2014).

Further research is proposed to examine the relevant skills needed by a forensic accountant from the point of view of the practitioner (Ramadhan, 2015). Nevertheless, Apostolou et al. (2013), Gates et al. (2013), Lawson et al. (2014), and Lawson et al. (2015) have found that most accounting students are not proficient in technology training even after finishing their undergraduate studies even though the most important professional skills revolve around technology, critical thinking, and communication. Nevertheless, educational technology has attracted much attention in the accounting literature (Apostolou et al., 2015; Humphrey & Beard, 2014; Fatemi, Marquis, Wasan, 2014, Khanlarian & Singh, 2014). The call made by researchers (Hanson & Peterson, 2010; Lawson et al., 2014) for the integration of competencies on foundational, broad management, and accounting should be agreed on by accounting scholars since there is a

gap between the competencies possessed by accounting graduates and the expectation of employers; the teaching of accounting should transcend the traditional methodologies to a more balanced approach (Apostolou et al., 2013).

The factors affecting business ethics include: ethical education, ethical research, corporate social responsibility, and ethical behavior in society (Holland & Albrecht, 2013) because business ethics can influence students' moral sensitivity and awareness, moral judgment, and moral intentions in ethical decision making (Rodgers, Soderbon, & Guiral, 2015; Shawver & Miller, 2015). As a result, researchers have called for further studies to examine how educators can incorporate ethical issues into business courses at the undergraduate level for students to demonstrate ethics knowledge (Botes, Low, & Chapman, 2014; Kidwell, Fisher, Braun, & Swanson, 2012; Sanchez, 2015). For that reason, the literature on fraud education should indicate the expected competencies of the accounting students to enable external auditors address the possible lack of fraud courses and topics in their undergraduate curriculum. The marketplace requires an accountant to have certain skills and core characteristics as well as relevant credentials (Davis et al., 2013; Jelinek, 2015; Mohammed & Tengku Akbar, 2011; Osgerby & Rush, 2015; Siriwardane, Hu, & Low, 2014).

There is also the need for creativity to help address effective core competencies for accounting professionals because 80% of employers have attributed the absence of competence to educational gaps in training and knowledge (Apostolou et al., 2013; Mohammed & Tengku Akbar, 2011; Sajay, 2015). As a result, accounting educators should examine their course delivery and assessments systems in order to determine whether more hours should be integrated into undergraduate accounting or business

courses (Bertheussen, 2014; Lambert, Carter, & Lightbody, 2014; Nnadi & Rosser, 2014; Stone, Fiedler, & Kandunias, 2014). In the like fashion, Bailey (2010) identified three of the top five competencies to be possessed by internal auditors: (a) communication skills (report writing and presentation, oral and written), (b) problem identification and solution skills (conceptual, analytical thinking, and core), and (c) staying abreast with regulatory changes and industry standards. While auditing covers planning, risk assessment, internal controls, audit evidence, reporting; fraud prevention and deterrence revolve around detection, investigation, and remediation, and forensic accounting includes accounting investigation and litigation matters (Kranacher, Morris, Pearson, & Riley, 2008).

The inexperience of external auditors with fraud during their career (Noviyanti & Winata, 2015) can be linked to lack of fraud training and not a lack of awareness of fraud (Alabdullah et al., 2014; Brody et al., 2012). The AICPA's (2015) core competencies have been supported by current literature in terms of communication (Bressler, 2011), critical thinking (Plumlee et al., 2015), and technology (Lawson et al., 2014; Lawson et al., 2015). However, what remains unclear is the inclusion of project management, resource management, and interaction skills within the detailed contents of the 2005 classification.

Response to the Modification of Accounting Education

Fraud education serves as the starting point in the modification of accounting education by the accounting profession and scholarship (Gates et al., 2011; Hendi, 2013) due to the corporate scandals that engulfed the United States of America involving companies, such as WorldCom, Enron, HealthSouth, and Adelphia. Kassem and Higson

(2012) posited that external auditors should be given proper training on how to detect fraud. The literature on fraud education as a response to modification of accounting education provides background information to the accounting profession by which the lacking fraud education from undergraduate accounting studies need to be explored (Alabdullah et al., 2014; Kranacher & Stern, 2014; Lord, 2010; WVU, 2007). Furthermore, there has been an argument to make important changes to accounting education (French & Coppage, n.d; Singer & Wiesner, 2013; Spiceland, Spiceland, & Schaeffer, 2015), but the issue is yet to be addressed by accounting educators and the profession.

There is the need to bridge the gap between CPAs' education and practice through the design and revision of accounting programs in order to apply real-world applications to their studies to develop qualified students and also attract experienced faculties (Al-Hadrami & Hidayat, 2015; Burke & Gandolfi, 2014; Kazil, Cetin, & Bulunmaz, 2014; Lawson et al., 2014; Nodding, 2015). Accounting students are posited to succeed when exposed to relevant auditing topics in their university curriculum if practitioners provide the right information required to help accounting students succeed in the auditing profession (Bressler, 2011; Armitage & Poyzer, 2010; Bolt-Lee et al., 2011; Hendi, 2013; Phosrichman & Ussahawanitchakit, 2013; Song, 2011). Consequently, audit manager and supervisors have developed a training framework through *real-time* feedback and feed-forward plus formal programs, where audit partners periodically assemble to brainstorm on performance of the individuals within a team to ensure that auditors operate *at the level* from the *below level*, in order to function *at the next level*, or *significantly at the next level* (O'Donnell, 2016).

The increasing initiatives proposed for accounting education confirm the notion that accounting education should be geared towards long-term career orientation in order to provide evidence to validate the need to revise the audit structure to respond to fraud exposed in recent times (Chen, 2014; Dobre, Popa, & Niculita, 2013; Hendi, 2013; Hussain et al., 2010; Lawson et al., 2014). However, it is not clear whether external auditors will be effective in detecting corporate fraud when fraud education is sufficiently received in their undergraduate accounting programs (Brink, Lowe, & Victoravich, 2013; Cohen, Krishnamoorthy, & Wright, 2010; Gbegi & Adebisi, 2014; Meier et al., 2010; Nix & Morgan, n.d; Trompeter et al.,2014). There is the urgent call for accounting educators to reassess their role in training accounting students to detect fraud (Appiah, 2015; Bernardi & Zamojcin, 2014; Delande, Bernardi, & Zamojcin, 2014; Durban & Webber, 2014; Holderness, Myers, Summers, & Wood, 2014; Zamojcin & Bernardi, 2013). Nevertheless, the fraud courses to be taught at the undergraduate level should include all topics perceived as important by external auditors (Popoola et al., 2014: Ramadhan, 2015).

The analysis of scholarship on fraud education in undergraduate accounting curriculum has been based on the key study of Apostolou et al. (2013) on accounting education review from 2010 to 2012. Apostolou et al. reviewed the works of 700 scholars across the world, who contributed to 291 descriptive and empirical studies and 104 institutional cases published in six journals, thereby updating accounting education scholarship review to three decades. The review of accounting education literature by Apostolou et al. was organized under the following themes: students, faculty issues, curriculum, and assurance of learning. However, prior authors (e.g., Meiers et al., 2010)

have observed that more scholars in accounting should develop a course in the area of forensic accounting and fraud examination. Secondly, it was noted that more recent fraud cases have brought about laws aimed at the accounting profession and organizations to effect changes to accounting curriculum in order to prepare students in the area of fraud examination (Meiers et al., 2010). However, contrarily, Dellaportas and Hassall (2013) suggested that accounting education could be relocated to workplace, prisons, and meetings where important decisions are taken or a court case in which accountants are major players.

There is the absence of supporting forensic consulting institutions coupled with inherent weaknesses in traditional auditing (Alabdullah et al., 2014), resulting in the urgent need to integrate fraud detection topics and courses into the existing undergraduate accounting curriculum in order to detect corporate fraud (Daniels et al., 2013; Nix & Morgan, 2013). Empirical evidence shows that business schools have been very slow in adopting programs and courses to respond to this need (Meier et al., 2010; Rebele & Pierre, 2015). Therefore, accounting educators in business schools should offer a separate course on fraud accounting regarding selected fraud topics and obtain help in designing accounting curriculum (Daniels et al., 2013). The inclusion of fraud detection topics and courses into the existing undergraduate accounting curriculum may be the best way for business schools to equip their students with corporate fraud detection capabilities (Meier et al., 2010). In contrast, Gates et al. (2011) made a case for the integration of fraud education into all business curriculums instead of only undergraduate accounting curriculum because fraud is not just an accounting issue, but a real business issue. The views of Gates et al. (2011) are contrary to research studies by Daniels et al.

(2013) and Nix and Morgan (2013) that indicated the need for the integration of fraud education into the undergraduate accounting curriculum because not all undergraduate students will proceed to the graduate school where 58% of fraud education is taught (Davis et al., 2013).

Accordingly, there is the call across the nation by practitioners for educators to explore the perceptions of accounting curriculum, with a view to suggest fraud detection topics and courses to detect corporate fraud (Alleyne & Amaria, 2013; Carpenter, Durtschi, & Gaynor, 2011; Chen, 2015; Daniels et al., 2013; Epps, Epps, & Campbell, 2015; French & Coppage, n.d; Nix & Morgan, 2013). Perhaps the suggestion by Bailey (2010) could help practitioners and educators consider structured evaluation rubrics to assess the communication skills of auditors to identify deficiencies so as to plan for enhancements. In addition, problem identification skills could be improved through the application of case studies to provide a systematic process for solving problems (Brailey, 2010). Furthermore, a call was made by Davis et al. (2013) for the practitioner and academic communities to collaborate and develop congruent and consistent educational opportunities before and after university degrees are attained. There is an urgent proposal for accounting programs in higher education to integrate major modifications to prepare students with the requisite fraud detection skills so the improved auditor education can equip the auditor in the identification of fraud in the conducting of external audits (Alleyne & Amaria, 2013; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Mitric et al., 2012; Nix & Morgan, 2013). This view is based on the argument that auditor education can be highly associated with the detection of fraud (Alleyne & Amaria, 2013). As a result, accounting students can be taught fraud detection

topics and courses to enhance their ability to make informed judgment about fraud (Carpenter, Durtschi, & Gaynor, 2011).

For the most part, Alleyne and Amaria's (2013) position indicates the reason why there are poor corporate fraud detection rates by external auditors; it is because they lack fraud education and there is no convergence among scholars on the specific forensic accounting courses to be incorporated into accounting education even though the choice of the undergraduate level is not in dispute (Alabdullah et al., 2014; Bressler, 2011; Daniels et al., 2013; Immoniana et al., 2013). In a landmark research study conducted by Apostolou et al. (2013), a considerable amount of additional works was provided as part of 30 years of literature on accounting education covering faculty, curriculum, instruction, and technology. Apostolou et al. asserted that Chaffey, Van Peursem, and Low (2011) conducted a study in New Zealand by presenting evidence on the teaching practice subjects and techniques that may be valuable to the future of auditing profession, such as lecture exposure, audit skills, audit topics, learning activities, and disciplinary knowledge because participants showed preferences for audit topics that required judgment, practical skill, and ethical judgments. In their contribution to the debate on modification to accounting education, Daniels et al. (2013) corroborated the findings of Meier et al. (2010) to the effect that business schools have been slow in the adoption of courses and programs in forensic examinations, perhaps due to financial constraints.

Indeed, the identification of financial constraints by scholars (Daniels et al., 2013; Meier et al., 2010) is corroborated by Hendi (2013) who also identified additional constraints, such as administrative interest and support, faculty interest, flexibility in curriculum contents, instructional materials, and authoritative standards and guidelines.

As a result, Dellaportas and Hassall (2013) observed that the pedagogic methods of traditional accounting education have been criticized because of a lack of out-of-the-classroom experiences. Accordingly, the critical issue for the external auditor is either to recognize that fraudulent transactions may be present in a situation or may incorrectly conclude that fraudulent transactions are present, resulting in the performance of unnecessary extended audit procedures (Dilla & Raschke, 2015). Therefore, accounting students can be instructed using cases, brainstorming, short movies (15-25 minutes) and videos to teach auditing topics, such as fraud detection courses to illustrate the concepts and applications (Apostolou et al., 2013; Chen, Trofman, & Zhou, 2015; Diagle, Hayes, & Morris, 2014; Trofman, Bauer, & Humphrey, 2015). The use of SEC files and the actions of individuals regarding the issuance of auditing and accounting enforcement releases could help auditors identify perpetrators' actions (Apostolou et al., 2013).

The market place expects accounting students to earn master degrees or develop specialized skills before entering the profession, and accounting students have responded to the demands of the stakeholders (investors, entrepreneurs, and governments) to be equipped with standardized global principles (Kazil et al., 2014; Schiavone, 2015). However, it is not clear if the market place expectation of accounting students to enter the job market with a master degree is rooted in the minimally-taught fraud education at the undergraduate level of accounting education (Kazil et al., 2014; Meier et al., 2010; Schiavone, 2015). On-the-job training can be used after accounting students have been exposed to fraud education, including ethics in universities (Beets, 2011; Chaffey et al., 2011; Davis et al., 2013), because ethics can be important to the accounting profession (Armitage & Poyzer, 2010). The accounting research (Alabdullah et al., 2014; Bolt-Lee

et al., 2011; Bressler, 2011; Daniels et al., 2013; Immoniana et al., 2013; Li & Byrnes, 2012) on the learning objectives and contents of fraud education focuses on the need to equip external auditors with requisite training to enable them detect corporate fraud. However, no mention is made of how to address the other curriculum issues identified by Apostolou et al. (2013), such as teaching and learning methods, assessment approaches, synchronizing the learning objectives and activities, and assessments as well as subject orientation of those courses and topics in business schools. Similarly, accounting curriculum should include adoption of major modifications to provide students with the fraud education skills needed to thrive in the future so as to continue to supply competent graduates (Alleyne & Elson, 2013; Apostolou et al., 2013; Bolt-Lee et al., 2011; Ogoun & Obara, 2013; Sarwoko & Agoes, 2014).

Unlike the scholars Daniels et al. (2013) and Nix and Morgan (2013), Dellaportas and Hassall (2013) provided guidance on instructional approaches, but did not provide improvements on the contents of the curriculum to provide the fraud education missing from undergraduate accounting curriculum in order to detect corporate fraud. On the whole, the scholarship of Daniels et al. (2013), Nix and Morgan (2013), and Dellaportas and Hassall (2013) included addressing of the issues of instruction and curriculum in order to elaborate on critical issues, such as technology and faculty (Apostolou et al., 2014). As a result, Alabdullah et al. (2014) justified the application and development of forensic accounting on the grounds of the extensive use of false accounting information and the inability of accounting legislation to solve fraudulent problems. Specifically, the perspectives of external auditors on the fraud detection topics and courses that are absent

from undergraduate accounting curriculum in order to combat corporate fraud is missing (Daniels et al., 2013; Lawson et al., 2014; Meier et al., 2010; Nix & Morgan, 2013).

However, before ethics is discussed as a component of fraud education, this study will show that the learning objectives of fraud education is important to the curriculum variable as suggested by Apostolou et al. (2013). The challenges of fraud education implementation, such as financial, faculty interest, flexibility in curriculum content, administrative interest and support, instructional material, and authoritative standards and guidelines should be discussed (Daniels et al., 2013; Hendi, 2013; Meier et al., 2010). The ethical dilemma-like conflict of interest may occur when relationships impair the objectivity of the performance of an undertaking resulting in harm or exploitation to respond to the missing fraud education among external auditors (APA, 2012).

Ethical Component of Fraud Education

Ethics is a branch of philosophy that concentrates on man's way of life through the lens of what is viewed as right or wrong (NeeSham & Gu, 2015; William, 2011) but the professional ethics of the auditor demand the demonstration of proof of objectivity, independence, and professionalism in the discharge of statutory audit engagement, and as a consequence, it has been suggested that accounting education should cover ethics, professional judgment, corporate social responsibility, fraud, and governance (Ardelean, 2015; Cameron & O'Leary, 2015; Gordon, 2015; Jorge, Pena, & de los Reyes, 2015). A number of scholars (Alabdullah et al., 2014; Barman & White, 2014; Daniels et al., 2013; Hendi, 2013) have made contributions on ethics as a component of fraud education and have also been prompted by audit failures, culminating into the discussion of the introduction of the course in universities. Therefore, the auditing profession should be

built on ethics and morality to permit ethical decisions to be made to inspire trust so that ethical conflicts will be resolved with appropriate training and awareness combined with practical insight into the profession from experienced people (Ardelean, 2015; Jelinek, 2015; Mitrendu, 2015; Soltani, 2014).

The accounting literature needs to be examined to ensure that ethical values can be passed on to university students from the incorporation of ethics in accounting curriculum to reap best results through the application of new technologies, such as multimedia, learning digital badging, and micro learning to enhance ethical learning (Mitrendu, 2012; Pope, 2015). Ethical dilemmas arise due to the fact that an auditor's loyalty is divided between personal interest and public interest or between the client and the public (Ardelean, 2015; Mastracchic, Jimenez-Angueira, & Toth, 2015). The study of ethics determines the attitude of the external auditor in promoting societal interest because of the public trust in the accounting profession (Ardelean, 2015; Mastracchic et al., 2015). Therefore, accounting educators have a pivotal role to play in reducing the entire gap in the use of innovation and factors that affect the correlation between ethical education and the personal characteristics of an individual such as age, gender, and education (Wang & Calvino, 2015).

In the past, ethical education has focused on the use of post-conventional modes of deliberate reasoning, instead of relativism and egoism, in rewarding statutory auditors for ethical service, but through increased participation of academic institutions, educators have devoted much attention to the discussion of ethics at the intermediate level without sacrificing coverage of the material (Mastracchic et al., 2015; Thomas, 2012). Ethical conflict can arise when a given situation demands the external auditor acts in a manner

that is contrary to regulation (Ardelean, 2015; Mitrendu, 2015) because education is based on values and also provides the basis for settling conflicts between external auditors' personal interest and their public interest which may be at variance (Ardelean, 2015). As a result, there is the need to add ethical training in virtue and honesty (Afford & Bebensee, 2010; Austill, 2011; Miller & Becker, 2011) because there is convergence among academic researchers to the effect that accounting students' responses to ethical dilemmas in the classroom setting might not necessarily be indicative of the way they will react to real-world ethical situations (Wang & Calvano, 2015).

According to Sisaye (2011), fraud education has not been offered to prepare the auditor to detect fraud even though ethical training is implied in auditing (see also Carpenter, Durtschi, & Gaynor, 2011; Dellaportas & Hassall, 2013; French & Coppage, n.d). Ethics can improve the moral thought of the audit practitioners because of the association between accounting training and ethics (Andersen, Zuber, & Hill, 2015; O'Leary & Steward, 2013; Schultz, 2014; Soltani, 2014). Arguably, educators and practitioners should think about topics in ethics, like corporate social responsibility, governance, professional judgment, and fraud so future studies could include examination of how individuals respond to ethical education (Alzsila & Ikaunieks, 2014; Chakrabarty & Bass, 2015; Gordon, 2015; Koumbiadis & Pandit, 2014; Wang & Calvano, 2015). Similarly, accounting students should be exposed to business culture using alternate models that are founded on social responsibility to demonstrate effective ethical behavior and enhance undergraduate students' critical thinking (Baden & Parks, 2013; DeSimone & Buzza, 2013). Ethical education can prepare accounting students to resolve ethical conflicts (Dellaportas & Hassall, 2013).

By the inclusion of ethics scholarship (Alabdullah et al., 2014; Barman & White, 2014; Bressler, 2011; Daniels et al., 2013; Davis et al., 2013; Gates et al., 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013; Soltani, 2014) in this study, consensus may be built to incorporate ethics into fraud education. Similarly, any relationships that will impair the objectivity and effectiveness of the conduct of audit work should be avoided (American Psychological Association [APA], 2012). Moving to the experiential learning model (ELM) as the best deployment methodology for accounting education at the undergraduate level will likely assist the accounting profession with the role of ethics in fraud accounting (Alabdullah et al., 2014; Hendi, 2013; Mastracchic et al., 2015; Mitrendu et al., 2012; Pope, 2015). The implementation of ELM with respect to ethics will also possibly provide the accounting profession with foundational information to deal with ethical conflicts generated by financial conflict of interests, which revolve around, stock ownership, gifts, compensation employment, intellectual property, speakers' fees, paid consultancy, trips, paid expert testimony, and advisory board service (Fiore, 2012).

For effective fraud training, the Northern Illinois University College of Business in 2006 introduced the Build Ethical Leaders using Integrated Ethics Framework (BELIEF) program to increase student awareness and also strengthen the students' decision-making abilities regarding ethical issues because there had been a willingness for trends to be adopted in order to build solid ethical decision-making skills that current and future business leaders would need (Dzuranin, Shortridge,& Smith, 2013; Pope, 2015). The previous literature on ethics as a component of fraud education involved, first of all, ethics being critical for every business to inculcate morality to support

organizational ethical behavior; yet it is not clear how ethical training can prepare external auditors to detect corporate fraud (Adelean, 2015; DeSimone & Buzza, 2013; Fiore, 2012; Gordon, 2015; Hendi, 2013; Hussain et al., 2010; Koumbiadis & Pandit, 2014; Mitric et al., 2013). The teaching of ethics could also help corporate executives prevent fraud, but teaching auditors to detect fraud using ethical education needs further research. Second, the relationship between audit failure and ethics needs further scrutiny by scholars (Ardelean, 2015; Gordon, 2015; Koller, Patterson, & Scalf, 2015) because ethics is supposed to benefit accounting practitioners in their ability to recognize, resolve, and address ethical dilemmas (Al-Hadrani & Hidayat, 2015; Barman & White, 2014; Dellaportas & Hassall, 2013; Poon & Ainuddin, 2011). Third, the issue of whether ethics should be a fraud detection course or a forensic accounting topic is yet to the agreed upon by accounting scholars (Alabdullah et al., 2014; Daniels et al., 2013) because ethics deals with the goal of providing proper answers to what is not known, which may be attributed to a lack of rational understanding (William, 2011). Fourth, the incorporation of ethical virtues, such as honesty, courage, trust, integrity, and loyalty into undergraduate accounting fraud education is a laudable idea (Afford & Bebensee, 2010; Miller & Becker, 2011), but questionable because there is an established association between the teaching of ethics in the class room and real-world ethical challenges (Caldwell, Hayes, & Long, 2010; Koumbiadis & Pandit, 2014; Vaiman & Rikhardsson, 2015; Wang & Calvano, 2015). Finally, the variables of ethics have been identified as the level of education (Koumbiadis & Pandit, 2014) and personal characteristics of individuals, such as age and gender (Wang & Calvano, 2015).

Ethics position theory suggests that individuals' ethical perspectives can influence moral judgments, actions, and emotions in ethical dilemmas, therefore, those with power to improve ethical education should propose future studies regarding other aspects of auditing and accounting bordering on ethics in order to provide a reflection based on their obligation to business schools and society (Floyd, Atkins, & Caldwell, 2013; Thomas, 2012; Wang & Calvano, 2015). There was an urgent call by Wang and Calvano (2015) for accounting scholars to examine how individuals, such as external auditors, respond to ethics education. Perhaps the strongest recommendation advanced by scholars should be pointed to the incorporation of ethical topics throughout the undergraduate accounting curriculum to emphasize the strongly held belief that ethics should play a central role in every professional's life and this should lead colleges to be encouraged to ponder the delivery of ethical education (Christensen, Cole, & Latham, 2016; Dzuranin, Shortridge, & Smith, 2013; Rakestraw, 2014).

Adelean (2015) postulated that ethics can be classified into five categories. First, utilitarian ethics is where the actions that can create the most outcomes and benefits are favored consequences. Second, correctness ethics is where correctness and quality are used to distinguish alternatives. Third, deontological ethics is the case in which ethical responses and decisions are built on principles and rules. Fourth, virtue ethics is where ethical choices are justified on the needs of others because devotion to excellence may be the outcome of both spiritual and moral development. Finally, ethics of common good, allow for the development of individuals through courage, honesty, trust, and integrity (Adelean, 2015).

Table 1 shows that ethics skills are critical for both traditional (auditor) and the forensic accountants because ethics of common good will inculcate key attributes into fraud training in undergraduate accounting education, as follows: virtue, citizenship, respect, truthfulness, accountability, transparency, loyalty, responsibility, and credibility of financial statements (Afford & Bebensee, 2010; Austill, 2011; Buys et al., 2012; Verschoor, 2015). Furthermore, virtue ethics can prepare external auditors to respond to investor confidence, as well as credibility of the financial statements to address the expectations gap of corporate stakeholders including creditors and investors (Afford & Bebensee, 2010; Agarwal & Medury, 2014; Yallapragada et al., 2012). Deontological ethics may resonate with both traditional and forensic accountants because financial accounting is rule and principle-based (Hendi, 2013; Mitric et al., 2012). Correctness ethics can prepare traditional accountants (auditors) to strive for excellence in order to detect corporate fraud (Afford & Bebensee, 2010; Agarwal & Medury, 2014; Hendi, 2013; Mitric et al., 2012; Yallapragada et al., 2012). By the inclusion of ethics in accounting education as a fraud course, background is provided to the accounting profession (Al-Hadrani & Hidayat, 2015; Branson, Chen, & Anderson, 2015; DeSimone & Buzza, 2013; Fredin, Fuchsteiner, & Portz, 2015).

Experiential Learning Model

The seminal works of Kolb (1984) on the ELM is an effective pedagogical approach that is suitable for university programs because emphasis is placed on the role of formal education in an individual's development for global citizenship (Bhatti, Larimo, Coudounaris, 2015; Brooks & Simpson, 2014; Finch, Peacock, Lazdowski, & Hwang, 2015; Kolb, 1984; Marin, 2015). As used in accounting education, O'Leary and

Stewart (2013) posited that educators should reflect on learning styles before employing the appropriate teaching methods because students have expressed a preference for passive learning style in spite of the level of education. Furthermore, Hill and Johnson (2014) applied the ELM to share a new approach for building core competencies required by employers of accounting professionals, such as solution-oriented, peer collaboration, communication, and problem solving. Similarly, Laing (2013) and Asare, McKay-Nesbitt, and LeMaster-Merrick (2014) used the model to study business disciplines including an auditing project and concluded the evaluation indicates that students perceived the auditing project to be critical to their learning and development of accounting, communication, and teamwork skills.

The ELM is a process of creating knowledge from transformed experiences (Kolb, 1984) to provide critical fraud (ethical) education to trainee accountants (O'Leary & Steward, 2013). Traditional accounting checks have indicated that auditors should focus attention on variables outside of accounting books due to cultural changes necessitated by Social learning theory (Hollow, 2014; Walker & Holtfreter, 2015). As a result, the experiential learning literature provides context to understanding fraud education from undergraduate accounting programs that prepared auditors to detect corporate fraud from their field experiences (Akpinar, del Campo, & Eryarsoy, 2013; Baden Parkes, 2013; Brooks & Simpson, 2014; Davidovitch, Yavich, & Keller, 2014; DeSimone & Buzza, 2013; Hill & Johnson, 2014; Laing, 2013; O'Leary & Stewart, 2013; Plesoianu & Carstea, 2013; Sewchuk, 2005).

ELM was first used by Kolb (1984) and later Sewchuk (2005) to trigger adult learning with a concentration on experiences that have been represented by a task or a

way of solving a problem through purposeful student engagement (Akpinar et al., 2013; Brooks & Simpson, 2014; Plesoianu & Carstea, 2013). This engagement can be accomplished through optimized learning transfer, real-life experiences, and integration of practice and theory to shift learning responsibilities to students (Akpinar et al., 2013; Brooks & Simpson, 2014; Plesoianu & Carstea, 2013). According to Sewchuk, ELM is a framework that can help leverage the styles of learning to engender critical thinking through active learning. The most experiential learning in business schools revolves around the use of guest speakers, internships, team-building, and simulations (Baden & Parkes, 2013). Some scholars (Plesoianu & Carstea, 2013; Sewchuk, 2005) have also made contributions to the discussion on ELM. The ELM is a continuous learning process by which knowledge is transformed through experience into a current cognitive framework so as to change the way individuals think and behave (Li & Armstrong, 2015). Secondly, experience can be gained from either apprehension or comprehension through a process of reflection, yet an extension can be achieved through active experimentation (Sewchuk, 2005).

There are four models or learning styles based on Kolb's (1984) work: (a) accommodating, (b) converging, (c) diverging, and (d) assimilating (see also Plesoianu & Carstea, 2013; Sewchuk, 2005). Accommodating learners learn through experience or apprehension and therefore internalize the experience through active experimentation, while diverging learners learn by apprehension, but the experiences are internalized through thinking or reflection (Boneck, Barnes, & Stillman, 2014; Kolb, 1984; Plesoianu & Carstea, 2013; Sewchuk, 2005). Similarly, converging learners learn through abstract ideas at variance with actual experience (comprehension) and internalize the learning

through extension, but assimilating learners learn best by comprehension, yet internalize the learning by intention (Kolb, 1984; Plesoianu & Carstea, 2013; Sewchuk, 2005). However, Plesoianu and Carstea (2013) asserted that experiential learning is focused on each student's self-interest from experiences, capabilities, and knowledge obtained in order to orient towards current needs. Furthermore, while the reflective initial experience is to formulate findings to be applied in procedures to analogous situations, participatory involvement becomes the beginning phase of the learning experience (Plesoianu & Carstea, 2013). As a result, a source of feedback is generated to support correction and future activities (Plesoianu & Carstea, 2013). Summarily, knowledge and understanding can be enhanced through the study material, the inclusion of students in the learning process, and active learning to help accounting students address curriculum load to ensure proper appreciation of study material to handle corporate fraud problems (Davidvitch et al., 2014).

Accounting educators can apply the ELM to facilitate learning through learner encouragement to discover the needed resources to adequately answer questions because reflection on practice has been established as a way of improving professional development (Sewchuk, 2005). In recent times, scholars (Akpinar et al., 2013; Sewchuk, 2005) have asserted that educators who apply the ELM should act as facilitators and not dispensers of information in assisting learners find their own knowledge. Therefore, learners are assisted through experience based on critical thinking skills to follow a step-by-step approach to offer the support needed to affect cooperative outcomes, while denying adverse consequences on competition (Akpinar et al., 2013; Sewchuk, 2005). The model has been used in the past to establish association between personal

development, work, and education (Brooks & Simpson, 2014), as a study approach to accumulate knowledge and professional career capabilities (Plesoianu & Carstea, 2013), providing opportunity for the integration of older peoples' voices in policy, practice, and research (Munn-Giddings, McVicar, Boyce, & O'brien, 2016), and to inspire tomorrow's business leadership (Baden & Parkes, 2013). Similarly, the model can be employed to improve undergraduate degree efficacy (DeSimone & Buzza, 2013), compare ELM to mathematics and family consumer science (Brooks & Simpson, 2014; Davidvitch et al., 2014), and provide implications for graduate employment improvements through the attainment of personality qualities, skills and competencies (Brooks & Simpson, 2014), and cooperation and competition (Akpinar et al., 2013).

Application of the ELM as a framework to fraud education to develop and provide external auditors with a solid knowledgebase with which to further their auditing practice can be achieved through implicit learning, which is achieved through games, hands-on activities, and life experiences, and in combination with explicit learning involving textbook reading, pictures, interviews, coaching, watching of videos, and listening to lectures (Cornell, Johnson, & Schwartz, 2013; Fajardo, 2014; Gentelli, 2015; Griffiths, 2015; Khalil, 2015; Kolb, 1984). The expectation is that the ELM will provide the accounting profession with a program design using concrete experience, guided reflection, active experimentation, and abstract conceptualization as well as the need to develop positive attitudes and beliefs regarding sustainable issues of fraud education (Baden & Parkes, 2013; Dellaportas & Hassall, 2013; Gates et al., 2011; Sewchuk, 2005). The strategy of experiential learning is to be a part of the perception of planning undergraduate accounting courses based on learning-focused teaching methodology to

emphasize learning outcomes. The challenge will be for accounting educators to synchronize teaching approaches such as assignments based on writing-to-learn and teamwork into accounting courses to achieve learning outcomes through goal evaluation (Betts & Healy, 2015; Davidvitch et al., 2014; Grimm, 2015; Lawson et al., 2015; Zigmont, Edwards, & Mitchell, 2015).

There are no known studies that involve the application of ELM to fraud education, even though there are an increasing number of researchers focusing on the application of service learning in the accounting curriculum (Laing, 2013; Lennon-Dearing, 2015; Perkins, Perkins, & Craig, 2014; Schelle, Petracchi, & Weaver, 2014). As a consequence, accounting education scholarship has been based on actual learning styles of accounting students and accounting students have been described as assimilators, divergers, convergers, and accommodators (Kolb, 1984; O'Leary & Stewart, 2013). The four learning styles identified by prior researchers Kolb (1984), Sewchuk (2005), and Plesoianu and Carstea (2013) have been validated by O'Leary and Stewards (2013) who found that accounting students have all four learning styles (assimilators, divergers, accommodators, and convergers).

By the inclusion of this model, it may be possible to provide the interaction between learning styles and fraud education in order to assist external auditors build core competencies (problem-solving, communication, peer collaboration, and solution-orientation) through the study of auditing in their preparation for corporate fraud detection (Hill & Johnson, 2014; O'Leary & Stewart, 2013). Any modification to accounting education to incorporate fraud detection courses and topics in the undergraduate accounting curriculum could include employment of the ELM (active

experimentation, reflection based on critical thinking, abstract conceptualization, comprehension by intension or extension) to prepare external auditors to detect fraud (Bhatti, Larimo, Coudounaris, 2015; Plesoianu & Carstea, 2013; Sewchuk, 2005).

Fraud Detection Courses and Topics from Undergraduate Accounting Programs

The accounting literature on fraud detection topics and courses (fraud education) from the undergraduate accounting curriculum is relevant to the accounting profession (Alabdullah et al., 2014; Bejarano, 2013; Bressler, 2011; Daniels et al., 2013; French & Coppage, n.d; Gates et al., 2011; Imoniana et al., 2013; Kassem & Higson, 2012; Meier et al., 2010; Nix & Morgan, 2013; Plumlee et al., 2015; Soltani, 2014; Trompeter et al., 2014). The accounting profession will be well served if scholars can identify specific topics and courses that are minimally offered in the current undergraduate accounting curriculum in order to equip external auditors to detect corporate fraud (Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Meier et al., 2010; Nix & Morgan, 2013). Daniels et al.'s (2013) call for the incorporation of fraud detection topics and courses in the curriculum of undergraduate studies stems from the fact that not all students (auditors) will possibly proceed to graduate school, where fraud education is currently received. By implication, 47% of undergraduate students do not proceed to graduate schools where fraud examination and advanced auditing are currently received, but proceed to the job market (accounting firms) as accountants or auditors without fraud training (AICPA, 2013; Gates et al., 2011; Hendi, 2013). This position is corroborated by the AICPA (2013), which indicated that the undergraduate level constitutes 84% of accounting enrolments, 74% of graduating cohorts, 60% employment in CPA firms, and over 50% assignment in accounting and auditing.

Accounting educators have been motivated to include the following fraud detection topics into their accounting curriculum: ethics, elements of fraud, fraud risk factors (fraud triangle), and fraud detection and prevention (Daniels et al., 2013; Nix & Morgan, 2013). Support for the inclusion of these topics is based upon the findings of Darcy, Mollick, Rios, and Ybarra, (2011) that false statements tend to be rationalized by those whose self-interests are served and in most cases, business executives are involved in corporate fraud (Boyle, Wilkins, & Hermanson, 2012; Crawford & Weirich, 2012; Feng et al., 2013; Friedman, 2014; Kobelsky, Lin, & Jha, 2013; Peterson, 2012) and 41% of corporate executives will not voluntarily disclose incidents of corruption (Afford & Bebensee, 2010). Therefore, there is the need to train students in the identification of fraud (AICPA, 2013; Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; Meier et al., 2010; Nix & Morgan, 2013).

Accounting literature has indicated specific fraud detection topics and courses may be lacking in undergraduate accounting curriculum (Alabdullah et al., 2014; Alshboul & Alrabba, 2014; Bressler, 2011; Plumlee et al., 2015; Trompeter et al., 2014). One of the topics is related to the need for training of auditors in divergent and convergent (critical) thinking in order to lend support to the concept of professional skepticism (Kassem & Higson, 2012; Plumlee et al., 2015; Quadackers, Groot, & Wright, 2014). In the argument for inclusion of critical thinking into the existing accounting curriculum, Plumlee et al. (2015) found that training auditors in divergent thinking results in increases in both the quality and number of explanations developed and generated in an unusual situation. Another course or topic is that AP or diagnostic ability should be incorporated into the undergraduate accounting study program because audit managers

and partners tend to perform APs well as compared to lower-level auditors, since they possess greater technical knowledge from previous varied exposure (Alshboul & Alrabba, 2014; Plumlee et al., 2015; Reinholds, Bartkevics, Silvis, van Ruth, & Esslinger, 2015). The greater audit experience of the auditor may compensate, to a large degree, for their lack of fraud expertise to the audit program (Boritz et al., 2015). Furthermore, the training of external auditors in using cognitive abilities calls for both identification and development of effective instructions (Plumlee et al., 2015).

At the same time, there is a strong statistical association between forensic accounting methods and effectiveness of controls for the auditing profession to detect corruption cases (Alabdullah et al., 2014). A fraud detection topic should include accounting information system software, financial data, rules of evidence, communication skills, expert witnessing (Alabdullah et al., 2014; Bressler, 2011), and interviewing skills (McGimsey & Whelan, 2015; Trompeter et al., 2014). Additionally, Lang, Bashir, Campbell, and DeStefano (2014) suggested the inclusion of psychology, forensic concepts, computer forensics, the U.S. legal system, network forensics, law, fraud examination, and mobile device forensics into fraud education. Similarly, fraud training is important because most auditors have no experience with fraud during their careers, therefore, undergraduate accounting programs could address aspects of auditing and forensic accounting courses like agency theory, internal controls, ethics, professional standards, business valuation, revision and compilation requirements, and the indirect method of reconstructing income (Noviyanti & Winata, 2015; Rufus & Hahn, 2011).

The expectation of corporate stakeholders (investors and creditors) should serve as a starting point for the deployment of fraud education and training programs (Agarwal

& Medury, 2014; Hendi, 2013; Hussain et al., 2010; Saeidi, 2012) with additional topics of study involving factors regarding skill and knowledge (Alabdullah et al., 2014; Bressler, 2011; Hendi, 2013; Mitric et al., 2012). One such factor is prerequisite knowledge, which includes auditing, accounting, ethics, and business communication (Alabdullah et al., 2014; Barman & White, 2014; Bressler, 2011; Hendi, 2013; Mitric et al., 2012). Another factor is comprised of exposure material on fraud specific issues revolving around the definition of fraud, forensic accounting, role of auditors, fraud prevention, investigation, litigation advisory assignments, and remediation (Alabdullah et al., 2014; Daniels et al., 2013; Hendi, 2013; Mitric et al., 2012; Nix & Morgan, 2013). In addition, the following questions should be addressed in fraud education: how fraud is committed, who commits fraud, and why fraud is committed (Gottschalk, 2016; Hendi, 2013; Mitric et al., 2012). A third factor regarding skill and knowledge would be advanced program content of fraud education (fraud topics and courses), with the inclusion of criminology, professional environment, fraud schemes, fraud in digital environment, legal and regulatory framework, and professional perspectives (Hendi, 2013; Mitric et al., 2012).

In other related studies, the following courses were identified: investigation on conceptual issues, investigation of fraud, mitigation of internal controls risk procedures, arbitration and judicial disputes, expert reporting, due diligence (Bressler, 2011; Imoniana et al., 2013), and fraud measurement approaches (National Fraud Authority, 2013) as being vital to the undergraduate educational process. Daniels et al.'s (2013) study was validated by Nix and Morgan (2013), who postulated that accounting educators should be motivated to add forensic courses and fraud topics into accounting curriculum.

Similarly, auditors should utilize numerous strategies including: risk-based auditing, fraud detection models, intentional strategy, reconciliations, analytical reviews, interviews; and data mining and analytics tools such as Enterprise miner and Access to detect and prevent fraud (Appiah, 2015; West & Bhattacharya, 2016). Gates et al. (2011) proffered the recommendation that on the basis of teaching experience there should be a requirement for all business majors to take courses in principles of accounting (two levels) and upper level accounting courses, covering intermediate accounting, accounting information systems auditing, and governmental and not-for-profit accounting. Additionally, non-accounting courses comprised of the principles of finance, business law, and business communication should be included (Huber & DiGabriele, 2014). Lastly, graduate accounting courses on an introduction to fraud examinations and advanced auditing should be based on a comprehensive video which has interviews, lessons by experienced instructors, and expert narration with a focus on criminology, ethics, fraud investigation, financial transactions, and legal elements of fraud (Gates et al., 2011; Huber & DiGabriele, 2014).

In a research study conducted by Daniels et al. (2013), a survey of 500 accounting practitioners and educators were used to shed light on their perspectives on the importance of fraud and forensic topics in accounting curriculum, using 21 chosen topics to help students in the detection of corporate fraud. These topics were designed to guide accounting educators and practitioners in assisting accounting students in the detection of corporate fraud and included, but were not limited to the following: rules of evidence, communication skills, accounting information system, financial data, expert witnessing,

elements of fraud, fraud risk factors (fraud triangle), deterrence and prevention, and ethical issues (Daniels et al., 2013).

No qualitative studies were found that indicated illumination into auditors' perspectives regarding the lack of fraud education from undergraduate accounting programs in order to detect corporate fraud (Bressler, 2011; Daniels et al., 2013; Nix & Morgan, 2013). By way of illustration, Andre et al.'s (2014) directed future researchers to examine the outcome of incorporating modules of fraud detection in business schools' curriculum to provide effective education. Accordingly, Davis et al. (2013) identified the following traits and characteristics: fundamental forensic knowledge, involving planning and preparation, law, courts, and dispute resolution; professional responsibilities and practice management; discovery, reporting, and expert testimony; information gathering, and presentation. Additionally, essential traits and characteristics such as analytical, ethical, detailed-oriented, inquisitiveness, and skepticism, as well as core skills of critical thinking, simplifying information, oral communication, auditing skills, and investigative abilities were recommended. Finally, enhanced skills revolving around testifying, audit evidence, fraud detection, asset tracing, knowledge of professional standards, electronic discovery, interview skills, and general knowledge of civil procedure and rules of evidence, and analysis and interpretation of financial statements and information should be included (Davis et al., 2013). However, it is not clear if the traits and characteristics proposed by Davis et al. were to be taken to mean the same as the topics and courses recommended by Daniels et al. (2013) and Nix and Morgan (2013).

In the like manner, the tradeoff between fraud detection errors are sophisticated and also differ in context; therefore, future researchers may choose to explore the

implications of concentrating on establishing correlation between issues, experiences, and ideas (Dellaportas & Hassell, 2013; Dilla & Raschke, 2015). Specifically, the fraud detection topics and courses of critical thinking and APs (Alshboul & Alrabba, 2014; Plumlee et al., 2015), accounting information system, evidence, expert witnessing, arbitration, communication studies, investigation (Bressler, 2011), interview skills (Trompeter et al., 2014), elements of fraud, fraud risk factors (fraud triangle), fraud deterrence and prevention, and ethics (Alabdullah et al., 2014; Adelean, 2015; Alleyne & Elson, 2013; Daniels et al., 2013; DeSimone & Buzza, 2013; Fiore, 2012; Gordon, 2015; Hendi, 2013; Hussain et al., 2010; Imoniana et al., 2013; Koumbiadis & Pandit, 2014; Mitric et al., 2013; Nix & Morgan, 2013;Yallapragada et al., 2012) have been identified as being important. Similarly, others sources included auditing, accounting, ethics, business communication, definition of fraud, forensic accounting, the role of auditors, fraud prevention, investigation, litigation advisory engagement, remediation, criminology, professional environment, fraud schemes, fraud in digital environment, ethics and professional perspectives, and legal and regulatory frameworks (Bressler, 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013) as being foundational topics of study for business students. However, the difference between fraud detection topics and forensic accounting courses (fraud education) was not clear because there is a lack of agreement among scholars on which specific item should be a topic within a course or the actual course (Daniels et al, 2013; Nix & Morgan, 2013).

The scholarly work of Gates et al. (2011) went beyond curriculum to address issues of instruction, measurable goals, exposure to ACFE video material, and assessments as the study involved investigation of auditors' views on integration of fraud

topics into the entire business curriculum. Therefore, the purpose of the study of Gates et al. (2011) was to create awareness of fraud among all business majors and not necessarily to equip accounting students (external auditors) with fraud education to detect corporate fraud. Nevertheless, there have been calls by Daniels et al. (2013), Meier et al. (2013), Nix and Morgan (2013), and Soltani (2014) for further research to explore the practitioners' perspectives on the fraud detection topics and courses that are absent from the undergraduate accounting programs designed to prepare students to detect corporate fraud. As a result, Armitage and Poyzer (2010) suggested that auditing professors should tap into accounting practitioners' wealth of knowledge in order to assess the focus of their auditing undergraduate classes. However, most of the scholarship focus on fraud education has been without guidance on the design of the courses and how the courses are to be deployed (Imoniana et al., 2013).

The following scholars have proposed the following fraud education for consideration: ethics and professional judgment (Alzsila & Ikaunieks, 2014; Alabdullah et al., 2014; Daniels et al., 2013; Davis et al., 2013; Gates et al., 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013) and business communication skills (Bailey, 2010; Bressler, 2011; Colon, Badua, & Torrers, 2016; Daniels et al., 2013; Davis et al., 2013; Gates et al., 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013). Prior authors posited that the teaching of ethics in universities will improve the business community in general, and the accounting profession in particular (Armitage & Poyzer, 2010; Beets, 2011; Chaffey et al., 2011; Warinda, 2013). As a result, the universities have been urged to offer an elective or required ethics in accounting courses (Barman & White, 2014; Klimek & Wenell, 2011; Vladu & Cuzdriorean, 2013) because students

who take courses in ethics tend to have higher ethical reasoning after graduation (Miller & Becker, 2011). As a consequence, honest behavior can be built into an organization (Carcello, Hermanson, & Ye, 2011; Mastilak, Matuszewski, Miller, & Woods, 2011) because ethical awareness is associated with higher education (Koumbiadis & Pandit, 2014). However, the inclusion of APs (Alshboul & Alrabba, 2014; Plumlee et al., 2015), auditing, legal framework, forensic accounting, and accounting is debatable (Alabdullah et al., 2014; Gates et al., 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013).

Auditing and accounting are courses that are already being taught in undergraduate accounting programs in the universities across the world (Bressler, 2011; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013; Uyar & Gungormus, 2011), and AP is also a topic treated in undergraduate auditing course as a substantive auditing procedure to test audit assertions (Alshboul & Alrabba, 2014; Plumlee et al., 2015). In a related study, Armitage and Poyzer (2010) conducted a survey on practitioners and academics as to their perspectives regarding the importance of 41 topics considered by current auditing textbooks, and found that audit risk, understanding internal controls, evidence, financial statement assertions, and fraud awareness were the most important topics to professors. On the other hand, the following topics were important to practitioners: audit risk, ethics, documentation, understanding internal controls, and APs (Alshboul & Alrabba, 2014; Armitage & Poyzer, 2010; Plumlee et al., 2015). Incorporation of forensic accounting (Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013) in the list is also confusing because the proposed topics and courses are to help develop forensic accountants from the accounting students (Imoniana et al., 2013).

Finally, the suggestion for the inclusion of criminology (Gates et al., 2011; Hendi, 2013; Huber & DiGabriele, 2014; Hussain et al., 2010; Mitric et al., 2013) and critical thinking (Alshboul & Alrabba, 2014; Brailey, 2010; Davis et al., 2013; Plumlee et al., 2015) needs further scrutiny. This stems from the fact that while criminology is taught in law programs, critical thinking is also taught in psychology programs in universities. The literature is not emphatic on whether criminology and critical thinking should be integrated into the accounting curriculum or should be taken as electives by accounting students (Alshboul & Alrabba, 2014; Davis et al., 2013; Hendi, 2013; Hussain et al., 2010; Mitric et al., 2013; Plumlee et al., 2015). While professors place emphasis on topics that border on theory upon which auditing practice is built, practitioners stress topics that cover the actual practice of auditing (Armitage & Poyzer, 2010), establishing a significant difference between the perspectives of auditors (external) and academics on the importance placed on auditing topics.

According to Gates et al. (2011), without the integrated approach, business students who do not take a course in fraud may never be exposed to possible fraudulent activities that may occur in business. Therefore, Davis et al. (2013) argued that the common model currently is for business schools to provide a course or two in fraud accounting or integrate fraud education into the existing curriculum, and leave the rest to on-the-job experience. In response to the recent call by scholars (Alleyne & Amaria, 2013; Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Meier, et al., 2010; Ramadhan, 2015) to explore external auditors' perspectives this study will involve the intent to explore all the fraud detection

topics and courses from undergraduate programs that prepared the auditors to detect corporate fraud.

The outcome of the study will likely provide a vivid explanation on whose responsibility it would be to provide fraud education whether graduate schools, undergraduate schools, specialized bodies, on-the-job training by employer, or public accounting firms to provoke action based on the perceptions of external auditors (Baxter & Jack, 2008; Chaffey et al., 2011; Davis et al., 2013; Yin, 2011). Similarly, an alternate view has indicated the use of a specialized certification program to prepare external auditors to detect corporate fraud, but this option has been found to be costly without commensurate benefits (Boritz et al., 2015). This study will be an update of the literature on external auditors' perspectives as the required follow-up to be shared with accounting educators so as to possibly strengthen corporate fraud detection based on their field experiences.

Summary

Academic researchers (Alleyne & Amaria, 2013; Andre et al., 2014; French & Coppage, n.d; Daniels et al., 2013; Meier et al., 2010; Nix & Morgan, 2013) have published studies on the low corporate fraud detection rate by external auditors. This is against the backdrop of the lack of fraud education by external auditors such that corporate fraud has not been detected (Alleyne & Elson, 2013; Beasley et al., 2010; Boyles et al., 2012; Crawford &Weirich, 2011; Scholz, n.d). Therefore, external auditors need to be adequately trained to identify corporate fraud, and as a consequence, business schools can assist by having in place adequate efforts to prepare students for fraud detection (Alleyne & Elson, 2013).

In brief, accounting scholars (Alabdullah et al., 2014; Bejarano, 2013; Bressler, 2011; Daniels et al., 2013; Apostolou et al., 2013, 2010; French & Coppage, n.d; Imoniana et al., 2013; Kassem & Higson, 2012; Meier et al., 2010; Nix & Morgan, 2013; Plumlee et al., 2015; Soltani, 2014; Trompeter et al., 2014) have provided literature on the lack of fraud education in undergraduate accounting programs; however, to date no qualitative studies were uncovered that provided insight into the absence of fraud education from undergraduate studies to prepare external auditors to detect corporate fraud (Bejarano, 2013; Boyles et al., 2012; Hermanson et al., 2012; Ogoun & Obara, 2013; Yallapragada et al., 2012). Specifically, the external auditors' perspectives on the fraud detection topics and courses from their undergraduate accounting programs that prepared them to detect corporate fraud have not been addressed in the literature (Alleyne & Amaria, 2013; Daniels et al., 2013; Higgins, 2012; French & Coppage, n.d; Hsu et al., 2013; Meier et al., 2010; Nix & Morgan, 2013).

The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. The undergraduate accounting programs should provide the foundation for further studies on fraud education before other options, such as on-the-job training, graduate school training, and profession specialization will be adapted (Beets, 2011; Brody et al., 2012; Davis et al., 2013). Accounting scholars (Alleyne & Amaria, 2013; Andre et al., 2014; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Meier, et al., 2010; Ramadhan, 2015) have called for practitioners' input in the design of fraud education at

the undergraduate level with a focus on all courses and topics perceived to be important because practitioners' views can improve the relevance of programs. Therefore, this proposed study was an expansion of the literature on fraud education that possibly provided practical insights on undergraduate accounting programs within the context of external auditors' perspectives to inform accounting stakeholders, such as practitioners, educators, regulators, and auditing firms, in the performance of the external auditors' work (Alshboul & Alrabba, 2014; Bressler, 2011; Daniels et al., 2013; Hendi, 2013; Hussain et al., 2010; Meier et al., 2013; Nix & Morgan, 2013; Plumlee et al., 2015; Soltani, 2014; West & Bhattacharya, 2016).

Chapter 3: Research Method

Undergraduate accounting students do not possess the requisite competencies, such as communication, leadership, technology adeptness, and strategic thinking, and also lack the fraud education covering ethics, professional judgment, internal controls, and critical thinking needed to detect corporate fraud after graduation (Agarwal & Medury, 2014; Alabdullah et al., 2014; Davis et al., 2013; Gates et al., 2011; Kassem & Higson, 2012; Yallapragada et al, 2012). The problem to be addressed in the study was that external auditors have detected less than 5% of fraud cases (Agarwal & Medury, 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Rahman & Anwar, 2014; Reidy & Theobald, 2011) because they lack fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Meier et al., 2010; Plumlee et al., 2015). Therefore, the purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. The external auditors' perspectives on fraud education were explored because prior literature (Apostolou et al., 2013; Apostolou et al., 2015; Ramadhan, 2015) showed there were no known qualitative studies on fraud detection courses and forensic accounting topics from undergraduate accounting programs that helped to prepare them to detect corporate fraud. The reviewed scholarly literature, the nature of the topic of interest, and the research questions have provided context for the research design (Yin, 2011). The research questions for the current study were as follows:

Q1. How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs that prepared them to detect corporate fraud?

Q2. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?

Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?

Chapter 3 covers the chosen research method and design, including justification for this choice; discussion of the population and sample; the materials and instrument used; data collection, processing, and analysis; and the assumptions, limitations, delimitations, and ethical assertions. The chapter then closed with a summary.

Research Method and Design

A qualitative study was chosen to gain insight into external auditors' perspectives on their education regarding fraud detection. A qualitative research method was used to appropriately address the study purpose to shed light on the external auditors' perspectives regarding possible lack of fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Meier et al., 2010; Plumlee et al., 2015). The qualitative research approach allowed for the exploration of in-depth description of external auditors' perspectives on fraud education (Yin, 2011). A qualitative research method was used to describe external auditors and explain how fraud education can lead to improvements in fields of accounting because qualitative methodology is suitable for

accounting research (Jacob & Furgerson, 2012; Massingham, Massingham, & Diment, 2012). The qualitative research approach was used for the study because the method tended to be more flexible than a quantitative research methodology (Yin, 2011).

Specifically, a quantitative research method was dismissed because the intent of this study was not to investigate the predictive abilities and interaction of independent variables with the dependent variable (Yin, 2009, 2011). This proposed study did not include use of hypotheses, experiments, and statistical measures to establish correlation among economic variables (Denzin & Lincoln, 2011). Mixed methods were also excluded because the research methodology was not a combination of both qualitative and quantitative research approaches for the exploration of the same phenomenon in order to answer the research questions (Yin, 2011). The intention of this research was not to proffer a theory but to explore a deeper understanding of the perspectives of external auditors as study participants (Yin, 2011).

This qualitative study utilized an exploratory, holistic, multiple case study design (Yin, 2014). The research design provided this study with direction and systematic conduit through which the logical sequence of the empirical data was linked to the research questions and study conclusions (Yin, 2014). A phenomenological approach was dismissed for the project because the method tends to concentrate on lived experiences of participants (Patton, 2002), but this research was concentrated on the perspectives of participants. Likewise, grounded theory was dismissed as an appropriate research approach because the focus was not on using research data to develop substantive theory, whereas the purpose of this study was to explore participants' perspectives and not to generate a theory (Yin, 2011). Ethnography was also excluded

because the approach is used to concentrate on the cultural environment and the investigation of the network of social groupings (Patton, 2002; Yin, 2011). Consequently, an ethnographic approach did not align with this study's purpose and research questions.

A case study approach was deemed the most appropriate because the intended focus of this study was on the external auditor as a unit of analysis (Yin, 2011). The definition of cases encompassed two groups of participants interviewed, who were experienced external auditors belonging to the ACFE, the ICPAS, and the IAAI (Yin, 2009). While one "case" was composed of experienced external auditors in the auditing field without CPA designation, the other "case" was involved with external auditors who hold CPA certification. The purposeful selection of two cases allowed for contrast and comparison on the issue.

The criteria for the selection of a case study included the use of "how" research questions (Patton, 2002; Yin, 2011, 2014). The "how" research questions used were as follows: first, how undergraduate education on fraud detection courses and topics has prepared the participants to detect corporate fraud. Second, how competencies should be incorporated in the undergraduate programs to better prepare students to detect corporate fraud in the field. Finally, how fraud detection and forensic accounting strategies that external auditors use in the field can help in preparation to detect corporate fraud. Additionally, a case study approach was the utmost choice because the researcher was allowed to exercise control over the line of questioning (Yin, 2011, 2014). Also, a case study approach tended to be utilized to focus on contemporary events (Cooper & Schinder, 2003; Yin, 2011, 2014), such as was accomplished with this research on fraud

education from undergraduate accounting programs, a contemporary event of low corporate fraud detection by external auditors. A case study method allowed the complexities in fraud education to be explored.

A case study approach provided a grounded assessment of tacit knowledge within the context of judgments regarding transferability to ensure that document reviews, and in-person face-to-face interviews with a semi-structured open-ended questions were understood for internal consistency (Lincoln & Guba, 1985; Patton, 2002). Data was collected through interviewing and document reviews on corporate fraud detection (Lincoln & Guba, 1985; Shank, 2006; Yin, 2011). Additionally, a case study approach was used to make sense of the meaning people bring to a natural setting (Lincoln & Guba, 1985; Yin, 2011), because the researcher was allowed to gather data from the field where the external auditors experienced minimal fraud detection due to possible lack of fraud education (Patton, 2002; Yin, 2011).

This research study shed light on the extent of the problem of fraud education from the perspectives of the participants, using exploratory design because little research endeavor existed on the topical area (Shank, 2006; Yin, 2011). An exploratory approach to case study research was conducted for this study because external auditors' perspectives were yet to be well-articulated within a contextual situation (Yin, 2011). Due to limited scholarship on fraud education, the outcome of this study may possibly inform direction for future accounting research on the topic (Yin, 2011). As a result, an exploratory design was combined with a multiple-case study approach to shed light on fraud education to possibly provoke the accounting profession to conduct further detailed studies in the future.

This multiple-case study research has the following design steps or phases: defined the case or unit of analysis and, established the case study as a multiple case study (Yin, 2009, 2014). In the first phase, the cases for this study was defined as experienced external auditors belonging to the ACFE, the ICPAS, and the IAAI (Yin, 2009). Past case studies have been conducted about programs, an entity, or an event, the unit of analysis for this study was represented by a small group of external auditors (Yin, 2011). The selected cases of experienced auditors with and without CPA certification likely presented different perspectives about fraud education in addressing the research questions. Furthermore, individuals, entities or groups, and the interviewee constituted the unit of analysis (see also Yin, 2011). Additionally, the unit of analysis included raw interview data such as interview transcripts obtained from the external auditors in the course of fieldwork, as well as document review from case study professional publications (Denzin & Lincoln, 2011; Yin, 2011). As a result, a multiple-case study approach was used to focus on the perspectives of the participants using a selected group of 12 external auditors within the context of real-life phenomenon (Patton, 2002; Yin, 2011).

In the second phase, this study was established as a multiple-case study because a multiple-case study approach possibly yielded better outcomes from the utilization of two groups of external auditors (Yin, 2009, 2011, 2014). The multiple-case study method was the most suitable approach for explaining the study concern because the researcher was permitted to examine the data on the external auditors' perspectives on fraud education to ensure replication across cases (Yin, 2009, 2011). While qualitative research studies are not necessarily generalizable, replication logic in the multiple cases

was used to identify the domain for the study findings to permit external validity in the research design stage (Yin, 2014). Replication logic was used to guide the selection of each case such that contrasting and similar outcomes could be predicted (Yin, 2014).

A multiple-case study permitted the variations between and within cases to be identified to permit findings across cases to be replicated (Yin, 2011, 2014). A single case study, unlike multiple-case study can be used for testing properly formulated theories but the intent of this study was not to subject theories to testing (Patton, 2002). As a result, a multiple-case study method was appropriate because a multiple case study was not intended to be longitudinal in nature and the approach was preferred on the basis of evidence of multiple cases of external auditors (participants) who provided a more robust and compelling findings over a single case design (Yin, 2014). As a result, a multiple-case study likely produced strong research outcomes (effects) due to the inclusion of two or more cases than a single case study (Yin, 2009, 2011, 2014).

Fraud education was explored holistically as a contemporary issue using a qualitative exploratory multiple-case study methodological design focus to address the research questions and the study purpose (Yin, 2011). The researcher's choice of a holistic multiple-case study approach for this study was to permit fraud education from the perspectives of multiple participants to be studied as a whole (holistically) instead of the exploration of the sum of the respective parts (Yin, 2011, 2014). For this reason, no logical subunits (embedded) of external auditors' perspectives on fraud education were specifically identified, making the holistic design an advantageous research design choice for the research (Yin, 2014). Consequently, an embedded case study was rejected as an alternative to a holistic case study because the embedded case study consists of more

units or objects of analyses (Stake, 1995; Yin, 2011, 2014). Additionally, the embedded case study also neglected the larger aspects of the study cases by shifting the focus to subunits (Stake, 1995; Yin, 2011, 2014).

Population

The U.S. Bureau of Labor Statistics (2015) showed that there were 1,187,310 employed auditors and accountants as of May 2014. To broaden the base for data collection, three professional accounting bodies were used to recruit the members for the study, including the following: the IAAI with 442 members (IAAI, 2016), Illinois CPA Society with 24,000 members (ICPAS, 2016), and ACFE with 75,000 members (ACFE, 2016). The total members of the professional accounting bodies (the ACFE, the ICPAS, and IAAI) were 99,442 as of May 23, 2016. For example, the total membership of 442 of the IAAI as of May 23, 2016 was composed of one-third accredited members who hold CPA certification and two-thirds without CPA certification. The membership information of these professional bodies was readily accessible from their websites. As of 2014, the state of Illinois had 47,810 employed auditors and accountants (Bureau of Labor Statistics, 2015). By way of illustration, the number of auditors and accountants within Chicago-Joliet-Naperville metropolitan division in Northern Illinois alone stood at 34,750 (Bureau of Labor Statistics, 2015). The external auditors were deliberately chosen from the public accounting sector because 60% of undergraduate accounting graduates were engaged by accounting firms, while over 50% of those employed were also assigned accounting and auditing responsibilities (AICPA, 2013). Selection of three professional accounting bodies (the ACFE, the ICPAS, and the IAAI) was to provide a homogeneous sample from diverse groups of external auditors.

Sample

A purposive snowball criterion sampling was utilized for this study (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011). First, a purposive sample was utilized to choose external auditors to permit the interpretation of their perspectives for the benefit of the study (Patton, 2002; Yin, 2011). According to Lincoln and Guba (1985), perspectives are incomplete, partial, and transcend the accumulation of facts because each perspective tends to produce limited part of the whole experience. A purposive sample of 12 external auditors, made up of 9 (75%) experienced external auditors with CPA designation and 3 (25%) experienced external auditors without CPA certification, was recruited to meet the objectives of the research to address the research questions or until saturation was reached (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011). In this study, thoughtfulness was given to the identification of cases to meet the purpose of study (Lincoln & Guba, 1985). The details of the members of the professional bodies (the IAAI, the ACFE, and the ICPAS), such as CPA certification, practitioner's name, address, email address, and telephone numbers were public information and readily accessed from their website. The researcher used the email addresses provided by the listing of the 3 professional accounting bodies (the IAAI, the ACFE, and the ICPAS) to recruit external auditors. Second, the external auditors (participants) who met the specific inclusive criteria of a bachelor's degree who also have at least 1 year of experience in the auditing field connected their practical field experience to their undergraduate accounting programs. The recruited external auditors were those who practiced or resided in Northern Illinois. Northern Illinois was chosen for participants' convenience to allow for availability and flexibility in the conduct of face-to-face interviews from the focused sample.

While there were no specific rules that defined sample size in qualitative research (Patton, 2002), but research studies involving exploration of perspectives among homogeneous groups involved the interviewing of 12 participants for data saturation to occur (Guest, Bunce, Johnson, 2005). However, Dworkin (2012) posited that in qualitative studies a minimum of 5 is acceptable; and this view was validated by Yin (2009, 2011), who asserted that a sample of 5 or more participants was enough for replication. Mason (2010) estimated between 15 and 25 as the acceptable range for a sample size and similarly, Marshall, Cardon, Poddar, and Fontenot (2013) suggested that qualitative case studies should consider 15 to 30. A sample of 25 to 50 is also considered large enough (Yin, 2011) even though there are no formulae for sample size in a qualitative study such as the exploratory multiple-case study approach.

Finally, participants for this study were specifically sampled from the list of approximately 99,442 potential participants. Initially, three sets of 30 names on a randomized list (total of 90) on the list of accountants from the IAAI in the Northern Illinois were contacted via email invitation (see Appendix B). The members of the IAAI professional accounting body were difficult and hard-to-find because the invitation letters sent to them returned no responses. Furthermore, it was difficult to identify external auditors from one professional accounting body come forward to participate in the study bordering on fraud education from their undergraduate accounting studies. An NCU-IRB modification approval was obtained to utilize snowball sampling as a purposeful and direct approach to conduct a comprehensive study that took advantage of the social networks that existed between members of the accountancy fraternity. The first 12 qualified respondents were accepted as participants and grouped into the two cases. If

there were less than 12 qualified responders or the number of any of the groups fell short of the designed number, additional names were contacted about participating. This process was used until a minimum of 12 qualified participants was reached. The process was repeated until saturation was reached. Saturation occurred at the point of data collection where no new or relevant data provided new insight to the research undertaking (Guest et al., 2005; Patton, 2002; Yin, 2011).

Materials/Instruments

The instrument utilized was open-ended interview questions. The interview questions covered the following content areas: first, detection of corporate fraud, fraud education from undergraduate accounting programs, and fraud education received on-the-job. Second, strategies for incorporating fraud education into undergraduate accounting programs, and expected competencies of accounting students for undergraduate accounting programs. Finally, strategies for mitigating the corporate fraud detection in audit practice, overall assessment of fraud education, and participants' demography.

As used by accounting researchers (Clune, Hermanson, Tompkins, & Ye, 2014; Hermanson, Tompkins, Veliyath, & Ye, 2012), the existing literature on fraud education was consulted in drafting the interview questions. The interview protocol was prepared to provide not only a set of open-ended questions to be used by the researcher, but also included a procedural guide to direct the interview process (Jacob & Furgerson, 2012). The views of experts in the auditing field and qualitative research were solicited to test for understandability of the questions (Clune et al., 2014; Hermanson et al., 2012; Patton, 2002). The interview questions were field tested by three experts; comprised of one accounting practitioner and one accounting academic, who are personally known to the

researcher; and my dissertation chair as a qualitative researcher. The two accounting experts maintain membership in the accounting professional bodies and were actively involved in the profession and my dissertation chair was actively involved in qualitative research. However, the two accounting experts were not included as participants in the actual study.

The feedback from the recruited experts was incorporated into the study to generate an enhanced interview guide. Additionally, the field test was used to ensure important questions were included in the interview guide (Denzin & Lincoln, 2011). Expert feedback was crucial in the identification of probable weaknesses associated with the interview questions, such as: limitations, appropriate terminology, and other potential weaknesses present in the interview guide (Denzin & Lincoln, 2011; Patton, 2002). Field testing ensured dependability and credibility of the interview questions because the researcher was helped in the development of clear and relevant questions to be included in the interviews to enable the researcher prepare for the interview process (Denzin & Lincoln, 2011; Yin, 2011).

Data Collection, Processing, and Analysis

Qualitative data was collected from in-person interviews after completion of all protocols contained in the study based on IRB approval. The issues considered in data collection through interviews included the following: decision regarding who should be interviewed, preparing for the interview, making initial contacts, and the conduct of the interview (Lincoln & Guba, 1985). Three steps were utilized, as follows: step (a) after IRB approval, an internet search was done using Google to find IAAI website. The membership list was accessed from the Northern Illinois. Ninety members were targeted

using 3 sets of randomized list and invitation letters (see Appendix A) were sent via the researcher's NCU email address to the accounting practitioners in the Northern Illinois area. The members of the IAAI professional accounting body were difficult and hard-to-find because the invitation letters sent to them returned no responses. Furthermore, it was difficult to identify external auditors from one professional accounting body come forward to participate in the study bordering on fraud education from their undergraduate accounting studies.

An NCU-IRB modification approval was obtained: (a) to utilize snowball sampling as a purposeful and direct approach to conduct a comprehensive study that took advantage of the social networks that existed between members of the accountancy profession. (b) The one professional accounting body was expanded to 3, involving the ACFE, the IAAI, and the ICPAS. Snowball sampling was aimed at choosing new data collection units as an offshoot of existing external auditors to gather relevant and insightful data for the study because the most critical value of a qualitative study was the discovery of new insights during data collection (Yin, 2011, p.104). The sampling design was modified from a purposive criterion random sampling to a combination of purposive snowball sampling and criterion sampling techniques because of the difficulty encountered in recruiting the intended sample size using only IAAI. Purposive sampling was done with the goal of the study in mind. The specific professional accounting bodies (the ACFE, the IAAI, and the ICPAS) were identified to permit the opinions of this predetermined population and their recommended colleagues to be obtained (Patton, 2002; Yin, 2011).

According to Yin (2011), qualitative studies are purposive; as a result, provided justification for the choice of a purposive snowball sample to identify prospective participants due to the relevance and plentifulness of data that were collected for the study. Participants were chosen for the additional and relevant information they brought to the study and not just the convenience of their availability and willingness to spare some time (Yin, 2011, p.89). Criterion sampling permitted the selection of all cases of external auditors that met set criteria in order to provide rich and detailed data that was relevant to fraud education (Patton, 2002, p.238). The specific inclusive criteria included the following: (a) holder of a bachelor's degree in accounting, (b) have at least 1 year of practical field audit experience, and (c) practice or reside in Northern Illinois. There was the presumption of the challenge of getting a sample that appeared to be representative of the population and not just the support about the research question (Yin, 2011).

Snowball sampling, referred to as: chain sampling, or chain-referral sampling, or referral sampling (Patton, 2002; Yin, 2011) was the preferred choice because the technique was best for exploratory purposes. The snowball sampling technique was deployed as follows: first, 120 members of the three professional accounting bodies (IAAI, ICPAS, and ACFE) who met the inclusion criteria for the study were identified. The websites of the professional accounting bodies were utilized to recruit the prospective participants for the study. External auditors learnt of who could be interviewed (Yin, 2011) and the selected participants also recommended their colleagues who also met the inclusive criteria and were willing to participate in the study. Prospective participants were asked to recommend other potential participants for the study (Yin, 2011) until the sample size of 12 was obtained.

The prospective participants provided their colleagues with study information to allow for the review of their background to establish whether they met the inclusion criteria. The researcher sent more information about the study covering informed consent issues and copies of the interview questions to the potential participants and requested them to contact him to schedule an appointment for face-to-face interview. A 3-page interview protocol was designed to guide the conduct of the semi-structured face-to-face interview to allow for participants' insights regarding fraud education (Hermanson et al., 2012; Jacob & Furgerson, 2012; Patton, 2002; Yin, 2011). The structure of the interview guide was to break down the research topic into smaller parts such that participants' responses were not difficult to capture (Clune et al., 2014; Jacob & Furgerson, 2012; Yin, 2009). Interview appointments were scheduled to accommodate participants' availability in reserved rooms at public libraries near the participants' residence or offices. Semi-structured open-ended questions with face-to-face interviews format was utilized for this qualitative study so that differences, similarities, and uniqueness within and among cases could be identified through triangulation (Jacob & Furgerson, 2012; Lincoln & Guba, 1985; Yin, 2011).

The opportunity was afforded the participants to familiarize themselves with the interview protocols prior to the interviews. The interview responses were recorded using digital audio recorders based on informed consent forms and transcribed verbatim within 2 days because the earlier the transcription was done the better (Glaser & Strauss, 1991; Jacob & Furgerson, 2012). To this end, all transcripts from the interviews were reviewed several times in order to ensure completeness and accuracy of data collection (Jacob & Furgerson, 2012; Patton, 2002; Shank, 2006). Interview notes were also taken by the

researcher, saved as Microsoft word document and reviewed with the digital audio tape recording. The interview notes were compared to the digital-audio recording in order to resolve any differences (Clune et al., 2014; Hermanson et al., 2012; Jacob & Furgerson, 2012) because the use of digital-audio recorder for research interviews does not remove the need for notes taking (Patton, 2002).

The contemplation of verbatim notes taking focused on concentrated and strategic data collection because the verbatim principle of notes taking and the richness of writing during the face-to-face interviews posed overwhelming demands on the researcher's ability to perform parallel roles such as listening, taking notes, watching, and assimilating real-life events simultaneously. Nevertheless, sufficient notes were taken using the researchers transcribing language that allowed for minimally trusting on memory (Yin, 2011). The purpose of notes taking included the following: provided backup should there be malfunction of digital-audio recorder or when a tape is mistakenly erased during transcription, facilitated the identification of key quotations of participants during data analysis, ensured directions for subsequent interviews from the unfolding insights, and assisted in the formulation of new and follow-up questions during interviews (Patton, 2002). Additionally, note-taking permitted interviews to be paced because failure to take down notes may have suggested to the participant that no issue of importance had been provided for the study (Patton, 2002). Consequently, notes taking influenced the interview process (Patton, 2002). The interview notes were reviewed several times to ensure that data was devoid of uncertainty and ambiguity because the responses of the participants were read back to them for clarification and validation (Patton, 2002).

The notes taking conventions employed for this study, included the following: first, the capturing of the full and actual quotations made by the interviewee, and also using shortcuts to achieve precision and accuracy (Patton, 2002; Yin, 2011). Second, brackets were used to distinguish the investigator's own ideas from those of the participants, as well as the use of abbreviations and acronyms for capturing data (Patton, 2002; Yin, 2011). Third, no attempt was made to complete all sentences when the researcher fell behind but rather new sentences were started but after every interview, specific time was allocated to read responses back to the participants to make quick fixes and also validate the data (Patton, 2002; Yin, 2011). Finally, interview questions provided context for interpreting responses because answers were related back to questions, and every attempt was made to write fast to capture as much of participants' narratives (Patton, 2002; Yin, 2011).

Professional publications sources from IIA, AICPA, and ACFE were reviewed as secondary data for evidence to validate the findings of the study but no nonverbal data such as observation was collected from participants in the study (Yin, 2011). The procedure for gathering secondary data was 3 steps, as follows: first, a library search was conducted in research databases such as: Ebrary, SpringgerLink, ProQuest, EBSCoHost, Annual Reviews, SAGE, ScienceDirect, Refworks, Gale Academic, OneFile, Ulrichsweb, and WileyOnline library. A link to the databases was opened and parameters regarding the fraud education were defined. Second, the search field was condensed if the following keywords or phrases returned results: fraud education, ethics education, accounting students' competencies, fraud detection topics and courses, fraud triangle and training, forensic accounting examination and science, corporate fraud

detection and prevention, external auditors, experiential learning model, and accounting education modification. Finally, if the research did not return results, then a google search was conducted directly to the websites of the professional accounting associations such of the IIA, the ACFE, and the AICPA. Secondary data was collected for further analysis.

A multiple-case study database was developed from the merged master data file for data collection procedures to yield the same results with repetition (Clune et al., 2014; Hermanson et al., 2012; Yin, 2014). Patton (2002) asserted that the researcher should develop the ability to provide a holistic approach when it comes to the presentation of sample participants' perspectives. The researcher was the main instrument for collecting data and interpretation in this study (Lincoln & Guba, 1985; Shank, 2006; Yin, 2011). The researcher had the ultimate responsibility of interpreting the results of the study (Denzin & Lincoln, 2011; Lincoln & Guba, 1985; Patton, 2002).

Data processing involved the transcription from the interviews saved in Microsoft word documents for storage purposes. All interviews transcription was analyzed based on the common elements of the participants' responses using keywords that emerged from different questions (Hermanson et al., 2012). Pseudonyms were used to protect the identities of the participants; as a result, the names of the external auditors were not displayed on the transcription notes. Coding was done after the transcription of the interview notes. According the QSR International website, NVivo 11 is specially-designed software for processing data gathered from interviews and observation in qualitative studies (Retrieved from http://www.qsrinternational.com /products/ vivo/ features-and-benefits. aspx -accessed on 01/17/2016). The NVivo software (program)

was used as a tool for the analysis of the transcribed notes, coding, and the interpretation of the data collected from the interviews. Professional publications from the ACFE, the AICPA, and the IIA and were reviewed and analyzed, through triangulation for corroborative evidence to confirm or disconfirm the results of this study (Yin, 2011).

Yin's (2011) five-phased approach was used to analyze the data. The five phases of data analysis for this study included the following steps: compiling, disassembling, reassembling or arraying, interpreting, and concluding. Step one was compiling; the research analysis started by sorting the interview transcripts and notes (field notes) in an orderly manner into a database, thereby gaining familiarity with the research data. The data collected from individual external auditors were analyzed, organized, and classified according to research questions as well as participants' responses to the interview questions (Glaser & Strauss, 1991; Jacob & Furgerson, 2012; Lincoln & Guba, 1985). The software was used in every step to compile study data files (created a file for each participant) and specific identification of each participant, and addition of electronic field notes. The NVivo 11 software was utilized as a tool to process and analyze data collected from the interviews in order to develop themes for further investigation and also assisted in the provision of percentages and frequencies of participants' responses on the themes identified (Yin, 2011).

Step two was disassembling and was where the research data was divided into smaller pieces or codes in order to become aware of patterns in the data (Lincoln & Guba, 1985; Yin, 2011). Specifically, the researcher coded the interview data utilizing in vivo coding to extract key words or short phrases from the words of participants for subsequent pattern identification to respond to the research questions under study

(Saldaña, 2013). While coding involved the arrangement of terms and phrases to achieve systematic classification, categorizing enabled the data to be regrouped, segregated, grouped, or relinked to provide meanings and explanations to the researcher (Clune et al., 2014; Hermanson et al., 2012; Lincoln & Guba, 1985; Saldaña, 2013).

Saturation occurred at the data analysis stage, where no new information was generated from the participants because saturation had been determined to occur at the point when 12 participants were interviewed (Guest et al., 2005; Patton, 2002; Yin, 2011). Similarly, saturation likely occurred towards the end of the interview of the 12th participant because very little new insights were provided; therefore, the interviews permitted the researcher to draw well grounded conclusions about fraud education (Clune et al., 2014; Hermanson et al., 2012). In this study, the first 12 qualified respondents (comprised 9 external auditors with CPA designation and 3 without CPA certification) were accepted as participants (Patton, 2002, Yin, 2011). In the event of less than 12 participants, additional names were contacted through the recruitment process until saturation was reached (Yin, 2011).

The in vivo coding method was appropriate for this qualitative researcher, who was not conversant with the coding process because of the honor it brought to the participants' voice and worldview (Saldaña, 2013). The utilization of in vivo coding ensured the provision of crucial control (check) in ascertaining whether important data from participants had been gathered (Saldaña, 2013). Saldaña (2013) asserted that "crystallization" and "condensation" will bring meaning to vital participants' words (p.92). As a result, Saldaña (2013) proffered the following recommendations for qualitative researchers: be organized and persevere, learn to handle ambiguities, be

creative and flexible, and be ethical and develop extensive vocabulary (Saldaña, 2013). There were two cycles of coding in this study. The first cycle coding took place as an initial data coding technique to place word and phrases from data in quotation marks in order to track inspired codes of participants as compared to researchers-generated codes (Saldaña, 2013).

Open coding could be utilized to break down qualitative data into discrete components for closer examination, thereby identifying each idea or concept or theme as a relevant category for the research topic and questions of interest through a comparison of the differences and similarities (Mason, 2010). The researcher could then use substantive codes to arrange the pieces into different groupings and sequence in order to interpret specific meanings from all instances of occurrences (Lincoln & Guba, 1985; Yin, 2011). This coding approach has the capacity to ground the ideas from the data using an open-mind approach because the purpose of the preliminary coding was to keep all thematically possibilities open when reading the data (Lincoln & Guba, 1985; Saldaña, 2013; Smerek, 2009). As a result, open coding allowed for reflection from nuances and contents of data to the researcher in order to provide ownership, but this line-by-line (initial) coding was suitable for researcher-generated field notes (Saldaña, 2013).

Axial coding could be used to ensure that probable relationships were categorized or identified because the process was built on the open coding process in order to connect relevant categories, by rejecting irrelevant categories in order to integrate ideas and themes for data collection from the interviews (Saldaña, 2013; Smerek, 2009). The axial coding was to be a continuation of the initial coding work to gather "fractured" or "split"

data to establish important codes because categories were to be identified within the first cycle coding (Saldaña, 2013). Additionally, axial coding could be used to analyze and gather qualitative data to achieve saturation, where no new information emerged during coding (Saldaña, 2013). Axial coding could be helpful in the identification of similar coded data in order to obtain explanations, develop major themes, and examine patterns from the data collected from the study (Saldaña, 2013).

Structural coding could be appropriate for interview transcripts because a content based approach was used to represent multiple participants with a semi-structured data collection protocols (Guest et al., 2013). Additionally, structural coding could be utilized for coding, as well as preliminary categorization of data for the examination of differences, relationship, and commonalities (Saldaña, 2013). The coding approach had the capacity to position the ideas from the data using an open-mind technique to keep all thematic possibilities when reading the data (Lincoln & Guba, 1985; Saldaña, 2013; Smerek, 2009).). The combination of coding techniques provided rigor to the research methodology because similarities and differences were established (Yin, 2011), but open, axial, and structural coding were rejected as techniques for selecting codes for this qualitative study.

The in vivo codes were used in this study as the only coding technique for the first cycle in this phase of data analysis because it was the best selection for small-scale studies (Saldaña, 2013). In vivo coding was utilized to extract words, terms, or phrases from the external auditors (participants) because of the capability of providing symbols, imagery, and metaphors which were useful in the development of themes and concepts (Saldaña, 2013). This process permitted participants' responses to be categorized using

emerging terms directly from the external auditors (interviewees), an indication of the essence of the issue under study (Glaser & Struass, 1991; Lincoln & Guba, 1985; Saldaña, 2013). Codes were assigned to demographic data such as: gender, educational level, years of experience, age, and professional certification for analysis; and as a result, external auditors' perspectives were coded using common descriptions. The emerging keywords were tracked from the interview transcripts. A set of memos was kept to capture the ongoing ideas during the coding process to provide refinements to the categorization of themes (Lincoln & Guba, 1985; Yin, 2011).

Step three was reassembling and arraying; this was where substantive codes were used to arrange the pieces into different groupings and sequenced in an organized fashion. After first cycle of coding, involving the capture of common words from short phrases and simple words from participants' sentences to facilitate the categorization of the phrases, there was the determination of final themes from the semi-structured interviews (Yin, 2011). The most important step in data analysis was the second cycle coding because the interview data was organized, stored, and analyzed within the software. The second cycle coding method was crucial in the identification of well-coded data that was similar and also helped in the organization of the data into themes and sets (Patton, 2002; Saldaña, 2013). A content analysis technique was deployed in the analysis of data to identify themes in-text and another technique, a cross-case synthesis, was used to consider each case as though it were a separate study (Patton, 2002; Yin, 2011). The analyzed research data was then interpreted in order to provide a conclusion for the study (Yin, 2011).

The NVivo 11 software was utilized to sort data in order to generate themes for analysis from the first cycle codes as the researcher searched for explanations in the data (Patton, 2002; QSR International, 2015; Saldaña, 2013). The themes emerge from the research questions and the phrases or words generated from participants as members of a group were their indigenous terms (Saldaña, 2013). As a result, patterns within the data were identified to describe or classify the important concepts that occurred or emerged from the data (Yin, 2011). The meaning that emerged from the study data was determined because the themes were established for analysis of the study (Lincoln & Guba, 1985; Yin, 2009, 2011). The investigator conducted a quality study that included internal validity in the data analysis stage, where pattern matching was applied to respond to rival explanation (Yin, 2014).

Step four was interpreting; research data was interpreted and analyzed in order to determine what emerged from the study data to ensure credibility, trustworthiness, and transferability (Lincoln & Guba, 1985; Patton, 2002; Shank, 2006). To ensure research rigor and openness, the plan was to blend the themes, external auditors' quotes, and numerical results with the interpretation of data such that the findings were related to the agency and fraud, and ELM framework for the study (Clune et al., 2014; Hermanson et al., 2012). As a result, multiple external auditors' perspectives were combined with the participants' quotes in order to provide insights regarding the pattern in the interviews to establish differences in perspectives (Clune et al., 2014; Hermanson et al., 2012). The integration of specific quotes of external auditors from the interview notes and digital-audio recording allowed for the exact phrases and words uttered by the participants to be reflected in interview transcript for analysis. The purpose of the techniques for analysis

was to ensure that the data collected through interviews and document reviews were credible, trustworthy, and transferable (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011).

Credibility ensured that the perspectives of the external auditors were believable (Lincoln & Guba, 1985; Patton, 2002). As a result, credibility was provided through the utilization of well-designed research methods through document review and interviews to compare and contrast differences and similarities for purposes of consistency (Lincoln & Guba, 1985; Shank, 2006). Trustworthiness was taking cognizance of different perspectives and varied realities in a conscientious, fair, and balanced manner (Patton, 2002; Shank, 2006). Lincoln and Guba (1985) asserted that the criteria for measuring trustworthiness include: neutrality, consistency, truth-value, and applicability; even though the conventional criteria revolved around internal validity, reliability, objectivity, and external validity. Transferability was the extent to which study results could be generalized or transferred to different settings and context (Lincoln & Guba, 1985).

Therefore, a vivid description of participants' accounts of their perspectives was included to provide credibility and authenticity of the findings of the study. The data array in the multiple case studies presented explicitly and formally to set it apart from the narrative of the case study (Yin, 2011). The final step was concluding, whereby a summary of the findings was written to arrive at a conclusion after data had been interpreted on the basis of analyzed data (Denzen & Lincoln, 2011; Lincoln & Guba, 1985; Yin, 2011). The themes were the findings and conclusions were drawn from the external auditors' perceptions of fraud education to inform accounting practice regarding fraud education. As applied in previous accounting scholarship (Clune et al., 2014; Hermanson et al., 2012), study findings were provided, as follows: first, a discussion

about gaps in fraud detection education received in undergraduate accounting programs and the detection of corporate fraud. Second, the competencies needed by accounting students to prepare them to detect fraud. Third, strategies typically used by external auditors in the field that prepared them to detect corporate fraud. Fourth, demographic and background information about study participants. Finally, all the themes related to the findings and the implication of all themes were discussed in relation to fraud education literature.

The accounting profession was provided with collaborative studies from secondary data sources that established converging lines of evidence to make the findings robust (Lincoln & Guba, 1985; Yin, 2009, 2011). Triangulating data sources (Patton, 2002, p. 559) such as interview data, professional case study documents, and cross-checking participants' interviews was utilized as evidence from multiple sources in the study (Yin, 2011, p.153). Published documents from professional accounting bodies were collected using keywords to search library databases and the websites of the IIA, the ACFE, and the AICPA. NVivo 11 databases were created from verbatim transcription of interview data and secondary documents for further analysis (Yin, 2011). Triangulation was an analytic technique in the data analysis phase used to subject the study findings to scrutiny with evidence from different sources (Lincoln & Guba, 1985; Yin, 2011). Triangulation of study data strengthened this study through the combination of sources because various data categories produced different outcomes. As a result, evidence from different sources produced consistency and made the study more robust (Lincoln & Guba, 1985; Patton, 2002; Stake, 1995; Yin, 2011).

According to Lincoln and Guba (1985), the reasons for the usage of documents review for data collection and analysis in research included the following: availability, stability, richness, legality, and non-reactiveness. Triangulation was used in the study as follows: (a) ensured the comparison of the study findings from interviews using digital audio tapes and notes (Patton, 2002; Yin, 2011). (b) Professionally published documents were used for better understandability of the research problem to allow for consistency of themes and thoughts based on findings from experts in the field (Patton, 2002; Yin, 2011). The plan was to triangulate the field data using different professional publications such as: ACFE Global fraud reports, AICPA's *Accounting Trends* and publications on core competencies, IIA's Global Internal Audit Surveys, and existing literature to validate the findings. While complexities existed in the analysis of the professional case study professional documents, due care was exercised to mitigate the variations in sorting out relevant typologies in this study (Lincoln & Guba, 1985).

The researcher used member-check for participants to either correct or improve the accuracy of the study, thereby ensured ethical relationships and reinforced collaboration (Yin, 2011). According to Clune et al. (2014), Hermanson et al. (2012), and Lincoln and Guba (1985), member checking was a fundamental technique for the establishment of credibility in a research study because of the following: first, provided opportunity for participants to volunteer relevant information and made correction to facts in order to challenge perceived wrong interpretations. Second, ensured the accuracy of the researcher's recording because the participants' responses were attributed to them in order to provide for intentions to be assessed (Lincoln & Guba, 1985). Lastly, provided opportunity for participants to validate their data points and also allowed for the

researcher to summarize data for further analysis (Lincoln & Guba, 1985). According to scholars (Lincoln & Guba, 1985; Yin, 2011), member-checking was a procedure utilized to share the study's findings with the participants.

Assumptions

The fundamental assumption for the study was that action can be initiated to detect corporate fraud by external auditors when fraud education is incorporated into the undergraduate accounting curriculum. There was a possibility that accounting educators were willing to add fraud detection topics and forensic accounting courses to the undergraduate accounting programs in order to prepare external auditors to detect corporate fraud. A further assumption was that the selection of external auditors was homogenous in terms of their education and practical auditing experience. Similarly, participants from Northern Illinois were willing to take part in the study. Furthermore, the participants provided their perspectives openly and truthfully on the basis of confidentiality and privacy assurances provided in the study. There was also the assumption that the external auditors were honest in their interview responses. Honesty was encouraged through the assurance of confidentiality to the extent of the law and anonymity as much as possible. CPA firms and the accounting profession may be informed about the sufficiency of fraud education and the needed competencies at the undergraduate accounting programs to possibly assist in the preparation of external auditors to detect corporate fraud. Additionally, there was the possibility that participants were willing to discuss their perspectives more freely because the researcher was also an educator and accountant in the Northern Illinois. Another assumption was that the

literature from peer-reviewed sources and those from professional accounting bodies, including: IIA, ACFE, and AICPA were accurate.

Limitations

There was the limitation of time due to the availability of participants in the study as well as the suitability of the research instruments employed. The study was confined to interviewing a purposive sample of 12 external auditors within the Northern Illinois. The utilization of a purposive sampling required a detailed understanding of rich information; as a result, the study concentrated on the external auditors' perspectives on the fraud education from undergraduate accounting programs that prepared them to detect fraud. Due to the nature and subjectivity of responses by participants, there was a limitation on the outcome of the study. The outcome of the study depended upon the willingness of external auditors to participate and the integrity of the research process. Another limitation was participant's withholding of important information in their responses regarding the study (Patton, 2002; Yin, 2011). Furthermore, there was an association between the researcher's history, background, prior understanding, and context and the interpretation of the study (Shank, 2006). There was the constraint of accessibility to relevant literature in the libraries because little work has been done in the topic area by the accounting profession. The study was limited to undergraduate accounting programs and not the graduate schools and specialized professional bodies (Daniels et al., 2010; Nix & Morgan, 2013). A further limitation was the determination of a sample size of 12 because the researcher was allowed to delve into the perspectives of the participants in relation to the topical areas (Patton, 2011; Yin, 2011). Consequently, the choice of a small sample assisted in probing in-depth into the issue of

interest (Shank, 2006; Yin, 2011). The interviews were conducted in public libraries due to the fact that some participants were not comfortable discussing missing fraud education in their undergraduate education. Similarly, interview data was affected by self-seeking responses from participants, recall errors, and their reaction to the researcher (Patton, 2002).

Delimitations

The scope of this study was concentrated on only external auditors, however, further studies could compare the perspectives of corporate management, educators, and internal auditors. The study was delimited by the utilization of open-ended interview questions and the review of documents, as compared to use of Likert scales and surveys. Unlike, Likert scales and surveys, which limited participants' responses to pre-established choices (Patton, 2002), an open-ended question format ensured that the researcher illicited responses from the participants' perspectives of the phenomenon (Patton, 2002; Yin, 2011). The researcher used a digital audio voice recorder to provide a recollection of the participant's appreciation of the interview questions. A further delimitation was the study focus on Northern Illinois as the geographic location, and the selection of participants who were members of the IAAI, the ACFE, and the ICPAS; hold a bachelor degree, and have a minimum of 1 year of accounting experience. Recall errors were mitigated by taking accurate interview notes which were read back to the participants to ascertain the accuracy of the data collected. The searches in the libraries were extended to cover expanded scope within the online databases because few scholarships existed in the topical area.

Ethical Assurances

The researcher obtained and received NCU IRB approval prior to the conduct of the research, because ethical assurances were part of qualitative research (Denzin & Lincoln, 2011). Institutional review board (IRB) approval by Northcentral University was obtained by submitting an application for permission to conduct fieldwork to ensure that this study was undertaken according to research protocols (APA, 2012; Carver, Dellva, Emmanuel, & Parchure, 2012; Committee, 2009; Dyer & Demeritt, 2009; Mathur, Dhillon, Kaira, Sharma, & Mathur, 2013). There was a disclosure of the ethical procedure followed to ensure that ultimate publication of the dissertation was based on a strong research practice (Mathur et al., 2013).

Informed consent was obtained to ensure that external auditors understood the benefits and risks related to participation in the study (Yin, 2011). The participants were reminded of the voluntary nature of participation, as well as rights regarding participants' protection (Yin, 2011). Informed consent was applied to provide opportunity to potential participants to ask clarifying questions of the researcher. For this reason, the ethical principle of respect for persons was facilitated. The use of the informed consent form indicated the voluntary nature of participation, as each individual could decline to participate, without any penalty or adverse consequences (APA, 2012; Cozby, 2012). The data was protected with password and the computer on which the data was stored was secured with password for use by the researcher alone. In the case of the hard copy of interview data such as the interview notes and signed and completed informed consent forms, a safe cabinet under lock and key was used to keep the data.

In this qualitative study, data and records associated with the scientific work were created, stored, maintained, retained, disseminated, and disposed of to ensure that services were provided later to the accounting profession (APA, 2012). The data for the case study included transcript from semi-structured interviews lasting between 40 and 65 minutes and the taking of interviews notes and later transcribed the data verbatim, informed consent forms, contact information, and digitally audio-recorded interviews. As a result, data was not being manipulated in any way that deceived others because it was a violation of the basic values and widely accepted professional standards of science (APA, 2012; Committee, 2009; Millum, 2012; Petrini, 2010; Regmi, 2011).

The Belmont Report was applied to provide for the external auditors in this research, since research participants may be vulnerable. The five ethical principles were articulated (a) responsibility, (b) integrity, (c) beneficence, (d) respect for human rights and dignity, and (e) justice (Cozby, 2012). The researcher ensured that due care was exercised in order to avoid ethical misconduct in this accounting research because investigators should implement and incorporate ways of protecting study participants (Miller & Becker, 2011; Ozman-Uysal, 2010; Vladu & Cuzdriorean, 2013; Yin, 2011). According to Buys et al. (2012), the accounting code of conduct was built around the main principles of confidentiality, integrity, objectivity, and competency; therefore, ethical theories provided the foundation for this research. For this reason, the protection of the human participants centered on the following considerations: obtained voluntary informed consent from participants; assessed the risk, harm, and benefits of the research project; selected the participants equitably such that no group of external auditors were unfairly excluded or included in the study.

There was the provision of an appropriate guarantee of confidentiality to the extent of the law. There was privacy of the research participants to the extent that contact details were provided if the need arose throughout the entire research process (Committee, 2009; Pettifor, McCarron, Schoepp, Stark, & Stewart, 2011). Permission was obtained from each external auditor before recording of their voices (American Psychological Association, 2012). Therefore, the opportunity to handle all issues of deception, withholding information, and probable harmful consequences of participation were addressed (Cozby & Bates, 2012). Similarly, debriefing took place at the end of the study.

The steps incorporated ethical integrity into this dissertation to be justified because researchers indicated and implemented measures to protect all the people taking part in the study (Cozby, 2012; Petrini, 2010; Yin, 2011). There was the combination of personal ethical principles and published ethical concepts and guidelines in this doctoral research. The safety of the external auditors (study participants) was ensured by matching risk due to treatment to probable benefits of the research. The risk of participation was minimized to ensure that participants' responses were not shared with others (Yin, 2011) because the external auditors (participants) belonged to three professional associations (the IAAI, the ACFE, and the ICPAS) and their personal information on fraud education within the context of corporate fraud detection could jeopardize their professional practice and employment.

The face-to-face interviews were conducted in reserved rooms in public libraries near the offices and homes of participants, and members with physical limitations were accommodated (Yin, 2011). The significant benefit to participants was the possible

appreciation of their own perspectives on the received fraud education in undergraduate accounting programs, competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs. In addition, there was identification of the cost-benefits of participation in the research through participation and level of involvement as well as related risks for participation. The intention of this researcher was to promote maximum research benefits, while minimizing the research-associated risks.

Ethical concerns were addressed in the collection and analysis of research data in order to achieve a philosophical moral study outcome (APA, 2012; Dunn, Sheehan, Hope, & Parker, 2012; Regmi, 2011). Ethical concerns were given consideration before study data was collected. Integrity in research was important in qualitative studies because the words and statements of the researcher should be trusted to represent the statements and positions stipulated (Yin, 2011). The researcher placed reliance on the continuous insightful research guidance from the dissertation chair throughout the research (Committee, 2009; Pettifor et al., 2011). The researcher completed the required mandatory course conducted by Collaborative Institutional Training Initiative on research ethics on March 16, 2013, and retaken on November 3, 2015 to ensure the application of regulations in this study. Therefore, ethical assurances were integrated in this research in accounting from the review of literature to the conducting of the research, to the writing of the research report because all human undertakings were affected by the principles of ethics (Calabretta, Durisin, & Ogliengo, 2011; Darcy et al., 2011; Millum, 2012; Modarres & Raflee, 2011; Sankaran & Bui, 2013; Yin, 2009, 2011).

Summary

The problem that was addressed in this study was that external auditors have detected less than 5% of fraud cases because they lack fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Agarwal & Medury, 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Meier et al., 2010; Plumlee et al., 2015; Rahman & Anwar, 2014; Reidy & Theobald, 2011). The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. This qualitative study involved participants' actions, attitudes, and perceptions; therefore, the case study approach was utilized to address the research questions (Lincoln & Guba, 1985; Patton, 2002; Yin, 2009, 2011). The cases of the external auditors possibly provided the accounting profession with perspectives on fraud education.

The collection of data from a purposive sample of 12 external auditors was accomplished via semi-structured interviews. Study participants were drawn from the database of membership of the IAAI, the ICPAS, and the ACFE from Northern Illinois in the United States of America. The participants for this project were external auditors who have at least 1 year of practical experience in the field of auditing and hold a bachelor degree. The external auditors' perspectives were collected as study data, summarized, and analyzed with the help of NVivo 11 qualitative research software (QSR International, 2015). The triangulation of documents such as the AICPA's *Accounting Trends* and *Competencies*, the IIA's Global Internal Audit Survey, and the ACFE's

Global Fraud Reports was applied to utilize a variety of sources to permit the researcher to build a strong case based on the strength and weaknesses of a particular source. A research report was written to confirm or disconfirm (Yin, 2011) prior research findings and conclusions from professional publications. Study conclusions will possibly benefit accounting practitioners, public accounting firms, and may inform accounting educators with valuable information on fraud education.

Chapter 4: Findings

This qualitative exploratory multiple-case study explored external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. The problem addressed in the study was that external auditors have detected less than 5% of fraud cases (Agarwal & Medury, 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Rahman & Anwar, 2014; Reidy & Theobald, 2011) because they lacked fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Meier, Kamath, & He, 2010; Plumlee et al., 2015). This qualitative research study was designed as an exploratory, holistic, multiple-case study research methodology (Patton, 2002; Yin, 2011) because little research work existed on the external auditors' perspectives on fraud education, according to prior literature (Apostolou et al., 2013; Apostolou et al., 2015; Ramadhan, 2015; Shank, 2006; Yin, 2011). There were no known qualitative studies on fraud detection courses and forensic accounting topics from undergraduate accounting programs that helped to prepare external auditors to detect corporate fraud. An exploratory approach to case study research was utilized to articulate external auditors' perspectives on fraud education (Yin, 2011).

Three professional accounting bodies were used to recruit the members for the study in order to broaden the base for data collection, involving the following: the Independent Auditors Association of Illinois (IAAI), the Illinois Certified Public Accountants Society (ICPAS), and the Association of Certified Fraud Examiners (ACFE). This brought the target population to 99,442. The membership information of

these professional accounting bodies was readily accessible from their websites. The selection of participants from the IAAI, the ACFE, and the ICPAS ensured a homogenous professional accounting group that secured external auditors' perspectives. In this study, a purposive sample of 12 external auditors was recruited or until saturation was reached (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011). The research questions were as follows:

Q1. How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs prepared them to detect corporate fraud?

Q2. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?

Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?

After obtaining NCU-IRB approval and modification approval, 130 participants were invited for the study. The membership details of the professional associations, such as CPA certification, practitioner's name, address, email address, and telephone numbers was used to search for potential participants for the study. A total of 21 prospective participants had shown interest in the research study but six declined participation, as follows: 1 was writing the financial section research of the Midwest states of United States, 1 did not have time for a face-to-face interview but preferred a phone interview, 1 had bachelor's degree in psychology before going for a certificate course to prepare for

the CPA certification, 1 felt unprepared to respond to the interview questions; and 2 were currently resident in another state. Three never scheduled for a face-to-face interview.

A 3-step approach was utilized to recruit the study participants as follows: step (a) after IRB approval, an internet search was done using Google to find IAAI website. Step (b) involved with reviewing the background of potential participants who responded to the invitation letters via email to establish whether they also met the study criteria. Step (c) covered the sending of interview questions via email to those who accepted to be participants for the study (see Appendix A). The participants were afforded the opportunity to familiarize themselves with the interview protocols prior to the interviews.

The 130 prospective participants were invited as follows: first, ninety prospective participants made up of 3 sets of randomized numbers of 30 external auditors were contacted with invitation letters for participation. Out of this number, 11 emails were returned undelivered and 1 "out of office" notice was received. At the end of 21 days, no responses had been received. Second, thirty invitation letters were sent to prospective participants from the 3 professional accounting bodies (the ICPAS, the IAAI, and the ACFE). Third, on Thursday, August 4, 2016, ten prospective participants were contacted to broaden the recruitment base but none responded to the email invitation. One hundred and eighteen representing 91% never responded to the invitation to participate.

There was a purposeful selection of two "cases" made up of 9 external auditors with CPA certification and 3 external auditors without a CPA designation that permitted contrasting and comparison on the issues to be undertaken within 3 phases. In the first phase, the cases for this study were defined as experienced external auditors belonging to the IAAI, the ACFE, and the ICPAS (Yin, 2009). In the second phase, this study was

established as a multiple-case study because a multiple-case study approach possibly yielded better outcomes from the utilization of two groups of external auditors (Yin, 2009, 2011, 2014). In the final phase, the cases were defined to encompass two groups of participants interviewed, who were experienced external auditors belonging to the IAAI, the ACFE, and the ICPAS (Yin, 2009). A multiple-case study approach was deemed the most appropriate because the intended focus of this study was on the external auditor as a unit of analysis (Yin, 2011).

An NCU-IRB modification approval was obtained to utilize snowball sampling as a purposeful and direct approach to conduct a comprehensive study that took advantage of the social networks that existed among members of the accountancy fraternity. The sampling technique was changed from purposive criterion random sampling to a combination of purposive snowball and criterion sampling because qualitative studies are purposive (Yin, 2011). The snowball sampling technique was deployed in 3 steps, as follows: Step 1, identified some members of the three professional accounting bodies (the IAAI, the ICPAS, and the ACFE) who met the inclusion criteria were utilized to recruit the prospective participants for the study (Yin, 2011). Step 2 involved the selected participants also recommending their colleagues who also met the inclusive criteria and were willing to participate in the study. Step 3 revolved around selected and recommended prospective participants being asked to recommend other potential participants for the study (Yin, 2011) until the sample size of 12 was obtained.

A qualitative study was purposive (Yin, 2011) and provided justification for the application of a purposive snowball sample to identify prospective participants because the members of the IAAI were difficult to find for the study. Snowball sampling was the

utmost preference because the technique was best for exploratory purposes (Patton, 2002; Yin, 2011). As a result, participants were selected based on the additional and relevant information contributed to the study and not just their availability and willingness to spare some time (Yin, 2011, p.89). Snowball sampling was chosen to permit new data collection units' act as offshoot of existing external auditors to gather relevant and insightful data for the study (Yin, 2011, p.104). Criterion sampling was utilized to select all cases of external auditors that met set criteria so as to provide rich and detailed data that was relevant to fraud education (Patton, 2002, p.238). The specific inclusive criteria were the following: (a) holder of a bachelor's degree in accounting, (b) have at least 1 year of practical audit field experience, and (c) practice or reside in Northern Illinois. There was the presumption of the challenge of getting a sample that appeared to be representative of the population and not just the support about the research question (Yin, 2011).

Each participant received the research questions 2 days before the scheduled interview to acquaint themselves of the questions in order to prepare themselves mentally for the face-to-face interview. The structure of the interview guide was to break down the research topic into smaller parts such that participants' responses were not difficult to capture (Clune et al., 2014; Jacob & Furgerson, 2012; Lincoln & Guba, 1985; Yin, 2011). Interview appointments were scheduled to accommodate participants' availability in reserved rooms at public libraries near the participants' residence or offices. The procedure for the library interview was as follows: first, more information about the study covering informed consent issues and interview questions was sent to the prospective participants (see Appendix C). Second, the members indicated their preference for a

public library. Finally, the specific libraries were either visited or contacted using phone call to reserve a secured room for the interviews. Each member was given opportunity to ask questions and the interview appointment was confirmed, but the signing of the informed consent form was done before the start of the actual interview. Details of participants interviewed during fieldwork (Table 3) have been provided below.

Table 3

A Schedule of Progress of Participants' Face-to-Face Interviews

Week of Fieldwork	Number of Participants Interviewed
Week 1	5
Week 2	2
Week 3	2
Week 4	1
Week 5	1
Week 6	1
Week 7	0
Week 8	0

On the average, 2 participants were interviewed from week 1 to week 6 to accommodate the participants' busy work schedule even though no specific time frame was designed for each participant to discuss their perspectives on fraud education in the context of corporate fraud detection. The interview time ranged from 40 minutes to 65 minutes. Fieldwork begun after NCU-IRB approval on May 3, 2016 and ended on August 8, 2016, spanning 72 days.

Data was collected through in-depth interviews obtained through face-to-face interview in reserved rooms in public libraries, interviews were audio-recorded, process notes were taken during the interviews, and the interviews were open-ended format. The interview protocol included 22 questions based on three central research questions (see Appendix A), which were field tested by three experts (Hermanson et al., 2012; Jacob & Furgerson, 2012; Patton, 2002; Yin, 2011). For storage purposes, the transcription from the interview data was saved in Microsoft word documents as part of data processing. Keywords that emerged from different questions were used to analyze the common elements of the participants' responses (Hermanson et al., 2012).

The objective of qualitative research was to philosophically, strategically, and methodically reduce the inclusion of pre-established answers to data collection because interview questions needed to be posed in an open-ended interview format for participants' response in their words (Patton, 2002, p. 353). The recorded interview data was based on informed consent forms and transcribed verbatim within 2 days to prevent the loss of data to memory losses (Butler, 2015; Glaser & Strauss, 1991; Jacob & Furgerson, 2012). Each participant had 1 set of handwritten transcript because the digital-audio recording of interviews was voluntary. The handwritten interview notes were reviewed in conjunction with transcribed interview data from the digital audio tape recording. All transcripts from the interviews were reviewed several times to ensure completeness and accuracy of data collection (Jacob & Furgerson, 2012; Patton, 2002; Shank, 2006) and a master file was created for the interview data (Clune et al., 2014; Hermanson et al., 2012). The interview notes were compared to the digital-audio

recording in order to resolve any differences (Clune et al., 2014; Hermanson et al., 2012; Jacob & Furgerson, 2012).

Member-checking was achieved by repeating participants' responses back to them (Clune et al., 2014, Hermanson et al., 2012, Lincoln & Guba, 1985; Yin, 2011). The interview transcripts and field notes were sorted into a database, while gaining familiarity with the research data. A summary sheet in Microsoft word document was created for each participant for further analysis. Pseudonyms were applied for the participating external auditors in the analysis and reporting of the research results, also protected the identities of the participants.

The interview data were coded utilizing in vivo coding to extract key words or short phrases from the words of participants for subsequent pattern identification to respond to the research questions under study (Saldaña, 2013). The first cycle coding took place as an initial data coding technique and placed word and phrases from data in quotation marks to track inspired codes of participants as compared to researchers-generated codes (Saldaña, 2013). This process permitted participants' responses to be categorized using emerging terms directly from the participants' indigenous words and phrases, an indication of the essence of the issue under study (Glaser & Strauss, 1991; Lincoln & Guba, 1985; Saldaña, 2013). Codes were assigned to demographic data such as: gender, educational level, years of experience, age, and professional certification for analysis. Consequently, external auditors' perspectives were coded using common descriptions from the emerging keywords tracked from the interview transcripts.

The following coding approaches were reviewed, but dismissed for this study: open coding, axial coding, and structural coding (Saldaña, 2013). The first cycle of

coding involved the capture of common words from short phrases and simple words from participants' sentences and facilitated the categorization of the phrases, there was the determination of final themes from the semi-structured interviews (Yin, 2011). The in vivo coding was chosen for the first cycle coding, but the second cycle coding combined a content analysis technique and a cross-case synthesis (Patton, 2002; Saldaña, 2013; Yin, 2011). The in vivo codes were used in this study as the only coding technique for the first cycle in this phase of data analysis because it was the best selection for small scale studies (Saldaña, 2013). In vivo coding was utilized to extract words, terms, or phrases from the external auditors (participants) because of the possibility of providing symbols, imagery, and metaphors which were useful in the development of themes and concepts (Saldaña, 2013). A set of memos was kept to capture the ongoing ideas during the coding process to provide refinements to the categorization of themes (Lincoln & Guba, 1985; Yin, 2011). The most important step in data analysis was the second cycle coding because the interview data was organized, stored, and analyzed within the NVivo 11 qualitative software. Chapter 4 provided an overview of sample, a vivid description of data collection, analysis, and results. Followed by evaluation and a summary of findings to conclude the chapter.

Results

Yin's (2011) five-phased research analysis utilized included the following: compiling, dissembling, reassembling, interpreting, and concluding. Step one was compiling; the researcher gained familiarity with the research data during the research analysis stage by sorting the interview data in the database in the Microsoft word document, consisting of transcripts and field notes, in an orderly fashion. Step two was

disassembling, where the research data was divided into smaller pieces or codes in order to become aware of patterns in the data (Lincoln & Guba, 1985; Yin, 2011). Step three was reassembling and arraying; this was where substantive codes were used to arrange the pieces into different groupings and sequenced. Step four was interpreting; research data was interpreted and analyzed in order to determine what was emerging from the study data and ensured credibility, trustworthiness, and transferability (Lincoln & Guba, 1985; Patton, 2002; Shank, 2006).

The themes that emerged from the research questions and participants' generated phrases or words as members of a group were their indigenous terms (Saldaña, 2013). For that reason, the themes and concepts were not pre-determined for this study. Patterns within the data were identified, described, or classified as important concepts that occurred or emerged from the data (Yin, 2011). The meaning that emerged from the study data determined the themes established for analysis of the study (Lincoln & Guba, 1985; Yin, 2009, 2011). In this exploratory multiple-case study, a varied data collection approaches were combined, as follows: digital-audio recording, interview notes, and document reviews (Patton, 2002; Yin, 2011). According to Patton (2002) the analytic decisions are the responsibility of researchers, as a result, the techniques for analysis ensured that the data collected through interviews and document reviews were credible, trustworthy, and transferable (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011).

The second cycle coding method was crucial in the identification of well-coded data that was similar and also helped in the organization of the data into themes and sets (Patton, 2002; Saldaña, 2013). A content analysis technique was deployed in the analysis of data, which identified themes in-text and another technique, a cross-case synthesis,

was used to consider each case as though it were a separate study (Patton, 2002; Yin, 2011). In the latter technique, each of the two "cases" of external auditors were considered separate such that the cases' similarities and differences were determined (Patton, 2002; Yin, 2011). Patterns and themes were categorized for data organization (Patton, 2002; Saldaña, 2013; Yin, 2011) To ensure research rigor and openness, the themes, external auditors' quotes, and numerical results with the interpretation of data were blended such that the findings related to the agency and fraud, and ELM framework for the study (Clune et al., 2014; Hermanson et al., 2012). As a result, the two groups of external auditors' data were combined with the participants' quotes to provide insights regarding the pattern in the interviews and established similarities and differences in perspectives (Clune et al., 2014; Hermanson et al., 2012). As used in Simha and Satyanarayan (2016), the integration of specific quotes of external auditors from the interview notes and digital-audio recording allowed for the exact phrases and words uttered by the participants to be reflected in interview transcript for analysis.

The final data for analysis consisted of the following: Excel workbook, research journal logs, field notes, transcript of the interviews, and audio recording. The field data was triangulated using multiple secondary sources such as the ACFE Global fraud reports, AICPA's Accounting Trends and publications on core competencies, and IIA's Global Internal Audit Surveys to validate study findings (Lincoln & Guba, 1985; Patton, 2002; Yin, 2011). Triangulation is an analytic techniques used to subject the study findings to evidence from different sources (Lincoln & Guba, 1985; Yin, 2011). Consequently, triangulation of the field data was carried out using different professional case study documents to validate the study findings (Lincoln & Guba, 1985; Patton,

2002; Yin, 2011). A methodical triangulation was conducted to varied methods and examined the study problem through the lens of interviews and professional publication (Patton, 2002; Yin, 2011).

Participants' demographic characteristics (see Appendix D and E) revealed the following: first, the ages of participants ranged from 33.34% (18-29 years), 33.33 (30-49 years), and 33.33 (50-59 years). None of the participants was aged beyond 60, even though the study was opened to participants above 60-65 years. Second, the participants attended colleges and universities predominantly in the state of Illinois, making up 67%; the remaining were 1(8.33%) each from the following states: Florida, Indiana, and Missouri; and 1(8.33%) from Ghana in Africa. Third, participants graduated from their undergraduate studies, as follows: 58.34% graduated between 1990 and 2009 (specifically, 1990-1999 was made up of 25% and 2000-2009 recorded 33.34%). While 25% of the external auditors graduated as recent as 2010-2014, the remaining 16.66% graduated between 1980 and 1989. Four, to qualify for the study, all participants had bachelor's degrees in accounting; however, 6 of them representing 40% had a master's degree in addition to the bachelor's degree such as MBA in Finance and Accounting, MSc in accounting and Communication and Management, and MAcc.

On gender, majority (9 out of 12) participants were male representing 75% and the remaining 3 participants (25%) were female. To protect the identities of the research participants, pseudonyms were used. Reasonable precaution was taken to provide for external auditors' anonymity and confidentiality (Lincoln & Guba, 1985, p.372). The pseudonyms were first names commonly used in the state of Illinois and not the actual names of participants. As a result, the pseudonyms will allow for readers to get stronger

sense of participants' perceptions (Yin, 2011, p.244). While the following external auditors were female: Samantha, Emily, and Natalie; the male participants included the following: Benjamin, Daniel, Edith, Jacob, Joshua, Kerry, Liam, Nathan, and Noah. Five, the participants also presented variations in years of professional practice as follows: 67% had experience between 1 and 9 years, 17% had experience that ranged from 10 years to 29 years, and the remaining 16% had experience between 30 and 39 years. Their average experience in the auditing field was about 4.5 years. None of the participants had experience beyond 40 years. Finally, seventy-five percent (75%) of the study participants were also CPA and the remaining 25% did not have a CPA certification, some of the CPAs also held other certification. In addition to bachelor's degree in accounting, 3 participants had a range of professional certification such as: CPA, CISA, and GCIMA.

Details of demographic information for the participants covering: years of practice in auditing, age range, years of graduation, location of colleges and universities, gender, academic qualification, and professional certification have been provided in Appendix D and E. The two "cases" for the study involved experienced external auditors with CPA certification on one hand, and experienced external auditors without CPA designation on the other hand to help in the comparing and contrasting of perspectives between these two unique groups. Initially, the study proposal was to include 6 external auditors (40%) with CPA certification and 9 external auditors (60%) without CPA designation because 60% of accounting graduates from the undergraduate level are employed by accounting firms and 50% are also assigned accounting and auditing roles and functions (AICPA, 2013). Nevertheless, during fieldwork, more external auditors

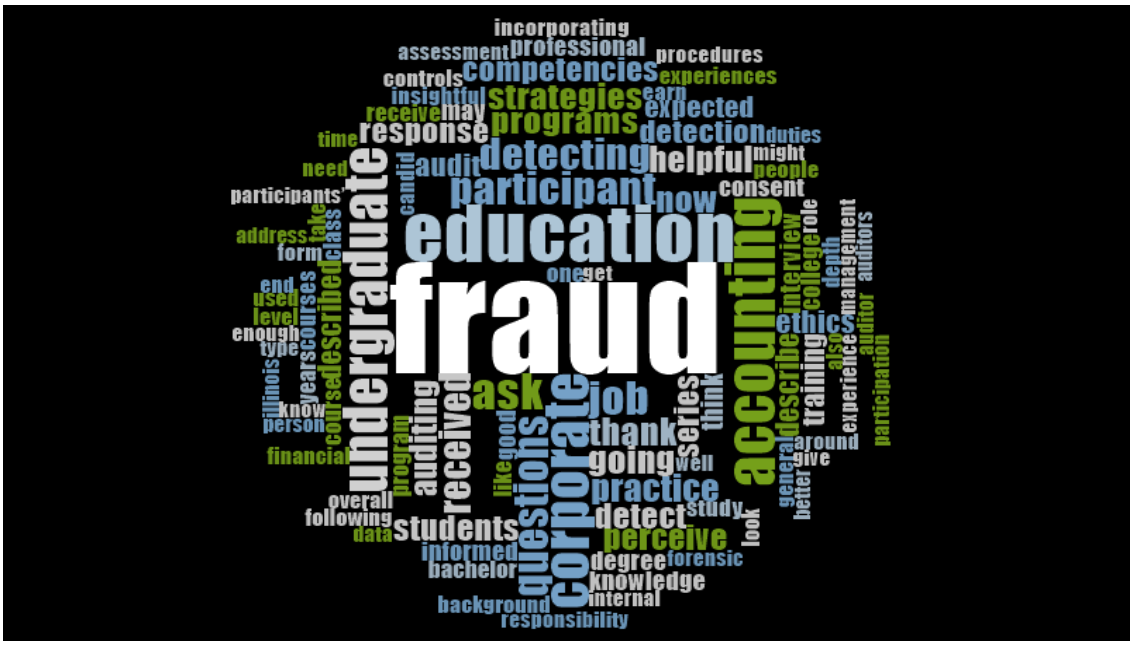
with CPA certification were willing to take part in the study (see Table 3). The following participants were CPAs: Benjamin, Daniel, Edith, Emily, Joshua, Kerry, Liam, Nathan, and Samantha; and those without CPA designation were: Jacob, Natalie, and Noah. Consequently, the 75% of participants with CPA certification constituted one study "case" and the remaining 25% without a CPA designation became the other "case" for this study.

The participants in the study were active external auditors working in different organizations and /or residing in different cities in Northern Illinois. A total of 12 external auditors participated in the study (Adler & Adler, 1987; Brannen & Nilsen, 2011; Reimer, 1977; Sacks, 1992; Small, 2009). In any case, data saturation was obtained at about 11 participants because data saturation occurs when 12 people are interviewed (Guest et al., 2005, 2006; Lincoln & Guba, 1985; Patton, 2002; Stake, 2006; Yin, 2011). Consent forms were obtained for 12 people and data collection ended on August 8, 2016, when final total of 12 participants was obtained. A description of results is presented for the research questions individually based on themes, and followed by an evaluation of the study findings in association with the professional literature reviewed in the field.

A total of 16 themes comprising 9 major themes and 7 sub-themes (minor) focused on undergraduate accounting fraud education. While the main ideas from the participants' interview data were represented as major themes, the secondary ideas were presented as minor or sub-themes; and discussed under the major themes. The themes were generated on participants' thought processes and judgement that influenced them to

take decisions across a wide range of tasks. Nvivo 11 software was utilized to describe participants' word cloud from their responses in Figure 1 below.

Figure 1. Description of Participants' Word Cloud



From the analysis of the interview transcripts, the nine major themes for the study emanated from the research questions as follows: three themes emerged from the first research question, three themes were derived from the second research questions, and three themes came up from the third research question. The themes were elaborated and supported by consideration of individual external auditors' quotes from the participants (Simha & Satyanarayan, 2016). The major themes and minor themes are shown in Table 4 and Table 5 respectively. The participants were able to link their auditing experience to their undergraduate accounting education. The sub-themes were discussed under the main themes for the research questions.

Table 4

Main Themes and Sub-Themes for Research Questions

Research Questions	Main Themes	Frequency
RQ 1.	Corporate fraud detection	92%
	Fraud education on-the-job	83.3%
	Fraud education in college	75%
RQ 2.	Fraud detection/mitigation strategies	100%
	Expected competencies	75%
	Overall assessment of fraud education in college	58.3%
RQ 3.	Strategies for integrating fraud education	100%
	Need for integration of fraud education	92%
	Overall assessment of fraud education on-the-job	83.3%

The three major themes under research question one that emerged from the research data and provided in Table 6 below were, as follows: corporate fraud detection in practice, fraud education on-the-job, and fraud education in college. The three sub-themes under research question 1 include: other fraud detection education, fraud detection responsibility, and education on doing what is right.

Table 5

Minor Themes for Research Questions

Research Questions	Minor Themes	Frequency
RQ 1.	Other fraud detection education	83.3%
	Responsibility for fraud detection	58.3%
	Education on doing what is right	58.3%
RQ 2.	Helpfulness of perceived competencies	75%
	Other fraud detection competencies	75%
RQ 3.	Helpfulness of practical fraud education	75%
	Helpfulness of college fraud education	58.3%

The first research question for the study was:

Q1. How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs prepared them to detect corporate fraud?

Table 6

Themes Describing Fraud Detection and Education

RQ 1	**Q1.** How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs prepared them to detect corporate fraud?		
Themes (3)	Corporate fraud detection in practice	Fraud education on-the-job	Fraud education in college

Corporate fraud detection in practice. On corporate fraud detection in practice, participants accepted some level of responsibility but unanimously attributed fraud detection and prevention to management, and consequently rejected the suggestion that fraud detection was their main pre-occupation. Accordingly, designing audit procedures to detect material misstatements was accepted by participants as their responsibility. I asked participants to describe their experiences with fraud detection without mentioning names of institutions, and the responses of some participants are provided below: "We perform walk-through tests by ensuring controls are in place. We do planning in every audit. Going through transaction cycles. Segregation of duties and making fraud identifiable." (Edith). Edith further explained:

> I haven't come across fraud. A company I audited complained they lost 4 computers. There is not much that can be done. I have not had any experience of fraud taking place. You perform-you take it to the engagement leader to get his

take on it. Perform more test around those items to determine how serious a problem it could be.

As a result, Emily also revealed that:

> It depends on which position I am occupying. I am currently a CFO but my role is to make sure that people in a position do not commit fraud. This is accomplished through regular review and job rotation. There should be segregation of duties because there is an interconnection such that the one who makes deposits is different from ... to ensure that nothing bad happens. More than one person should know how to do each job. As an auditor, my duty was to facilitate the detection of fraud in general.

Additionally, Kerry added the following:

> I am primarily responsible for protecting the organization's assets and also to ensure financial statements are reported accurately. I think auditors have the responsibility to detect fraud in the first place. Technically, the responsibility of auditors is not to detect fraud but in recent times the accounting profession has risen to the occasion to include fraud detection under SAS 99.

Benjamin also offered:

> In reality management has the responsibility to ensure adequacy of internal controls to prevent fraud in every organization. As an external auditor I have the responsibility to make sure that internal controls are in place and internal controls are being adhered to. So my role for fraud detection is to ensure that management is going by the rules.

In another development, a participant (Daniel) narrated:

> Because of the Sarbanes Oxley (SOX) Act of 2002, I perceive it to be my day-to-day responsibility for looking and instilling internal controls in audit procedures to see whether corruption, misstatements of assets, and fraudulent financial reporting. I look at bank reconciliation regarding adjustments and timeliness and kiting. On accounts receivables, I look for lapping. I look at myself as auditor and I look at things as to whether everything looks proper such as red flags.

For that reason, Noah explained as follows:

> So my responsibility to test and detect fraud is determined everyday just to provide reasonable assurance by testing enough samples to give assurances that things are going on well. The purpose is to detect fraud. IT audit is performed on company systems such as HR, access, and test systems to ensure security assurance and to ensure segregation of duties. If controls are absent, we have communication with the client to seek more information in order to prescribe solutions.

Benjamin responded:

> As specified in the audit reports, as an auditor, I have to make sure that as I said before, I ensure adequacy of internal controls by ensuring that internal controls are in place. I also draw samples and verify the information, observe to make sure that the internal controls are being followed. My responsibility is not to detect fraud but if I find one, I will inform management and help them to address them to ensure that the event or issue is not repeated and also dealt with.

Additionally, "my responsibility for detecting corporate fraud is not described or written in my position description; however, it is inherent in discharging my daily responsibilities on my job." (Nathan). Consequently, Liam affirmed:

> We want to look at the financial statement to provide opinion on the financial statements. If fraud existed, we get understanding and get the client to know about it, but we provide opinion about the financial statement. Our responsible for corporate fraud detection is limited to designing audit procedures to detect material misstatements.

This view appeared to have been corroborated by Samantha who stated as follows:

> Opinion letters stipulate that fraud detection is not our responsibility so that is what we state on our engagement letters. In the course of our audits, if fraud is detected, we inform the client. It is the responsibility of CIAs to do so, but CPAs do not have the responsibility so to do. ACFE members are responsible for detecting corporate fraud.

Also, Daniel had this to say:

> I describe by establishing internal controls such as segregation of duties, working with corporate compliance and instituting controls to prevent fraud. For example, check segregation of duties and dual signatures on checks to ensure that checks are destroyed for dormant accounts. Also amounts above $1,000 should be approved by the chief executive officer. On competitive bids, ensuring that works are not given to relations and also checks made in cash even though may be small because people might be taking monies in bit and pieces. Making sure that checks are locked up.

However, one participant appeared to suggest auditing as a personal responsibility over professional responsibility and stated as follows: "Doing your research about fraud, ethics, having financial integrity. Personal responsibility. That is the main reason for auditing-*fairly stated financial statement*, internal controls in accordance to GAAP and GAAS. In the past it was basic GAAP and GAAS." (Natalie).

Furthermore, when participants were asked how corporate fraud was detected and addressed, they explained as follows:

> I have specifically not witness a fraud but the propensity to commit it is intense. In my role, I try to take away the opportunity and the incentive available to commit fraud. If I come across any fraud, I will take steps to investigate it further and also keep my engagement team in the loop so we will be on the same page. Management will be informed and steps will be provided to address the problem." (Kerry).

The quotes below are attributable to some of the study participants: first,

> I have not come across any major corporate fraud but if any fraud occurred. Then, you inform those charged with governance. I will give recommendations to address the problem as to what is needed for those issues. I will find out more about the suspicion and if the suspicion is confirmed, I will let the client know about it. (Benjamin).

Second, Natalie stated emphatically that there has been no corporate fraud detection as follows: "None. There are always basic errors but none like fraud." On the contrary, another participant narrated:

> I was auditing a client and noticed fraud through payroll audit and I dug deeper to find that there was a non-existent person on payroll and the attention of the Executive director was called to the fraud. There was also the issue of compliance, where an employee with consent of the director, was using company vehicles to do personal consulting. When this was discovered, the attention of the Board of directors was called to the non-compliance issue. I would not say this is a fraud per se but a non-compliance issue. (Samantha).

Additionally, Daniel stated:

> When I was a CFO in an organization, we had seven companies and I detected a credit card fraud because the credit card transactions were big. My experience was that internal staff were not responsible for reconciliation because the corporate office handled the reconciliation. The corporate office fell behind reconciliation in three months and one employee took advantage of the delay in reconciliation to perpetrate fraud. No accounting staff went behind the front desk and this occurred out of state. I was not there to notice. The front desk did not know of the policy because of frequent labor turnover. This person went into the credit card machine and charging a total of $25,000 over a period of one and half months so by the time the merchant accounts was received, I noticed a lot of transactions for refund-the same amounts was duplicated many times which was a mistake and made the fraudulent acts noticeable and also raised a red flag. The police were called to arrest the culprit. This happened because the corporate office was behind in reconciliation and the person took advantage to steal.

Moreover, a participant recounted as follows:

> My personal experience relates to an outside or third party getting into the system using bank wires transfers outside of organization. We discovered that and not keeping up with the job. and investigated it and proposed controls using check stubs, account numbers to fix the problem. That was the only instance relating to lapping, where the person in-charge was behind on-the-job. We helped the client out by increased segregation of duties and employed a new person because the control environment was poor. These were a few times but was due to the clients' part (we helped through the control environment and we helped organizations to improve their control environment, Liam).

According to Nathan:

> The fraud I identified was associated with fraudulent billing. It was a scheme where customers were overbilled and sometimes double billed if they did not check their accounts on consistent basis to ensure that they were not being billed for the same services they have already received. I reported the fraud to my immediate supervisor who elevated the situation to the client's management.

Consequently, Noah recounted as follows: "I have not personally discovered fraud but in some cases, some systems were not working well. If weaknesses existed, mitigating strategies are put in place and solutions given them. Some issues have been seen." Emily explained as follows:

> I really have not had any major fraud my way. In other departments, I heard something happened where a check was issued for $3,000 but the receipt which was for $535 and the person said he spent $3,535. Realized the person added the number "3" in front of it to get $3,535. I also heard people have taken computers

without authorization. Again, we had a manager who was put on the inventory-paying him a lot of money not knowing he was not selling. I have to report it (fraud) upwards. Once you are young, it might be gossips but as one gets higher on the ladder, you have to report to management. I would make sure there are procedures in place to ensure non-occurrence.

Jacob indicated as follows:

I don't have any experience personally in detected fraud but I have heard a couple of cases from my engagement team about fraud but I have not personally detected fraud. The first thing I will do is to bring any fraud I see to the attention of my team and if it happens to be fraud, management will be notified. I feel like it is my duty to do so. I believe that since we have the responsibility, I need to bring it to the attention of the team because it is ethical so to do.

Joshua recounted his experience as follows:

None of my work has led to fraud. The case is not to find fraud. In some of my engagements, we found fraud but it was at the lower level and we assessed that to see whether it will lead to a material occurrence. In one instance, we involved a fraud auditor to help us brainstorm. I believe the person was changing the results of inventory counts. We engaged the fraud expert and also held consultation in the National office as well as we considered our risk. It was actually related to reaching a threshold for a bonus but revenue recognition was delayed for purposes of obtaining bonuses. The one which involved bonuses at the high level of management is the one in which we involved fraud expert. Regarding inventory,

> we put in place controls as well as meeting the legal department. The company also did their own investigation. (Joshua).

Fraud education on-the-job. I asked participants to describe the fraud education they received on-the-job and a solid majority (83.3%) seemed to suggest that they receive much fraud education on- the-job for corporate fraud detection. I obtained consensus among the research participants. Included below are some of the direct quotes offered from the statements made by participants in this regard. Examples of the direct statements of the participants have been provided below: Noah affirmed**:** "I think... I gained education in the field through yearly training-teaching us fraud education such as how to uncover fraud with clients. General training and technology training to uncover fraud…fraud education helped me focus on deficiency and fraud". Another participant also added:

> Very, I have 30 years of experience with service organizations and 3 years with not-for profit organizations. So my experience when I was in the CPA firm doing…Reviewing the vouchers not having appropriate documentation. The CPA firms talked about fraud and ethics in monthly meetings by owners and co-owners using round table of experiences-How I experienced fraud others do not experience any fraud. I have been in a role some will never be part of fraud prevention. (Daniel).

Similarly, Edith stated:

> Adequate. We have spent a lot of time planning, using walk-through tests and CPE opportunity-beneficial. More of just go out there to get basic knowledge of what to look for. Sit down if client-if you identify anything such as red flag areas,

> perform more testing. More fraud discussion on high risk areas such as 30 minutes of history of client issues and so on.

Kerry responded:

> Likewise, I was trained to have an eye for fraudulent activities and always to have professional skepticism in performing audit. As part of professional organizations, I have learnt a lot on the job with time coupled with my training for certification as a CPA. There is CPE and regular training deployed by third party organizations.

Benjamin reported: "Most organizations have their internal systems for training newly recruited on-the-job. Managers and supervisors are the main conduits for training employees on-the-job. The training is based on regular continuous professional education and mentorship." Searching for alternative viewpoint is an integral part of the qualitative research process. For that reason, the disconfirming evidence of participants on the fraud education received on-the-job are reproduced in their specific statements as follows: "Simply inadequate." (Nathan); "…it might have been a seminar and they have taken us through CPE credits from different audit firms. Nothing specific but not much. The on-the-job fraud education was non-existent. The companies were all small companies. No continuous professional education." (Emily). Samantha responded: "I did not specifically take fraud education on-the-job. While on the job, I got to learn from experienced superiors who passed on knowledge. I had CPD courses that touched on bits…pieces, unless one is a fraud examiner."

Fraud education in college. Participants were asked to describe the fraud education they received while in college. Seventy-five percent seemed to suggest that

they did not receive much fraud education in their undergraduate accounting programs for corporate fraud detection. Examples of the direct statements of the participants have been provided below: Samantha stated emphatically: "None, my auditing classes did not have fraud education (fraud detection courses and forensic accounting topics)". Similarly, Nathan responded: "Virtually none, to be precise." Similarly, Noah affirmed**: "**So there was not a course on fraud education. There was a forensic course at the undergraduate elective. There was an elective in one senior class. Senior level class in auditing and other courses mentioned the importance of fraud, how to detect fraud, and fraud cases". Another participant also added:

> The accounting and auditing classes that were taken described how to look for fraud because it was assumed that there will be fraud. It was assumed that there might be fraud. They talk about Enron, and so on. It really opened my eyes because people commit fraud irrespective of the consequences, forgetting that they were going to be caught invariably (Daniel).

Similarly, Edith stated: "It was minimal. I would have wished for more. There was no fraud class except at the graduate level. We looked at the Enron…I did not know more but now I have the opportunity to know more". Elaborating on fraud education received in college, Emily stated: "Okay-any fraud education was at the undergraduate-in auditing, introduction to business administration, and business law. My graduate studies were based on how to communicate in business. It was not very strong. It also depends on the major-forensic accounting are taken". Jacob added: "I received an extensive knowledge in my auditing class. We looked at a bunch of cases to draw lessons. Actually some

auditors were involved in the cases. I have received considerable amount of education." Joshua added:

> To be honest, it was minimal. I think in my auditing class, we were taught about fraud with Enron and WorldCom. I am not sure it was enough. I thought that was enough background. No, it was not enough. What training helps to detect fraud is the one we get on-the-job. My firm has its own policies on fraud education (fraud detection courses and forensic accounting topics). It might not have fit into the policies of the firm.

Likewise, "I did receive considerable level of fraud education at my undergraduate studies but I guess that was not enough-with benefit of hindsight. I thought it was enough at the time. I …learn more on the subject to improve myself after college." (Kerry).

> Generally, from the experiences I have had, using my circumstances, my undergraduate education did not involve much fraud education regarding fraud detection courses and forensic accounting courses. I know for sure auditing as a course addressed little portions of fraud detection. That is all I can say for now. (Benjamin).

Searching for alternative evidence is part of the qualitative research process, as a result, the disconfirming evidence of participants who received enough fraud education in college is provided as their specific statements as follows: Liam elaborated:

> As part of main business classes using the case of Enron and WorldCom (big fraud cases) for all majors before the accounting classes started focusing on ethics, types of frauds, how frauds happen for a couple of days; how to identify and look for fraud. Later on, in my auditing class we went in-depth into issues of

> lapping schemes, cover ups, fraud triangle involving rationalization, opportunity, and incentive or pressure. In the internal auditing class, we went in-depth into each part of the fraud triangle and setting of control environment to be correct.

Other fraud detection education. I posed this question to research participants: (a) What other education around fraud education would you have liked to receive while in college? Most participants (Daniel, Jacob, Joshua, Liam, Nathan, Samantha, Edith, Benjamin, nah, and Emily) provided their views on a range of courses and topics such as: technology (Liam), computer science, forensic accounting (Emily), ethics, segregation of duties (Edith), detecting fraud at the corporate and governmental sector (Nathan), what to look for in auditing class (Samantha), what firms should have done regarding fraud detection based on case studies (Edith, Joshua, Kerry, Noah). Furthermore, identification of fraudulent activities, critical thinking and analysis, communication, criminal justice, fraud investigation and remediation (Kerry). Similarly, Daniel offered seminar approach as superior because practical-based teaching was beneficial than textbook approach. Jacob recounted:

> I feel I have gotten to the point where I have received at this stage. I feel I have enough at this stage but I- with time more could be added. Different scenarios have been pointed out to me to help me detect fraud" (Jacob).

Joshua offered:

> I think it would have been beneficial if fraud is focused from the perspective of the accounting firms. The focus was based on what the firms should have done. I think it would have been focused on fraud detection. The firm could have built upon what I learnt on-the-job. It might not have detected fraud better-but useful.

Kerry offered: “Intense level of knowledge in identifying fraudulent activities in the field. Critical thinking and analysis, communication, case studies around fraud, criminal justice, fraud investigation and remediation, and so on. This is my suggestion for improvement. I think so.” Even so, Liam emphasized:

> Technology. We go a lot into regular controls. Harder for accounting personnel to understand technology such as the role in control environment. A lot of fraud take place in new places. How access is controlled. If one does not have knowledge in technology it is a problem. Enron and WorldCom are big companies but note that we are exposed to smaller companies. So that something tailored to smaller corporations will be good because segregation of duties typically is problematic.

Elaborating on this theme, Nathan offered: “I would have like to have received some training on detecting fraud in general whether at the corporate level or in the governmental sector”. Likewise, Noah indicated: “Yes, if there was a specific course on fraud education on real-life case by case study on fraud. Client cases based on uncovered fraud will be very effective for students to master fraud instead of the course inclusiveness in auditing.” Other participants such as (Daniel, Edith, Samantha, Emily) also offered the statements below to provide their views: Some participants’ narratives are provided below:

> There were elective classes which were extension of auditing. I have them helpful but I find seminars very helpful. I find the practical experience as very beneficial instead of what the textbooks point to could be circumvented. For example, the journal of accountancy, a monthly magazine, talks about fraud and taking of fraud

> examinations. There is more than one answer so by reading it hits home because articles are written based on peoples' experiences (Daniel).

Edith also elaborated: "More of case study-based class to look at situations. Seeing how fraud will be occurring. I think ethics class can also be used. I will say in-depth into segregation of duties… I would have benefited from… than leaving college." Similarly, Samantha responded: "Future auditors should be taught what to look for when auditing clients. However, not all students will be auditors. Beyond that, I cannot figure out which specific fraud class to be taken in college as of now." Emily recounted:

> Now-keep in mind forensic accounting would have been nice to have in college. I am a puzzle person-I thought of working for FBI- a good person to catch fraud. I did not have my computer science class-the program would have been fun. Probably, double major would have been done at the time.

When participants were asked to tell their perception of fraud education in college. Majority of the participants (58.3%) indicated that fraud education they received from their undergraduate was insufficient when I asked them to give their perception of the sufficiency of the fraud education they received from their undergraduate programs. Almost all participants explained that the ethics they received in college was good.

(b) When I asked participants the question: What other education around fraud education would you have liked to receive on-the-job? The following participants offered insight into the other education around fraud education they would have liked to have been taught on-the-job and also went ahead to suggest way by which the suggested courses should be deployed: Daniel, Emily, Jacob, Joshua, Kerry, Benjamin, Noah, Samantha, Natalie, Nathan, Liam, and Edith. The participants offered their perspectives

as follows: Benjamin added: "On the job, I would say there should be a standardized training in auditing, ethics, fraud detection to prepare auditors in fraud detection…most of the training is not properly organized. So if training is structured it will be helpful..." Samantha added:

> On the job, may be more of case studies of potential risk factors, what to look for, a handful of things. Segregation of duties is the biggest thing-making sure starting auditors understand that-PowerPoints and IT understanding will also be beneficial because the perpetrators use IT. So we need to understand how the system is set up- I think.

Emily elaborated:

> For me I guess-forensic accounting-it sounds like it will be interesting-to learn techniques I am not aware of. Probably my graduate major went outside of accounting. Training somebody how to read the general ledger, taking physical inventory, and keeping intact. Education for the administrative staff because a lot of times, they do not understand issues. A lot of courses in basic accounting because they are responsible for a lot of the assets of the organization. A better understanding of what the accountants do because better educated people will not steal and do bad things. Some people will like to beat the system."

Samantha reported: "A day-long CPE classes on detection for external auditors using cash disbursement, journal vouchers, cash receipts, financial statements fraud, and background of how fraud is committed." Similarly, Nathan added: "I would have preferred to have taken on-the-job training that dealt with fraud in general and not just detecting corporate fraud." Likewise, "Learn more about fraud prevention before it takes

place. Ability to ask important questions and not taking things at face value. I think more of forensic skills and legal aspects will be good as well. Case-based scenarios will be helpful." (Kerry). Noah added: "I would say more specific cases than broader systems. Differences may lay within certain industries rather than broader clients. In my case of IT audit from the IT standpoint." Liam offered:

> Probably a discussion about current frauds to be on the lookout for such as meeting to discuss overall financial climate. I started out in 2009 when emphasis from the economy put pressure on firms. An update will be good such as popular fraud coming up because it is always good to be refreshed on what to look for in order to do a better job as a firm.

Natalie said: "Forensics, governmental and how they affect corporate stakeholders, ethics update, CPE requirement; CPA, CFE, etc. professional education." Jacob also reported:

> Specifically, I will say-give me the scenario on how to respond to the scenarios and to do appropriate responses. It is best preparation to help detect fraud even if I don't find one. Some sort of fraud management and issues management. We do have forensic department. A class involved in fraud detection and giving you different examples."

Joshua elaborated: "I can't think of anything now but the firms bring more such as data analytics, stratification of data; rather than selecting invoices. Narrowing, rather than establishing the significant risks." Daniel offered:

> I would have liked to get- together into audit clubs and ethics clubs, by instructors putting together an auditing club or ethics club using posters for people to join

> instead of establishing other clubs in schools. These clubs can talk about fraud compliance and ethics in general because by working with peers, networking groups will be formed. It will be effective nonetheless-adding more knowledge in addition to what is known-thinking beyond the box will be another avenue given because people use intelligence for the worst things instead of for good.

The participants seemed to suggest the inclusion of the following specific courses and topics on fraud education to be offered on-the-job. First, inclusion of auditing, ethics, fraud detection (Benjamin, Natalie, Nathan), potential risk factors, what to look for, segregation of duties, I.T (Noah, Samantha), forensic accounting, general ledger, inventory (Emily, Kerry, Natalie), cash receipts and disbursement, journal vouchers, financial statements fraud, and how fraud is committed (Samantha). Second, fraud prevention, asking important questions, legal aspects of fraud (Kerry), current trends on fraud, financial climate, and update on the economy and fraud (Liam). Third, fraud in government sector (Natalie), financial management, issue management (Jacob), data analytics, and stratification of data instead of the selection of invoices to establish risks (Joshua).

The following approaches of deployment of the suggested fraud education to be offered on-the-job include the following: training to be structured as a class to make it helpful (Benjamin, Jacob), the use of PowerPoints presentations (Samantha). Emily suggested the education of administrative staff in the process and using CPE classes (Samantha), the application of case-based scenarios on how to respond to fraud (Jacob, Kerry). Noah appeared to suggest the application of case-based instead of broad systems and a focus on industry instead of broad systems. Natalie seemed to suggest the

utilization of CPE requirement for professional education. The introduction of audit and ethics clubs were suggested by Daniel as a way for accounting educators to use to form a peer and networking group of accounting students to talk about fraud compliance and ethics in general. On the whole, all participants appeared to be satisfied with the education on doing what is right they received on-the-job. While the university ethics training were either standalone course or integral part of existing courses such as auditing. The on-the-job ethics training took the form of in-house training, CPE, and third party training sessions.

Three themes and two sub-themes emerged from the responses of participants from my second research question, as follows: first, the major themes were expected competencies, fraud detection and mitigating strategies, and overall assessment of fraud education in college; and second, the sub-themes were helpfulness of perceived competencies and other fraud detection competencies. The sub-themes are discussed under the main themes as presented in Table 7 below:

Fraud detection responsibility. I asked the participant to tell me their perspectives of the detection of corporate fraud in practice and I found that on the whole, the general consensus from all the participants was that fraud detection was the responsibility of management. Most participants (75%) seemed to recognize the auditors' role of providing credibility to the financial reporting process. Some statements from them are provided below to better emphasize this theme. For example, Jacob said:

> I am an external auditor-my role is to set up procedures to detect fraud. I am to ensure that everything is in order. The duty of fraud detection is to provide assurance of material misstatement. It is some overall collective efforts from

> management, internal auditors, and everybody. We play key role as far as detection of fraud is concerned.

Liam recounted his perspectives as follows:

> As an external auditor and CPA, my responsibility is to provide opinion on the financial statements. If a material misstatement is detected, I would want to really get an understanding of the control environment to determine whether a fraud exist. If financial statement fraud exists; we bring it to the fore by informing appropriate personnel. It is our responsibility to not to directly detect fraud but if there is a material misstatement, the control environment is brought to an acceptable level (we ensure that the control environment is acceptable such that fraud will be prevented).

Another participant (Samantha) also recounted as follows:

> It is pretty important because clients expect us to detect fraud but it is not our responsibility. There could be collusion among employees thereby making fraud detection difficult. As auditors, we stipulate in our engagement letters that fraud detection is not our duty, however, we plan and prepare our audits to bring out any material misstatements. When that happens we inform *management.*

Again, Noah explained:

> My role as far as my position is to detect fraud. I perform the testing by going through samples and asking questions. I approach my managers and supervisors of any findings regarding fraud. Then we put in place mitigating controls to address any inconsistencies in a conversation with the *client.*

As a result, Natalie stated: "We have basic accounting. Basic GAAP concept. I think it is accountable for what we look for. Fraud detection is a responsibility." and Nathan summed up his views as follows: "I believe that it is every auditor's responsibility to detect fraud. It is my responsibility to detect corporate fraud in my organization." This view was validated by Joshua who stated:

> Well, professionally, our responsibility is to provide reasonable assurance that there are no material misstatements and that the financial statements are not wrongly stated. Fraud is a smaller portion of what we do. If the financial statements contain fraud, it is a significant fraud usually caused by management override of controls. (Joshua).

Furthermore, Emily indicated as follows:

> My responsibility is to assign specific responsibilities to make sure that everyone knows what one other person does. I use a checklist. I use emails and reconciliations. I should be …but it is my responsibility to detect fraud by putting systems in place to ensure that fraud can be detected. To detect missing items. Yes, overall, Yes. The size of the company is key and also ensuring that inventory system is in place through the use of laptops, IPad, and inventory tags. The IT person ensures…it is more of policies and procedures

Another participant (Jacob) stated: "So my personal responsibility is to make sure that the company is not doing anything fishy. Try to make sure that anything is not going wrong…you point it out. As auditors we do have some responsibility to detect fraud." (Jacob). On his part Kerry said:

> It is my duty to detect fraud if it exists and make every effort to root it out. The duty to prevent fraud is for management and as auditors we have to find fraud if one existed through the audit procedures and processes aimed at finding material misstatements in the financial statements. My duty is to give opinion on the financial statements.

However, one of the participants made a particular emphatic point, which seems to tally well with what most of the participants seemed to tell. That point is exemplified in the following statement: "My responsibility- the big one-exercising professional skepticism ingrained in my training in all aspects of the job such as analytical procedures and whatever we do. Of course management biases are of utmost importance." (Joshua).

Education on doing what is right. I asked participants to provide their perspectives on education on doing what is right (ethics education) they received: (a) in college and a majority (58.3%) appeared to suggest the ethics education they received in college was adequate. Some of the participants' narratives focusing on the theme of ethics education in college are shown below: "Very strong, very objective in addition to actual experience. I felt there was very strong ethics given to us to be professionals. I look at it as a professional-ethical." (Daniel). Edith also offered: "I feel ethics was good. We had a full ethics class-a full semester-3 credit hour. I feel more adequate training and knowledge." Emily stated: "Yes- I pretty much had it in business school. They laid a lot of emphasis. It also depends on how you are raised is key-morale compass. I don't think it was Ethics-It was a chapter -about 30 years ago." Jacob also elaborated: "I think I received a very good amount of education on ethics (education on doing what is right). I think I have been taught very well in ethical values in school". It was able to aid me to

look for whether employees have the opportunities and whether pressure also exist for them to engage in fraudulent activities. I think I received a fair amount of ethics education in my undergraduate studies." (Kerry). On his part Liam had this to say:

> With ethics, we went over the basics. It was brief but present in a lot of classes. It is a tough topic because it is difficult to be ethical. More of joining and highlighting how to be a good person was what we were taught. We spent a lot of time on it (We covered ethics in our main business classes, in-depth in auditing class, and in an elective auditing class)."

Similarly, Noah added:

> I think the training was good. There were two courses on business ethics which were required which touched on appropriate behavior, there were book readings on ethics such as what to do? And what not to do? My education on ethics was extremely good because teachers emphasized ethics. They were standalone courses and also in auditing courses of one chapter in the course.

Searching for alternative evidence is part of the qualitative research process, as a result, the disconfirming evidence produced by some participants is reproduced as follows: Nathan summed up his perspective as: "It was discrete, sporadic, and scanty. Basically, insufficient." Joshua offered: "Similarly, there was minimal low level. I guess it was one credit hour course. It was minimal, ethics class was very, very minimal." Kerry stated:

> I think at that undergraduate level it was satisfactory but having entered the work force I realized that it was not intensely enough. More would have been better to adequately prepare students before they enter the world of work. I think more

> fraud detection courses and forensic accounting topics will be needed by accounting students leaving universities across the country.

Samantha also added: "None, my auditing classes did not have ethics education in the undergraduate studies." Benjamin emphasized: "It is about the same. There was no ethics education in my undergraduate educational experience. I know for sure that ethics was mentioned in my auditing course, if my memory serves me right." (b) I asked participants to provide their perspectives on the ethics education they received on-the-job and most of the participants (83.3%) seemed to suggest the ethics education they received on-the-job was adequate. Some of the participants' statements on the adequacy of ethics education on-the-job are elaborated below: Benjamin explained: "This is similar to the first (previous) one. Most employers have their own manuals to address auditing issues relating to ethics. This could be regular professional education and departmental training sessions." (Benjamin). Nathan added: "Sufficient because every year, my employer requires all employees to take an ethics course." Likewise, Kerry added: "Very important because it is a necessary tool to prevent fraudulent practices. I guess it added much emphasis to what I studied at school. Ethical education is critical for auditors in practice." Noah reported:

> That was heavily done. We are required to take ethics compliance within the company and the client to follow practices of the firm. Internally and externally with different managers emphasizing that for everything to pass. It is done at the tone at the top. Partners to directors to managers and so on. Planning and development department deploy courses in ethics.

Edith elaborated: “Very good as well but it depends on the person. It is pushed home to be ethical-integrity. I remember a guy coming to take us through ethics education. The CPA examinations ensured competence-very important.” Samantha said: “It is good because the state of Illinois required ethics for the renewal of licenses for CPAS. So ethics education has been good on the job.” Daniel emphasized:

> I think it was very strong because of the practical experience but not as strong as the classes I took at graduate school but it was part of auditing in the undergraduate studies. Auditing II had it but not in Auditing I because auditing II was more detailed. The undergraduate was not detailed, I graduated back in 1982 for my undergraduate.

Again, looking for disconfirming evidence is part of the qualitative research process, as a result, the evidence adduced by some participants is provided as follows: Emily reported: “Well. We have ethics indirectly through personnel policies, related parties’ transactions, school policies. No seminar. No CPEs.”

The three major themes that emerged from research question two were as follows: fraud detection and mitigation strategies, expected competencies, and overall assessment of fraud education in college (see Table 7). Two minor themes under research question 2 include: helpfulness of perceived competencies and other fraud detection competencies, as per Table 5. The sub-themes are discussed under the major themes.

> **Q2**. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?

Table 7 *Themes Describing Competencies of Accounting students*			
RQ 2	**Q2**. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?		
Themes (3)	Fraud detection and mitigating strategies	Expected competencies	Overall assessment of fraud education in college

Fraud detection and mitigating strategies. I asked participants their perception of the strategies for detecting corporate fraud in practice and they seemed to suggest a number of strategies that can be used by external auditors to detect corporate fraud. Examples of their direct statements are provided, as follows:

> Having a strong handbook so that people will realize what is okay and what is not okay-to become acceptable practice. Having orientation of the expectation of the job and the role as well as contributions that are expected. Having financial policies and procedures manual. For example, once deposit is made by one staff, another staff should be made to reconcile. Segregation of duties and signing off that it has been read. Another big one is professional skepticism. Making sure bank reconciliation is done and reviewed and making sure that blank checks are not opened and there should be logs for checks. Also making sure that there is more compliance. Petty cash is being signed off, and also doing sample testing of checks in the amounts in excess of $10,000. As well as management signing off on it (Daniel).

Likewise, Natalie reported: "Knowing the basic accounting. Knowledge such as consequences of fraud. Updates to SOX, etc. Should have ethical mindset. Loyalty is also good." Noah also added:

> Through the testing-substantial and control testing. From my perspective, testing company systems and accessing information and impact on the financial systems. Segregation of access testing, systems security access design-appropriate that the most testing we do in my department. Possibly meeting and inquiring with clients to gain understanding of different things within the company to allow for people to detect fraud. Conversations with management-that is the general way of detecting fraud. Following to see and gaining and testing the understanding.

Likewise, Samantha reported: "Test of internal controls, disbursement controls, financial analysis including ratios, and analytical procedures through comparison of prior period to current balances (mitigating strategies)." "Strategies will include professional skepticism, internal control evaluation, nature of management (tone at the top), computer auditing and so on." (Benjamin). Kerry emphasized*:*

> Always have a professional skepticism and at audit planning sessions talk extensively with leaders and employees alike about fraud to gauge their understanding of it and how seriously they take it. I think professional skepticism is the main and big issue. A better strategy to handle fraud at all levels of the organization. Corporate fraud detection is based on professional skepticism as professional skepticism also helps in fraud detection.

Nathan said: "More training both on-the-job and in college is needed for accounting students in college and those who are already practicing on-the-job**."** Commenting on this theme, Liam added:

> Definitely we meet as a general team with the partner on-the-job to plan to detect potential fraud. We talk about new vendors. A lot of brainstorming sessions. In

> the field, we use walk-through tests, control environment, risk of material misstatements, control deficiencies. Audit program to bring risk to appropriate level. How the processes are working to spot fraud and to develop audit procedures. Use interviews of responsible people for areas such as analysis of accounts, inquiries of variance, ratios and aspects of things that are potential areas (Liam).

Edith added:

> Like we do internal controls walk-throughs to make sure systems are working-random tests of new vendors or take a list of vendors to check for existence-we do random test of 5 to 10 employees to verify payroll with human resource. Credit card checks, selected expense to establish proper business expenses. On financial statements, we do substantive testing of material balances, account receivable and bank accounts to ensure accuracy, third party issues. Inventory and investment are reasonably stated. Assets and revenues, a lot of cutoff into ensure transactions are properly stated in relevant period.

Emily added: "Again, segregation of duties-cash accounting, spreadsheets reviews, balance sheet reviews, checks and balances, cash and reconciliation on odd numbers." Jacob offered this insight:

> To detect fraud, professional skepticism is key. The second thing will be putting unpredictable procedures because if the procedures become predictable it defeats its purpose. Again, speak out when you see something wrong. I would say-different techniques such as eye contacts-I mean fraud detection skills. It comes back to the education in fraud detection (education) in general (Jacob).

> I mean-fraud discussion such as getting to know everybody's point of view. There are the actual procedures where various members of the organization discuss test of controls, fraud enquiries. It is ingrained. The key part of our audit framework. We work with the internal audit function as well. Training, using framework, meetings, checks and balances. We fill out forms as checklists on the fraud section before review by partners then audit reports are issued. Engagement Quality Control is used to review working papers, procedures and address management biases and override of every engagement (Joshua).

Likewise, Noah reported:

> Most broad ones. Planning test depending on industry. Plan adequate test to detect from the knowledge of the…Within the planning phase of the audit based on conversation with client to uncover instances of fraud-anything that gives ability to commit fraud-understanding competencies of employees, and integrity of management and accountants.

The study participants seemed to proffer the following recommendations as their perception of the strategies that could be utilized for detecting corporate fraud. Each of the research participants seemed to have provided insights into the strategies for detecting corporate fraud. The following strategies were offered by participants: *One*, strong handbook, orientation on expectations of the job, financial policies and procedure manual, bank reconciliation statement preparation and cash (Edith, Daniel), logs for blank checks, signing off on petty cash, compliance, sample test of checks in excess of $10,000 (Daniel), basic accounting, consequences of fraud, updates on SOX, ethical mindset, loyalty (Natalie), substantive and control testing (Joshua, Liam, Noah,

Samantha), testing corporate systems, segregation of duties, systems security access design, meeting and inquiring with clients, conversation with management (Noah). *Two*, disbursement controls, financial analysis, ratios (Liam, Samantha), analytical procedure (APs), variance analysis (Samantha), professional skepticism (Benjamin, Jacob, Kerry), internal controls including control environment and deficiencies (Benjamin, Edith, Liam) evaluation, nature of management or tone at the top, and computer auditing (Benjamin). *Three*, audit planning, fraud detection (Kerry), more training in college and on-the-job (Nathan), brainstorming sessions, use of interviews, analysis of accounts, inquiries of variance (Liam); random tests of vendors, 5-10 employees with human resource department, inventory and investment, and cutoff for revenue and assets reviews, checks and balances (Edith*).* *Four*, building unpredictable procedures, speaking out, eye contacts, fraud detection skills (Jacob), planning tests for specific industries, understanding employees' competencies, and integrity of management including accountants (Noah). Lastly, Joshua offered the following strategies: fraud discussions, financial inquiries, auditing framework, working with internal auditing, training, meetings, filling out a form of checklist on fraud section before partner review of audit report, and Engagement Quality Controls, test and balances (Joshua).

I posed the question: what strategies could be used to detect corporate fraud? Participants appeared to suggest a number of strategies for detecting corporate fraud. Below are some of the direct quotes by participants to elaborate on this theme: Daniel reported:

> Logic and common sense coupled with the background. Segregation of duties and thinking of –asking questions about controls- *You have to make the best lemonade*

> *of the lemons*- You have given the keys to fraud once the procedures are flouted. There should be timely reconciliation and timely financial reports. Transactions done over weekends and holidays should be scrutinized because there is nobody in the office. Look for who did what especially during holidays and weekends. There should be changes in passwords and it applies to online banking. It becomes a pain and distraction-Ask yourself: If I were to commit fraud-what will do?"

Nathan said: "Training, more education, and incentives or rewards to detecting fraud." Similarly, Natalie reported: "I perceive that research, updates of accounting, quarterly certification by financial managers, internal controls, rules and regulations update, etc." Samantha offered: "…Fraud can be detected using any of the following: analytical procedures, ratios, financial analysis, and test of controls." Kerry reported: "Spontaneous reassignment of duties, monitoring stale items in reconciliations, and employee overtime-these are just but a few of the strategies but if engagement teams conduct regular brainstorming sessions, more strategies will emerge to guide the team." Edith reported: "I think those random tests are very good. We change them every year on what to cover. The main issue is covering all material levels to gain confidence level that major fraud is not occurring. That is it-OK." Liam reported:

> An example, having key person not going on vacation such as mandatory vacation to allow someone come to do their job while they are gone. Look at access to certain items such as wire transfers authorization, setup in vendors, review of journal vouchers, a lot of control environment, segregation of duties, recording capabilities. Overview of control environment to detect fraud.

Emily offered:

> Segregation of duties. The same thing. People should be made to take vacation for others to do their work. Keep everybody in the picture. If everybody is on the same page, copying people about email in the department to act as a check on ourselves." Elaborating on this theme.

Jacob reported:

> I guess we put in place detailed procedures to detect fishy transactions. For example, if the bank reconciliation is off by a certain amount. Always talk to legal counsel and internal auditors, if you come across any fraud. That is a great strategy to bring issues out of the ordinary. In planning engagements, steps to help to detect fraud and to be aware of existence of fraud.

Benjamin added: "This is quite similar to the previous question. The situation is dependent on internal controls, top management, professional skepticism could be used to detect corporate fraud." Joshua recounted: "I mean, all the stuff I mentioned. Stratification of data such as daily sales-looking at data in different ways through testing of journal entries to see factors of audit interest. It is all the sort of things we do."

The participants offered the following suggestions as specific strategies for detecting corporate fraud: first, segregation of duties (Daniel, Emily, Liam), compliance, timely financial reporting, timely reconciliation, asking question about controls, scrutiny of transactions performed in the night, weekend, and holidays; changes to passwords in online banking (Daniel), training, incentives, and rewards for detecting fraud (Nathan), research, update on accounting, quarterly certification by financial managers, internal control, rules and regulation updates (Natalie). Next, analytical procedures (APs), ratios,

financial analysis, test of controls (Samantha), spontaneous re-assignment of duties, monitoring stale items in reconciliations, employee overtime, and conducting regular brainstorming sessions (Kerry). Next, random tests (Edith), key people not going on mandatory vacation (Emily, Liam), review of wire transfers authorization, set-up of vendors, review of journal vouchers (Joshua, Liam), control environment, and recording capabilities (Liam). Finally, detailed procedure to detect fraud, consulting legal counsel, making use of the internal auditing department (Jacob), internal controls (Benjamin), and stratification of data (Joshua), and conducting regular brainstorming sessions (Kerry). Next, random tests (Edith), key people not going on mandatory vacation (Emily, Liam), review of wire transfers authorization, set-up of vendors, review of journal vouchers (Joshua, Liam), control environment, and recording capabilities (Liam). Finally, detailed procedure to detect fraud, consulting legal counsel, making use of the internal auditing department (Jacob), internal controls (Benjamin), and stratification of data (Joshua).

Expected competencies. I asked participants to describe the expected competencies of undergraduate accounting students for corporate fraud detection. The statements below summarize the views of the participants: Noah stated:

> OK. I believe you are expected to have a general knowledge on fraud detection. I believe you should be able to detect fraud situation. Questioning mind to pose serious questions regarding a situation. A general understanding will be good. Knowledge will come with experience. If you are coming in as a manager, you are supposed to be able to detect fraud but coming out of school-should not be able to detect but general education in (fraud education) will be good.

Nathan summed up his perspective as:

> I expect undergraduate accounting students to have some basic knowledge in detecting fraud". Similarly, Joshua added: "I will expert that knowledge of the big picture of fraud which has taken place in the past. My expectation is minimal. Within our framework, we have procedures to take newly-engaged persons to follow. They have to be trained on-the-job. I see 90% of what we do on the job. So a framework of what we do is good.

Edith offered: "I expect undergraduate accounting students to know fraud triangle, proper segregation of duties, know that material transactions that have occurred to be brought up for further investigation. Professional skepticism, professional judgment in analysis of transactions, and gaining understanding of issues."

Daniel explained:

> So I think strategic thinking, forward thinking, due diligence, organizational insight regarding players and roles, passion to do the right thing regardless of consequences; should come from auditing background because they are trained to think that way, questioning mind, patience to look further and deeper into the root to unearth if there is anything, looking for operational deficiencies with a view to recommending changes, someone you will get the sense that the people of integrity who upholds the highest level of integrity-feeling.

Liam offered:

> They are expected to be professionals, ethical, understand the basic types of fraud and what to look for. To maintain professional skepticism. It is easy for new entrants to get assurances but need to know what to do if they come across something. They should not go under the bridge because it is better to be wrong

> than to think they are not competent. The key areas include: how balances relate to one another and cash is the biggest fraud risk. Not being persuaded by clients because of old associations. There is no incentive to meet expectations of stakeholders so it is important to look for clients' incentives using professional skepticism with an open mind and not to make a big deal out of what one finds.

Conversely, other participant accepted responsibility for fraud detection but admitted that their undergraduate studies did not cover fraud education. For example, Benjamin reported:

> Generally, from the experiences I have had, using my circumstances, my undergraduate education did not involve much fraud education regarding fraud detection courses and forensic accounting courses. I know for sure auditing as a course addressed little portions of fraud detection. That is all I can say for now.

Another external auditor did not seem to perceive the significant issue of fraud detection to be a responsibility of an auditor as provided in the statement: "I think it is reasonable because of several reasons provided earlier. We are not expected to detect fraud… reasonable. I think they should be learning on-the-job to gain more experience. My story will be vice versa." (Jacob). Elaborating on the inadequacy of the expected competencies at the undergraduate level, Samantha elaborated: "I don't think the competencies should be at the level it should. May be things have changed now but during my time there was nothing at all (The accounting students do not have the competencies required for fraud detection)."

By way of analysis, a majority of participants (75%) seemed to put a lower expectation of accounting students in detecting corporate fraud. The study participants

seemed to imply that a basic knowledge in fraud education is all that undergraduate accounting students should bring into employment in auditing. According to these participants, the best teacher is experience on-the-job. For example, some participants (Benjamin, Jacob, Samantha) seemed to have different viewpoint because while Benjamin appeared to admit that no competencies were brought from the undergraduate accounting education, Jacob tendered to favor the position that fraud detection was not the responsibility of the accounting student, but Samantha appeared to recognize a lower expectation of competencies from the undergraduate accounting students. Many participants (Jacob, Joshua, Nathan, Noah, Samantha) also seemed to suggest that accounting students from the undergraduate level are expected to just have general knowledge about corporate fraud detection based on the general understanding of business, and have a questioning mindset to pose serious questions. According to these participants, knowledge of corporate fraud detection comes with experience because 90% of what auditors do in the field will be fraud detection. However, if a person is entering the job market as a manager, then such a person should be able to detect corporate fraud.

Contrarily, three participants (Edith, Daniel, Liam) seemed to suggest specific competencies for undergraduate accounting students in detection of corporate fraud because no fraud education is not good either for the accounting students. First, Edith appeared to suggest the following competencies for undergraduate accounting students for fraud detection: fraud triangle, segregation of duties, selection of material transactions for investigation, professional skepticism and judgment, and gaining understanding of issues. Second, Daniel on his part suggested the followings competencies for undergraduate accounting students: strategic thinking, forward thinking, due diligence,

organizational insight, passion to do the right thing, auditing background, questioning mindset, patience, and operational deficiencies, and people of integrity. Liam also offered, the following competencies: accounting students should be ethical, expected to be professionals, know basic fraud types, know what to look for, and demonstrate professional skepticism. Consequently, the key areas should be focused on how balances relate to each other, cash as fraud risk, and auditors should not be persuaded by clients (Liam).

Overall assessment of fraud education in college.

On the question of how helpful their undergraduate fraud education has been in their auditing practice in detecting corporate fraud, all but five participants seemed to indicate that their undergraduate accounting fraud education was not helpful at all. I asked participants to give an overall assessment of the fraud education (fraud detection courses and forensic accounting topics) they received in college and majority (58.3%) appeared to suggest that the fraud education they received in their undergraduate accounting programs was insufficient. Examples of the specific statements made by the participants are reproduced below: "Insufficient" (Nathan); "Insufficient. I did not receive fraud education (fraud detection courses and forensic accounting topics) in college (Samantha)"; "My experience was a low level of sufficiency. Probably, because I graduated long time ago. However, fraud and ethics can never be adequate because it should be the highest. I looked at probabilities and possibilities." (Daniel). Edith also said:

> It was enough to give me basic understanding but more in-depth study will be beneficial to all accounting students instead of only going over Enron, and so on.

> For beneficial purposes-I don't think anyone-if you take cognizance of what is taught-you would not put any audit firm in jeopardy because if the firm misses a major fraud-substantial lawsuit awaits the firm, however, other stakeholders (users of financial statements) are just as important as the CPA firm.

Kerry stated:

> Not sufficient. I am saying so because after several years of work I have come to realize that the undergraduate fraud training was not enough-but I should hasten to add that it was good for beginners. Probably, I would not have understood it at the time as I do now. I would wish that accounting students will strive to pursue professional and academic education above the undergraduate level to provide the required assurances.

According to Noah,

> It was not sufficient from my perspective. There could have been more fraud education. A course to help students more would be having been good- but could be improved. Those presented with broad and also elective. A mandatory course will be good-very good-important part of auditors' job. Technology standpoint of fraud education.

Benjamin also reiterated: "Not sufficient at the undergraduate education level. This could have been better. There is the need to enhance fraud education at the undergraduate level. The coverage in auditing class was woefully inadequate."

However, the direct statements of the following participants representing (41.7%) seemed to shed light on the issue (Emily, Jacob, Joshua, Liam, and Natalie) and their respective quotes indicated that the fraud education they received in their undergraduate

accounting programs was sufficient for corporate fraud detection at the time. The specific narration of this view is reproduced as follows:

> Well-for me, I felt it was sufficient at the time, but we probably need to be updated. It is possible it has improved. I thought it was sufficient at the time. I can't say that was enough-we got better training on-the-job. The courses give foundation and internship is good to equip students (Emily).

Jacob also said: "Very sufficient. We always talked about …to react well to real-world situations-pretty good." Joshua also stated as follows:

> I think it was fine but it could have been beneficial. Firms' approach of ingraining into their training such that it could be put into the contest of auditing firms. If you are an auditor, it should be engrained. You should be able to conceptualize on what to do instead of just fraud through plans and procedures application is key. Professional judgment-we are paid to exercise professional judgment.

Liam said:

> It is pretty sufficient. I think there is room for improvement. A whole course should be designed at the undergraduate level. Right now the course is at the graduate level. A lot of courses talk about fraud but I don't know whether they are far enough to detect fraud.

Natalie also said the fraud education received in college was adequate: "It was sufficient but it could have been more. With benefit of hindsight, we could have gotten more, but when we received then, we taught we had more. Fraud cases necessitates…knowledge in fraud detection courses and forensic accounting topics."

Helpfulness of perceived competencies. I asked participants to explain how helpful they perceived these expected competencies might be in undergraduate accounting majors in preparing them to detect corporate fraud; except for two participants (Nathan, Noah), a majority (75%) seemed to have the perception that the expected competencies were not helpful for accounting students to detect fraud after graduation. The participants appeared to suggest that no amount of classroom education on fraud detection would be adequate to prepare accounting students to detect corporate fraud in practice. As a result, on-the-job experience was critical to corporate fraud detection. Consequently, they had a low expectation of accounting students in the detection of fraud. I have reproduced below some of the participants' narratives: "I think they will be helpful from day one…have the exact mindset to ask appropriate questions to establish weaknesses to strengthen the system. As opposed to others who would always be asking what should I do today…" (Daniel). According to Edith: "They are trained to have a basic understanding. I gained more understanding before I joined the firm. Talking to my peers-they all have at least some education on fraud. I feel that the training is adequate-I feel so." Benjamin responded: "It was not adequate as I said before, in auditing course a little portion was addressed but that was not enough for external audit experience to detect corporate fraud." Jacob elaborated:

> I perceive they don't have much expectations at all. The expectations are pretty low that is why training is not offered for us. When we come out of college. Technology is becoming advanced so it is easy to find fraud now unless there is management override of controls.

Benjamin added: "It is about the same. There was no ethics education in my undergraduate educational experience. I know for sure that ethics was mentioned in my auditing course, if my memory serves me right." Liam reported: "Definitely professional skepticism because without it you cannot be a good auditor- Same as above- May be more role in planning professional activity depicting *real-world* situation in the classroom (real world scenario may be enacted in the classroom setting)." Joshua explained: "On-the-job training will help the person to detect corporate fraud. We involve all levels. Not only managers but everybody is involved. Those absent are sent details of the training once they are on the team." Samantha replied: "Not helpful. Many courses were not offered because fraud lessons such as internal controls and financial statements were not taught in the undergraduate programs."

The process of qualitative research involves seeking for dissimilar evidence. The direct quotes of participants, who provided alternative viewpoint to my question, are as follows: "Very helpful because it will give them some baseline knowledge in detecting fraud" (Nathan)**.** Noah added: "It is very helpful. It is the foundation to apply knowledge. They may lie within accounting and auditing. Companies expect accounting students to have the general understanding to get experience on-the-job to perform procedures to detect fraud."

Other fraud detection competencies. I asked the participants to provide other competencies they thought accounting students should possess in detecting corporate fraud. I obtained consensus (75%) from participants on the diverse skills needed by accounting students to detect corporate fraud. All participants offered their perspectives on the other competencies accounting students should possess from school. Some of the

narratives of participants are provided below to better contextualize this theme. For that reason, the statements they provided are detailed below: Nathan said: "They should also have some knowledge in forensic accounting**."** Jacob emphasized: "As far as fraud detection is concerned, having overall idea of fraud detection. Basic knowledge is pretty enough. I think you have to have issues management skills, problem-solver, and to be a peoples' person." Similarly, Daniel explained:

> I would want them to possess probably strategic planning skills because that will allow for different areas within the organization that things might pop out-weaknesses will come out. For example, non-accounting staff may not be looking for-as opposed to people with accounting knowledge who will probe into issues. Somebody with trained mindset to look for what will go wrong such as how people circumvent and beat the system.

Likewise, Edith added:

> The question in mind-obvious irregularities, professional judgment is key. Making sure you understand the entity. Overstated sales and assets and things like that. High risk. Personally, we do risk assessment in each engagement. We have a spreadsheet of checklist which all associate auditors are required to apply to all engagements. Understanding risks is the main competencies people should possess in detecting corporate fraud.

Furthermore, Emily suggested: "It goes back to having a class on forensic accounting in specific courses. I guess there is a lot more I can learn today than 30 years ago. Critical thinking will be good to include research, analysis, and negotiation." Benjamin reported: "…the incorporation of computer-aided auditing courses into the undergraduate

curriculum. Ethics, forensic audits could be incorporated into college education. Fraud audits are also worth considering in college education for accounting students to help them detect fraud when they leave school." Samantha suggested: "The following competencies are necessary for detecting corporate fraud: analytical skills, ability to think deeper, experience, problem-solving, and education on fraud (fraud detection courses and forensic accounting topics)." Liam also added: "Definitely need to understand general accounting systems and how they operate. Know how money goes out of the company. Know stakeholders' structure. Interview skills are required to understand transaction cycles and demeanors to know how bad situations are. Something." Kerry added: "Learning about forensics analysis, technology, fraud prevention methods, security risks, fraud detection methods, and behavioral science, and finance. The list goes on." Natalie responded: "IT, business management, financial analysis and data, obeying rules and regulations in specific industries."

Elaborating on this point, one participant stated:

> More traits than competencies. Accounting is not just mathematics but application of principles. I expect hard work. The procedures are prescribed. Probably, inquisitiveness, some levels of experience, depending upon how a person explains what he did in the people, knowledge of the firm, and level of involvement. Because there is much training available. We only need people who are ready to work. The *Big 4* accounting firms train staff. The reason that I look for trait is to determine what that person can do because being able to implement policies by staff is a different thing, once the understanding of accounting is there, it is good to go (Joshua).

Noah also added:

> I would say not just we learnt soft skills and how to solve problems. I believe our education should be geared towards specific knowledge and not general knowledge. The students should be allowed to choose specific industry knowledge. Specialized industry knowledge and seeing examples in real-life duties. Segregation of duties, authorization, and more specialized knowledge in manufacturing, pharmaceutical industries. Technology knowledge for accounting is good for accountants because of automation of processes.

By way of analysis, most of the participants (75%) seemed to suggest that a lot of diverse competencies are needed to facilitate the detection of corporate fraud in practice. The skills that were captured as the other competencies that accounting students should possess in detecting corporate fraud, revolved around the following: first, forensic accounting and audit (Benjamin, Emily, Jacob, Nathan, Samantha), issues management, problem-solving, peoples' person (Jacob), strategic planning, trained mindset to look for things that go wrong (Daniel), professional judgment, understanding the entity, overstated sales and assets, spreadsheets on checklists, and understanding risks (Edith). Second, critical thinking (Emily, Samantha), research and analysis, negotiation (Emily), computer-aided auditing courses, ethics (Benjamin), ability to think deep, experience, problem-solving (Noah, Samantha). Third, Liam also suggested: general accounting systems, how money goes out of the company, stakeholder structures, interview skills to understand transaction cycles, demeanors to know how bad situations are; and Kerry also added: financial analysis and data (Kerry, Natalie), technology (Kerry, Nathan, Noah), fraud prevention methods, security risks, fraud detection methods, finance, and

behavioral science. Four, obeying rules and regulations in specific industries (Natalie, Noah); and soft skills, segregation of duties, authorization, and specialized knowledge in industries such as manufacturing and pharmaceuticals (Noah). In an attempt to find dissimilar evidence as part of the qualitative research process, one participant expressed frustration with being expected to detect to detect fraud, and proposed an incongruous perspective with the majority. Joshua emphasized more on traits than competencies, as follows: inquisitiveness, hard work, some level of experience, knowledge of the firm, level of involvement, and people who are ready to work (Joshua). The underlying reason offered by Joshua was that the approach will determine what the person can do since the ability to implement policies by staff is a different thing; because accounting students have the basic understanding of accounting (Joshua).

A total of three themes (see Table 8) emerged from the third research question involving: strategies for integrating fraud education, need for integration of fraud education, and overall assessment of fraud education on-the-job. Two sub-themes for the third research question covered helpfulness of practical fraud education and helpfulness of college fraud education. The sub-themes were presented under the major themes that came out of the study. The themes are discussed under the research question as follows:

Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?

Table 8

Themes Describing Integration of Fraud Education

RQ 3	Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?		
Themes	Strategies for integrating fraud	Need for integration of fraud	Overall assessment of fraud

(3)	education	education	education on-the-job

Strategies for integrating fraud education. I posed the question: how would you like fraud education to be integrated into the undergraduate programs? All-in-all, participants appeared to contemplate four strategies for incorporating fraud education into the undergraduate accounting programs as follows: first, half of the study participants (50%) seemed to suggest that fraud education should be integrated into the undergraduate accounting programs as a standalone course (Kerry, Benjamin, Daniel, Edith, Emily, Natalie). According to these participants, the course should be at the junior and senior level but should not be an elective course (Kerry, Emily, Natalie), the course should make use of case studies, I.T. (Edith), and it could be designed as a specialization (Emily), and should contain fraud detection and ethics (Daniel). Second, Nathan suggested that "the existing accounting programs should be revamped to include fraud detection and forensic accounting training." Third, four participants (Daniel, Jacob, Noah, Samantha) appeared to suggest two approaches of either as a standalone course or to be combined with other accounting courses such as auditing and ethics. Additionally, the course should be at least 2-hour course with a focus on case studies (Samantha) and mandatory (Noah), but the course should be focused on fraud, ethics, histories of fraud, personal experiences and devotion of more time to the course (Daniel). Finally, one participant (Liam) seemed to proffer recommendation for fraud education to be integrated into the general business curriculum; but the course should definitely have fraud and forensic class to be designed like ethics or opinion ethics, using big projects setups, and interviewing skills based on real-*world examples.*

Participants' specific statements are reproduced as follows:

> Greatly appreciated if designed as a standalone course at say the senior level at the undergraduate level. During my time, fraud knowledge was rolled out as a component of auditing and ethics classes, but I am of the view that a time has come for a standalone class to be taught at the undergraduate level. I think it should be a core class or course-not elective (Kerry).

Natalie offered: "In both junior and senior years. It should be required. It should be fun-something you want to learn such that you can use it. Standalone class will be great. Professors can make it fun-just like business law class." Likewise, Daniel reported:

> You know-I think it should be standalone course just as we have auditing and accounting. Everything relating to the course should be fraud and ethics. It would be most beneficial from the perception that a standalone course-than if it is just part of auditing. There will be past histories and personal experiences and more time will be invested instead of a portion of time. A whole period will be invested on fraud education.

Benjamin responded:

> A standalone course could be better or a combination of ethics, fraud detection, and general forensic audit in a standalone course. It should be a core course for the accounting major at the senior year by then the students will be matured enough to go out to join the job market.

Similarly, Edith reported: "A standalone class is what I will prefer-to emphasize the fraud education. Using case studies for students to understand it. May be with IT. I cannot think of a good example but ensuring proper controls over IT-very crucial". Emily said: "A

standalone course for students who want to specialize and included in existing courses such as auditing, taxation, and so on. For all other accounting students." Likewise, Samantha added: "Either in auditing class or a class on its own such as a 2-hour class to focus on fraud education (fraud detection courses and forensic accounting topics). Case studies should be used to train accounting students to…detect corporate fraud." Jacob added: "I think I will say both. I want it to be alone. Mostly likely the professors will be fraud examiners to give you a round of fraud perspectives. How we can incorporate into practice." Noah also added: "On the contrary", Joshua emphasized: "I don't think a standalone will be beneficial. It should be part of auditing. Included to determine what one should do when confronted with a problem. I think it should be hand-in-hand with the auditing class." Additionally, Liam added:

> It should be part of the general curriculum. Definitely have fraud and forensic accounting class. We can have a whole class to go round-types of frauds and interesting aspects of fraud. The class will be interesting. I can see it being designed like ethics, opinion on ethics. Trying to set it up as a project where people have responsibilities for one to commit fraud and for others to detect it. Interviewing skills to involve with people using *real-world* examples. A big project is preferred to textbook. This is my suggestion.

Similarly, Accounting programs should be revamped to include fraud detection and forensic accounting training." (Nathan). "I believe a course should be a mandatory for all accounting students-implement that way or combine with a course such as ethics rather than just mentioning in accounting courses-Get knowledge in pieces-A class focused on fraud education will be good." (Noah).

Need for integration of fraud education. I asked participants how they perceive the need for integrating fraud education into undergraduate programs and I obtained a consensus (92%) of all participants. Almost all participants seemed to acknowledge the need to have fraud education (fraud detection courses and forensic accounting topics) integrated into the undergraduate accounting programs. Furthermore, three participants (Emily, Kerry, Nathan) elaborated that the case studies approach was the best approach to implement the course and also educators should understand fraud education from the perspectives of the audit firm (Joshua), the course should be taught like intermediate accounting (Kerry) and also integrated as auditing, cost accounting, taxation, and business law (Emily); but the course should not be deployed as an elective such that students will be the beneficiaries (Emily, Kerry). The direct quotes below provide the perspectives of the research participants: "It is sorely needed." (Nathan); "Yes. There is the need. It is happening. It should be part of undergraduate accounting programs-being accountable. Limiting the courses to real-world situations." (Natalie). Similarly, Benjamin reported: "There is the need to integrate fraud education into the undergraduate accounting programs. There is a great need for the integration. The need to include these courses in the undergraduate courses cannot be overstated. It will be good." Likewise, Daniel added:

> Critical-in today's environment because of what happened to Enron and so on. This has been going on because people always try to steal. I think it is critical that students (accounting) are exposed to fraud education to address fraudulent financial reporting, smoothing of stock prices, and steps such as the giving estimates for the quarter. It got to be reliable data responsible for how the

> estimates were obtained. In general, it is critical because people will try to circumvent processes-stealing.

Samantha added: "Very important because with technology, it is easy to commit fraud due to system overrides, no segregation of duties especially in small businesses, and collusion of employees." Likewise, Edith added:

> Very important-more emphasis should be put in it. Schools are different but courses should be structured as a standalone just as my ethics class was for one semester. Another semester for fraud class will be beneficial. I think the standalone will stress how important it is than including in auditing class. Standalone is preferred.

Noah emphasized:

> I think it is very needed and necessary for fraud education to be integrated into accounting. A lot of students start from public accounting after school. So they should be exposed to fraud education. Very efficient when taught in college to develop the ability to have the option to detect fraud. For them to decide the area of specialization-having jobs after college.

As a result, Joshua explained:

> I think what will be helpful is to try to understand how firms perceive frauds in order to tailor fraud training. I would think the best way will be case studies-where you talk about what we do such as circumstances of the company. Specific facts such as how students will change audit plans that is the way we think as professionals. Typically, by the time somebody is a manager, it will be huge because he will be operating at higher level (Joshua).

Kerry added:

> It should be taken seriously and thought like Intermediate accounting. The universities should consider developing fraud education along the lines of courses such as intermediate accounting. By placing much emphasis is important. If fraud education is included in other courses as it has been, the best outcome does not result. I will say place premium on fraud education as equally important as intermediate accounting for example.

Emily added: "I think it should be integrated into courses such as auditing, cost accounting, taxation, and business law. A standalone is good for people who want to specialize". Jacob said:

> I will say-similar to my situation, more cases to be included on how to react to certain situations. Embedded fraud in an auditing class. From –I will say-yes, that will be adequate for those on. It should be a requirement. I would say the very first and very high level. From a general standpoint of what fraud is.

Liam elaborated:

> For me, I felt my school did pretty good job except graduates go through one course which was not part of everyone's study. There should be fraud and forensic accounting class for every accounting student. Fraud-related for people to understand, making sure every accounting student gets exposed to fraud (My elective class on fraud was not available to every student so it was possible some students will not benefit from it).

The need for integrating fraud education into the undergraduate accounting program was asked as follows: how do you perceive the need for integrating fraud

education into the undergraduate accounting programs? The analysis of participants' statements seemed to suggest the need for fraud education to be integrated into the undergraduate accounting programs.

Overall assessment of fraud education on-the-job. When the question was directed toward on-the-job fraud education, as follows: how helpful has your on-the-job fraud education been in your auditing practice in detecting corporate fraud, an appreciable number of participants (75%) felt the on-the-job fraud education has been helpful even though not structured, and also dependent on the manager or supervisor. I asked participants to provide their overall assessment of the fraud education (fraud detection courses and forensic accounting topics) they received on-the-job. The statements below encapsulate the views of most of the participants: first,

> Very strong and extremely adequate and sufficient because anything I sign I can go to jail for it as opposed to others areas where people just get fired. The on-the-job education was the most adequate as opposed to the undergraduate. The classes were based on hypothetical and not practical enough (Daniel).

Second, "It was well adequate. No complaint with that- with time the hands-on experience is received as we work with different companies on what to look for-very important." (Edith). Third, Emily explained as follows: "Again, the early years -we had a good supervisor. I felt it was good for me. the supervisor sees things more. My bosses thought me but that was not formal. It depends upon the position." Four, Joshua reiterated in his position: "Superb. I think they prepare you by giving you the tools to establish that there are no material misstatements as far as fraud is concerned," Five, Kerry emphasized: "Adequate. It was anchored on the fraud education I received from

college. I believe my further studies at the graduate school and professional certification have also assisted me in no small measure to help educate me on fraud." Six, "Good-because of training. After each review-classes, webinars-consistency to be introduced. More updates. Continuous professional education on-the-job to contemplate issues on the job" (Natalie). Seven, Samantha also stated: "Very good. Experienced audit managers taught me fraud education on-the-job." Eight, Noah explained: "Very adequate. Specific courses were taught to help us to perform our work-Layout specific knowledge to detect fraud. From IT standpoint, they present good and specific information to train employees on day-to-day basis." Nine, "Quite better than the undergraduate level but there is room for improvement. Strategies should be put in place to improve on-the-job training on fraud education." (Benjamin).

However, as captured by these participants' statements below, three participants (Nathan, Liam, and Jacob) representing (25%) rejected the claim by majority of the participants and seemed to portray their fraud education on-the-job as inadequate. For that reason, the three participants revealed that the fraud education they received on-the-job was inadequate for corporate fraud detection in practice. The specific narration of the external auditors is reproduced here: "Inadequate when it comes to fraud detection." (Nathan); "Not adequate at all-because that there was not enough training done overall. Definitely could be more." (Jacob). Liam recounted: "I think there could be room for improvement. Less than adequate. It needs to have more structure. Now it all depends upon your mentor and not general training for all. Some might miss out on it."

Helpfulness on fraud education received on-the-job. On the helpfulness of fraud education received on-the-job, I asked participants to provide their thoughts on the

fraud education they received on-the-job and I obtained consensus (66.7%) among the participants and their views seemed to suggest that the fraud education they received on-the-job was helpful. Some of the participants' narratives based on the helpfulness of fraud education on-the-job are shown below:

> It has been most beneficial as opposed to those I learnt from school but could be improved as well. Getting experience with time. Very helpful in my audit practice. Even though I have not detected any but I hope if I come across one, I will be able to detect it (Edith).

Emily added: "I would say- In the early years, it was helpful but now it is by experience. I leant from the peers and supervisors. It happens when certain events happen. More of informal in approach." Samantha offered:

> Quite helpful. As one audited, experienced auditors tell you what to look for. The experienced auditors' points to areas of concern and guide you to success using audit tests such as test of controls is employed. I am now teaching stuff to newer generation of accountants joining the profession (imparting fraud education to the new generation of accountants).

Nathan emphasized: "I will say somewhat adequate. The continuous professional education courses I take on-the-job have been very helpful to me in detecting corporate fraud." Commenting on the helpfulness of fraud education on-the-job, Kerry indicated: "Very instrumental in helping me to develop the aptitude to have the awareness of fraud consciousness…more would have been better. There should be continuous update in the acquisition of knowledge for professional accountants and auditors. Now ethics has become critical." Noah emphasized:

> It has been very helpful because in some situations, what I was taught in education was observed in the field. Thinking properly. Training is enough-effectively and appropriate to detect fraud. Red flags could be tracked. Emphasis very helpful. Within industries, systems can be similar but different clients bring other perspectives.

I asked participants the provide their perspectives on how helpful their on-the-job fraud education been in their auditing practice and most of the participants stated as follows: "Quite helpful but there is room for improvement. There is the need for the on-the-job training to be structured or standardized to derive maximum benefits." (Benjamin). Samantha offered: "Very helpful. Experienced audit managers trained me using test of internal controls, what to look for, training to identify what could go wrong. Over the years this on-the-job training has helped me with knowledge to detect corporate fraud." Natalie said: "Very helpful. Same as above (Even though the knowledge on the job is greater than the knowledge from undergraduate programs). Helpful. Professional skepticism was taught in school. Getting data-approach to data collection-suggestions on the job)." Similarly, Nathan added: "Very helpful. I learned real-life first hand training in fraud**."** Daniel offered:

> Very helpful because I was the one who caught the fraud on- the- job. I looked for the red flags and found the fraud. I took a pessimistic view because of my extensive experience and exposure to actual fraud finding. I am always picking up books and reading. I might have more knowledge that other people. On-the-job exposure gave me more training because of the practical experiences as opposed to actual book knowledge. The books are not updated well enough because once

> books are printed, the publishers will like to sell them. It is not updated regularly as it should be-Class content.

Kerry offered:

> Very helpful. The on- the-job fraud education prepared me by building upon the fraud education I received from the business school. The on-the-job training provided a refreshment of what was taught in school. It served as a constant reminder of what was started earlier on. I hope the on-the-job training will be properly coordinated for benefits for all external auditors (Kerry).

Edith offered: "Helpful. I guess I gained a better understanding than my undergraduate education. I feel they trained me well enough to detect fraud- good understanding of what to look for." Emily added: "In my early years those subject matter covered fraud but it wasn't a great deal. Yes, it has to be helpful but it was not formal-just on-the-job training." Yet, "Extremely helpful. One of the benefits of working in my place of work is that there several resources abound…train yourself. Document what your fraud risks is, management overrides… I did not think of that before." (Joshua). On this theme, Jacob reported: "Not helpful at all, because of the fact that there is not enough that is done. More aspects need to be included in our training. In my opinion, it is not much." Liam said: "On-the-job, not changed but we have not had much training in fraud. It is my managers and supervisors challenging me to identify potential issues...the biggest thing (On-the-job fraud education centers on mentorship) …. depends upon who your manager or supervisor is." Noah responded:

> Very helpful. Opposite of fraud education in undergraduate study-providing the knowledge for the on-the-job. Employers did a good job in training us. Managers

point us to how to detect fraud and that increases the quality of our work. More of mentorship role using Q & A (question and answers). Just to detect fraud from past experiences. Very helpful to build relationship within teams to ensure better performance-team responsibilities.

By way of analysis, I received a majority participants' (75 %) views on how helpful the fraud education they received on-the-job was to their auditing practice. Most of them (75%) seemed to suggest that the fraud education they received on-the-job was quite (Benjamin), or very (Daniel, Nathan, Natalie, Noah, Kerry, Samantha), or extremely (Joshua) helpful (Edith) in their auditing practice. Part of the qualitative research process is to search for disconfirming viewpoints. The views of participants who found fraud education received on- the- job to be helpful is provided in the specific quotes provided below: "Generally, it depends on the supervisor or manager-dependent on how good the supervisor or manager was. Not very helpful, but could be improved. Well-developed institutions rely on time-tested procedures to help newly-recruited employees cope with fraud detection in practice." (Benjamin). Daniel reported: "Not as helpful because of my experience in the years I have been in the field. I currently know it and practice it. Although, there is always room for improvement in internal controls, policies and procedures, and corporate compliance." As part of the qualitative research process, I obtained disconfirming evidence from three participants (Emily, Jacob, Liam). These participants (25%) were of the view that the fraud education they received on-the job was not helpful to them in their auditing practice.

Helpfulness on fraud education received in college. I asked participants to provide their perspectives on how helpful their undergraduate fraud education has been in

their auditing practice and I obtained a 75% in opinion among participants. While 75% of participants seemed to suggest that their undergraduate fraud education has not been helpful in their auditing practice, the other participants, representing 25%, also appeared to suggest that their undergraduate fraud education has been helpful to them in their audit practice. I reproduce the statements of some of the participants below: Noah reported: "I mean-really not being helpful. I have benefitted from on-the-job exposure. I had general knowledge. Nothing specific to be related to knowledge in undergraduate education could have been better." Nathan reported: "It at least gave me a baseline knowledge for fraud detection." Samantha also added: "Not very helpful because we were not taught fraud education (fraud detection courses and forensic accounting topics) much. It might have been a chapter but I cannot recollect in detail now." Benjamin added: "It has not been incorporated enough. It has not been very helpful but something can be done. The undergraduate studies did not do much, but the undergraduate education provided the basics in appreciating the general area…was broader in scope." (Benjamin).

> It was somewhat helpful because it just gave me opportunity to better understand how fraud happens, fraud experiences, and how to have CPA attached to one's name. This, maintaining the highest professional education and elevating one's professional self because it will be a lot more crime that it was somebody else writing a bad check for example because of the CPA designation I have (Daniel).

In addition, Edith responded: "It is a good start. I could have benefited more but I feel like I was disadvantaged going into audit position. I don't think any of my mates are lacking basic understanding of fraud." Similarly, Kerry offered: "Very helpful. It created the required fraud awareness…For example, the cases of Enron and WorldCom helped us

to draw lessons for audit practice…I would have wished that more detailed aspects had been taught also to prepare us for practice." Joshua added: "Not really. Like I said, on-the-job. My undergraduate degree prepared me to be professional. Teaching you how to learn but on-the-job training is crucial." Liam added:

> It has been helpful to give me professional skepticism. You know you have a job to do. It is important. That is what undergraduate course did to inculcate in me to detect corporate fraud. Helped me to identify issues of lapping (without exposure to fraud education at my undergraduate program, I would not have detected fraud by lapping).

Emily offered: "I would think it was helpful. It was fine. It could have been better. I think that we know what we know. There should be room for improvement." On his part, Jacob intimated: "It has been extremely helpful. I have learnt all what I need to know about fraud. It was definitely good. We practiced advanced scenarios across most of the courses at the undergraduate level." Natalie reported: "Even though the knowledge on the job is greater than the knowledge from undergraduate programs. Helpful. Professional skepticism was taught in school. Getting data-approach to data collection-suggestions on the job."

On the helpfulness of fraud education received while in college, I asked participants to provide their perspectives on the fraud education they received in college and most (58.3%) of the participants seemed to suggest that the fraud education they received while in college was not helpful. Some of the participants' narratives focusing on the theme of helpfulness of fraud education in college are shown below: first, "Extremely. It really opened my mind. I am honest and I give everybody the benefit of

the doubt but people are not honest. My eyes were opened to see red flags." (Daniel); and "It was a good start. May be knowledge of terms. Case studies will be a good idea of how far fraud can occur and knowledge of transactions" (Edith). Second, Emily reported: "Again, I think it was helpful at a point because we learnt about segregation of duties- how certain tasks and procedures are put in place. It was foundational for future development of knowledge." Third, Joshua reported: "I don't think it was helpful. What I have learnt on-the-job was to help to detect fraud. It gave me, a bigger picture with historical background." Four, Samantha reported: "Non-existent. There was no fraud education (fraud detection courses and forensic accounting topics) in my undergraduate accounting programs." Five, Nathan added: "I will say not enough. I was able to detect the fraud based on my work experience and not based on my college education." Noah also summed up his experience as: "As far as application of education is, I will say 20% of my education is on fraud detection. In some auditing, I had exposure. My education was not heavily based on fraud detection."

Part of the qualitative research process is to look for disconfirming evidence. As a result, the views of participants who found fraud education received in their undergraduate accounting programs to be helpful is provided in the specific quotes below: first, "Very helpful. I know how to react in situations to bring out issues to engagement team before bringing it out to management. I have seen the consequences. Doing the right thing is key." (Jacob). Similarly, Liam emphasized:

> For me, definitely helpful because I had one elective class covering account balances, evaluation of control environment. Lapses such as lapping occurred because an opportunity was presented when a relative was working with him.

> Without adequate training, I would not have detected it but possibly passed over (opportunity presented itself because of relationships and lapping was used to commit the fraud)."

Evaluation of Findings

This study was intended to better understand the phenomenon of fraud education against the backdrop of corporate fraud detection; and also glean from external auditors their perception and views on fraud education received in their undergraduate accounting programs and competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs. The interest was to add rich depth to the work already conducted on fraud education, as it appeared that rich qualitative data was not abundant in previous research on corporate fraud detection and fraud education. The exploratory multiple-case study was utilized to address the research questions to create a snapshot of findings based on the themes (Yin, 2011). Pseudonyms were used in reporting the research results in order to protect the identities of the participating external auditors. The analyzed research data was interpreted to provide a conclusion for the study (Yin, 2011). The themes were the findings and conclusions drawn from the external auditors' perceptions of fraud education to inform accounting practice regarding fraud education. This study's findings likely added value to accounting practices because it was the first time external auditors' perspectives regarding fraud education from undergraduate accounting programs that prepared them to detect fraud has been examined.

As applied in previous accounting scholarship (Clune et al., 2014; Hermanson et al., 2012), study findings were provided, as follows: first, a discussion about gaps in

fraud detection education received in undergraduate accounting programs and the detection of corporate fraud. Second, the competencies needed by accounting students to prepare them to detect fraud. Third, strategies typically used by external auditors in the field that prepared them to detect corporate fraud. Four, a discussion of the need for integration and also the possible strategies for integration of fraud education in the undergraduate accounting programs. Finally, all the themes were related to the findings and the implication of all themes discussed in relation to fraud education literature. The data analysis was concluded to provide insights into fraud education against the background of corporate fraud detection that informed accounting research and proposed further research into fraud education. A final perspective on external auditors' perceptions was given to conclude the analysis stage.

On fraud education received in undergraduate accounting programs, external auditors did not receive much fraud education in their undergraduate accounting programs for corporate fraud detection. Again, external auditors received adequate ethics education in their undergraduate accounting programs. The fraud education the external auditors received in college was not helpful/insufficient in detecting corporate fraud. On gaps in fraud education received on-the-job, external auditors received much fraud education on-the-job than in their undergraduate accounting programs for corporate fraud detection and also received adequate ethics education on-the-job. The fraud education the external auditors received on-the-job was helpful in detecting corporate fraud. There could be other fraud education that could be taught on-the-job such the specific and general fraud courses and topics shown in Table 9:

Table 9

Other Fraud Education that could be Taught On-the-job

Specific fraud courses and topics	General fraud courses and topics
Auditing	Asking important question
Current trends on fraud	Cash receipts and disbursements
Ethics	Data analytics
Financial statements fraud	Financial climate
Forensic accounting	Financial management
Fraud detection	General ledger
Fraud in government sector	I.T
Fraud prevention	Inventory
How fraud is committed	Issues management
Legal aspects of fraud	Journal vouchers
Potential risk factors	Stratification of data
Segregation of duties	Update on the economy
What to look for	

On detection of corporate fraud by external auditors, external auditors recognize the role of auditors in providing credibility to the financial reporting process, but rejected fraud detection as their main pre-occupation. Gbadago (2015) and Laxman, Randles, and Nair (2014) have found that only 25% of graduating final year students in Ghana knew the responsibility of auditors, implying that about 75% of them did not know their responsibilities. External auditors accepted their role in designing audit procedures to detect material misstatements because most of the participants recognized the need to design audit procedures to detect material misstatements in the financial statements. On external auditors' experiences with the detection of fraud in audit practice, most of the

external auditors interviewed have not detected corporate fraud in their auditing practice. In March 2015, the IIA's North American Pulse of Internal Audit Survey found that 40% of practitioners categorized the retraining of skilled personnel as a priority due to increased competition for audit teams to be prepared with the skills and talents such as: problem solving and critical thinking, internal auditing standards and guidelines, emerging professional issues, appreciating governance ,control and risks; use of technology, using stimulating real-world games, internal auditing experience through internship, cases, and class projects (Seago, 2012). Regarding strategies typically used to detect and prepare external auditors in practice, the following strategies were found useful for preparing external auditors to detect corporate fraud, as detailed in Table 10.

Table 10

Strategies typically utilized to prepare external auditors to detect fraud

General strategies		**Specific strategies**
Strong handbook	Fraud detection skills	Segregation of duties
Expectations orientation	Industry-specific planning tests	Compliance/ Training
Financial policies/procedure Bank	Competencies of employees'	Timely financial reporting
reconciliation statement Preparation	Integrity of management	Timely reconciliation
of Cash Logs	Integrity of accountants	Asking questions about
Signing off on petty cash	Fraud discussions	controls
Compliance	Financial inquiries	Scrutiny of odd transaction
Sample test in excess of 10K	Auditing framework	Password changing (banking)
Basic accounting	Working with internal auditing	Incentives and rewards
Consequences of fraud	/Meetings	Internal control
Updates of SOX	Checklist on fraud section	Rules/regulation updates
Ethical mindset	Engagement Quality Controls	Analytical procedures(APs)

Loyalty	Test of balances	Financial analysis-ratios
Substantive/control testing	Inventory and investment	Tests controls
Testing corporate system	Cutoff for revenue/asset	Spontaneous duties re-
Segregation of duties	reviews	assignment
Systems security access design	Checks and balances	Reconciliation review
Meeting/inquiring with clients	Unpredictable procedures	Employee overtime
Conversation with management	Speaking out	Conducting brainstorming
Disbursement controls	Eye contacts	sessions
Variance analysis	Fraud detection	Random tests/data stratification
Professional skepticism	Training in college	Mandatory vacation (Key
Internal controls	Training on-the-job	people)
Control environment	Brainstorming session	Review of wire transfers
Control deficiencies evaluation	Use of interviews	Detailed procedure to detect
Computer auditing	Analysis of accounts	fraud
Vendor Set-ups	Inquiries of variance	Review of journal vouchers
Control environment	Random tests of vendors	Consulting legal counsel
Recording capabilities	Nature of management	Internal audit utilization
Tone at the top	Audit planning	Internal controls
		Fraud detection procedures

External auditors' expected competencies for corporate fraud detection after graduation was not helpful and that external auditors needed the competencies presented in Table 11:

Table 11

The competencies needed by accounting students to prepare them to detect fraud

Fraud detection competencies	General competencies	Specific competencies

Authorization	Demeanors to know bad situation	Ability to think deep
Computer-aided auditing courses	Experience	Behavioral science
Ethics	Hard work	Critical thinking
Forensic accounting/auditing	Inquisitiveness	Finance
Fraud detection methods	Issues management	Financial analysis
Fraud prevention methods	Knowledge of the firm	Financial data
General accounting systems	Level of involvement	Interview skills
How money goes out of company	Peoples person	Negotiation
Obeying industry rules/regulation	Peoples readiness to work	Problem-solving
Overstated sales/assets	Soft skills	Professional judgment
Security systems risks	Some level of experience	Research & analysis
Segregation of duties	Stakeholder structures	Specialized industry knowledge
Transaction cycles	Trained mindset	Spreadsheets on checklist
Understanding risks	Understanding the entity	Strategic planning

Other competencies required to prepare external auditors to detect corporate fraud were found to include the list provided in Table 12, as follows:

Table 12

The other competencies needed to prepare accounting students

Fraud detection skills	Integrated skills	General skills

Fraud triangle	Professional skepticism	Gaining understanding of issues
Segregation of duties	Professional judgement	Organizational insights
Selecting audit materials	Strategic thinking	Passion to do right
Investigation of transactions	Forward thinking	Questioning mindset
Auditing background/Ethics	Due diligence	Patience
Know basic fraud types	Operational deficiency	Withstanding clients' persuasions
Relationship of balances	Professionalism	People of integrity
Cash risk	Questioning mindset	Know what to look for

External auditors have expressed the need to have fraud education integrated into the undergraduate accounting programs. The AICPA (2005, 2015) have proposed expected competencies for preparing accountants, as a result, four strategies for incorporating fraud education into the undergraduate accounting programs, include a standalone course, revamping the existing accounting curriculum with fraud education, a combination of both a standalone course and adding to existing accounting courses, and integrating into general business curriculum.

Overall assessment, external auditors' fraud education in their undergraduate programs was not helpful in assisting them to detect corporate fraud. On the contrary, external auditors' fraud education on-the-job was helpful in corporate fraud detection. The concluding part of the data analysis phase was discussed in Chapter 5. The study utilized the agency theory, the fraud triangle, and the experiential learning model (ELM) as framework to address the problem of external auditors' detection of less than 5% of fraud cases due to their lack of fraud detection topics and courses from their undergraduate studies (Agarwal & Medury, 2014; Alabdullah et al., 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Meier, Kamath, & He, 2010;

Plumlee et al., 2015; Rahman & Anwar, 2014; Reidy & Theobald, 2011). In the context of the agency theory, the corporate stakeholders expect auditors to detect corporate fraud, yet external auditors do not accept fraud detection as their pre-occupation.

Agency theory contemplates the separation between ownership from control, whereby corporate shareholders engage management, and as a result, management has the responsibility to represent the interest of shareholders (Durus & Mohamad, 2011; Jelinek, 2015; Miller, 2011). Participants for this study accepted the fact that they are to plan and perform audit procedures to detect material misstatements. To what extent material misstatements mean fraud is not clear because corporate directors will not always seek the best interests of the shareholders (Jelinek, 2015; Upping & Oliver, 2011). It is the study's position that when certain measures are put in place by the accounting profession, corporate fraud will be detected be auditors, such as: when fraud education is incorporated into undergraduate accounting programs, when on-the-job training is formalized and structured, when basic competencies are improved, when fraud detection strategies are utilized by external auditors in the auditing field (see Table 10).

In the context of the fraud triangle, the study participants specifically identified the fraud triangle as a requirement for preparing external auditors for corporate fraud detection both in college and on-the-job. The inexperience of external auditors cannot be separated from lack of fraud training or lack of awareness of fraud in practice (Alabdullah et al., 2014; Brody et al., 2012; Noviyanti & Winata, 2015). The low corporate fraud detection rate by external auditors presented an opportunity to perpetrators of fraud because 82% of companies were audited by external auditors in 2016 but only less than 5% of fraud cases were detected (ACFE, 2016), implying that

about 95% of corporate fraud goes undetected. Rationalization was revealed by study participants and for that reason, the external auditors determined that the expected competencies of accounting students was low or basic, which seemed to suggest that graduating accounting students were not under any obligation to know how to detect fraud. This viewpoint will not augur well for the accounting profession. Schuchter and Levi (2016) revisited the fraud triangle as developed by Donald Cressey in a study using an explanatory framework and found that the opportunity variable is necessary but insufficient factor for criminal offences. As a result, if fraud education is integrated into the accounting programs, students will join the accounting workforce with a high degree of competency to detect fraud.

On incentive or pressure, the lack of fraud education in undergraduate programs provided incentive for the accounting profession because external auditors do not accept fraud detection as their responsibility. Schuchter and Levi (2016) found the perceived pressure variable to be silent, however, instead of the rationalization variable, an "inner fraud-inhibiting voice" tended to deter perpetrators from committing fraudulent acts just before the act and the inner voice element of the fraud triangle was directly associated with corporate culture. As a result, before the 20th century started, the audit expectations gap has arisen due to the modifications the accounting profession made to the role of auditors, because fraud detection and reporting were not viewed as a major objective of audits (Saeidi, 2012). However, the literature has established at various times in history that the accounting profession has accepted fraud detection as a responsibility culminating in the promulgation of SAS 99 (Agarwal & Medury, 2014; Free & Murthy, 2015; Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003; Rufus & Haln, 2011;

Smith, 2015). In the context of the ELM, this study has identified the use of personal experiences, case studies, and so on as the best ways of deploying fraud education into the undergraduate accounting programs and on-the-job. Consequently, ELM has provided the profession with a curriculum design based on experience, reflection, experimentation, and conceptualization in order to develop attitudes and beliefs of fraud education (Baden & Parkes, 2013; Dellaportas & Hassall, 2013; Gates et al., 2011; Sewchuk, 2005).

The results obtained for the study on education on doing what is right in college and on-the-job were expected. I obtained a consensus that external auditors appeared to suggest that the ethics education they have received was adequate. On integration of ethics into the undergraduate accounting programs, Trung (2016) investigated whether ethics should be taught in accounting programs and how professional ethics had been deployed and observed that ethics should be taught as a separate course or included in the different accounting and auditing courses. The accounting scandals that shook the foundations of the financial system in America and other parts of the world, presented opportunity to the accounting profession (educators, CPA firms, Practitioners) to introduce ethics education into the accounting programs in particular and business studies in general. This view is supported by Kleinsmith, Hewitt, Previti, and Kachur (2016), who asserted that ethics in accounting education is central to the profession's role as gatekeeper for financial reporting credibility, accuracy and reliability for decision-usefulness; therefore, the profession should deal with the moral decay and integrity failures in their undergraduate accounting programs.

The results of this study was expected regarding the problem under investigation because the study problem was supported by current literature (Agarwal & Medury, 2014; Alabdullah et al., 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Meier, Kamath, & He, 2010; Plumlee et al., 2015; Rahman & Anwar, 2014; Reidy & Theobald, 2011). Except for 1 participant, who has detected corporate fraud, a majority have not detected corporate fraud specifically even though some provided evidence for the detection of other types of fraud such as credit card, payroll, inventory, fraudulent billing, and falsification of accounting information. There have been calls by Daniels et al. (2013), Meier et al. (2013), Nix and Morgan (2013), and Soltani (2014) for further research to explore the practitioners' perspectives on the fraud detection topics and courses that are absent from the undergraduate accounting programs designed to prepare students to detect corporate fraud. Another expected outcome of this study is associated with the strategies of incorporation of fraud education offered by the participants. Participants seemed to suggest 4 approaches for integrating fraud education into the undergraduate accounting programs, involving: a standalone course, a combination of standalone and inclusion in existing accounting programs, revamping the accounting courses, and including in the general business. All these views have been expressed by earlier scholars (Daniels et al., 2013; Gates et al., 2011; Meier et al., 2010; Rebele & Pierre, 2015). For example, empirical evidence has provided support for business schools to have a separate course on fraud education in accounting programs (Daniels et al., 2013). Additionally, the inclusion of fraud detection topics and courses into the existing undergraduate accounting curriculum (Meier et al., 2010), and the

integration of fraud education into all business curricula because fraud is a critical business issue (Gates et al., 2011).

The conflicting results of the study centered on the overall assessment of fraud education in the external auditors' undergraduate programs, which were determined to be inadequate by participants, yet the external auditors established that their fraud education on-the-job was adequate. What remains to be clarified is the inability of external auditors to detect corporate fraud with their on-the -job fraud training. This state of affairs is explained by the absence of fraud detection courses and topics; as well as strategies for detecting fraud in audit practice (see Table 10). Again, if on-the-job fraud education was adequate; then, why the need to integrate fraud education into the undergraduate accounting curriculum. This issue is yet to be resolved by the accounting profession. A total of 9 major themes and 7 sub-themes emerged from the face-to-face interviews of the 12 external auditors in this proposed study. The themes are:

Corporate fraud detection in practice. The estimated median loss of corporate fraud is $1million for the period (ACFE, 2010, 2012, 2014) and the yearly fraud cost is estimated at 5% of a typical companies' revenue, translating into $2.9 trillion to $3.7 trillion based on the gross world product across the globe (ACFE, 2010, 2012, 2014; Dorminey, Fleming, Kranacher, & Riley, 2012). On detection of corporate fraud by external auditors, external auditors recognized the role of auditors in providing assurances to the process of financial reporting. On external auditors' experiences with the detection of fraud in audit practice, most of the external auditors interviewed have not detected corporate fraud in their auditing practice. This study finding is a validation of the ACFE's (2014) assertion that despite the implementation of external audits in

organizations, fraud detection and prevention are ineffective. According to the ACFE (2010), the percentage of fraud detection by external auditors are as follows: 4.2% (United States), 4.1% (Canada), and only 7.3% (globally); however, the gap subsisting between fraud detection and prevention makes small organizations susceptible to fraud exposure resulting in considerable damages. By way of comparison, while fraud detected by accident constituted 7% of fraud, eternal audits detected only 3% in 2014 and 3.8% in 2016 of frauds (ACFE, 2014, 2016). This view was supported by the responses I received from external auditors (participants), who indicated that they have not detected corporate fraud in practice.

Wells, founder and chair of ACFE, is cited to have postulated that the majority of certified public accountants (CPAs) are ignorant about fraud detection because of 80 years of a lack of fraud training for accounting graduates (Brody et al., 2012). This viewpoint from Wells is incongruous with the findings from study because some of the participants have detected other forms of fraud such as the following: first, *payroll fraud*, involving non-existent employees and non-compliance issues, and *fraudulent billing*, where customers were either overbilled or doubly billed because customers do not scrutinize or check their accounts properly. As compared to ACFE (2016) report, while tips detected 29.6% of fraud and accounted for 43.5% of cases and internal auditing registered 12% for small companies and 18.6% for large companies; external audits recorded 3.8% in 2016; even though the U.S.A recorded only 4% as against 5.9% registered by the Asia Pacific region despite 82% of organizations undergoing independent audits. Second, a $25,000 *credit card fraud*, attributable to a lag in reconciliation for a period of one and half months using refunds and duplication of

transactions. Third, *inventory fraud*, was committed at a lower level of corporate management through constant changing of inventory count results. Nevertheless, the experiences of one of the participants were based on heresies, as follows: *sales fraud*, involving a manager, who manipulated sales numbers to get high commission. Consequently, while asset misappropriation has been the commonest form of fraud taking place in 83% of cases globally, corporate fraud occurred in less than 10% of cases yet resulted in a median loss of $975,000 (ACFE, 2014, 2016, Kern & Weber, 2016). Additionally, *theft/stealing*, where people take computers from office without authorization, and *falsification of documents*; in the specific case of a check issued for $3,000, an employee altered the face value of the receipt by adding the number "three (3)" to read $3,535 even though the employee's receipt was only for $535.

The ACFE's position on fraud as an individual problem as opposed to socio-political phenomenon is untenable, because individuals are motivated to cheat without being caught, as a result, there existed concealment opportunities that have enabled organizations to be defrauded, and there is an association between the individualized frailty and personality and fraudulent behavior (Lokanan, 2015). Finally, *corporate* or *financial statements fraud*, in this fraudulent scheme, a participant reported that the management of an entity intentionally delayed the recognition of revenue in order to meet the threshold for a bonus. Corporate fraud registered between 7.6% in 2012 and 9.6% in 2016 of the occupational fraud category and recent evidence corroborates the view that organizations can benefit from being proactive (ACFE, 2016). The other frauds detected by a participant was *lapping*, here the employee responsible for reconciliation was behind on-the-job, and an outside third party took advantage to get into the accounting system

using bank wire transfers outside of the organization. Fraud risks such as: skimming, payroll, check tempering, and cash larceny have become common in small organization (ACFE, 2016). The ACFE (2014, 2016) and Kern and Weber (2016) have validated the existence of these types of fraud detected by participants at various magnitude and fraud losses, as follows: billing schemes 22.2% for $100,000, check tampering 11.4% for $158,000, payroll 8.5% for $90,000, expense re-imbursement 14% for $40,000, skimming 11.9% for $53,000, non-cash 19.2% for $70,000, cash larceny 8.4% for $90,000, cash on hand 11.5% for $25,000, and register disbursement 2.7% for $30,000. Nevertheless, corporate fraud occurred more than 10% in seven major industries as follows: banking and finance (12%), manufacturing (10.9%), health care (13.2%), construction (17.4%), technology (12.2%), services (17.1%), professional services (11.7%, ACFE, 2016).

Fraud education on-the-job. On fraud education received on-the-job, external auditors received sufficient fraud education on-the-job for corporate fraud detection. A majority of the study participants seemed to favor the view that much fraud education was not received while in college.

Fraud education in college. On fraud education received in undergraduate accounting programs, external auditors did not receive adequate fraud education in their undergraduate accounting programs for corporate fraud detection. Most of the research participants seemed to suggest that they did not receive fraud education while in college. By implication, 47% of undergraduate accounting students do not proceed to graduate schools where fraud examination and advanced auditing are currently received, but proceed to the accounting firms as either accountants or auditors without fraud training

(AICPA, 2013; Gates et al., 2011; Prabowo, 2013). This position is corroborated by the AICPA (2013), which indicated that the undergraduate level constituted 84% of accounting enrolments, 74% of graduating cohorts, 60% employment in accounting (CPA) firms, and over 50% assigned accounting and auditing roles.

Other fraud detection education. There could be other fraud education that could be taught on-the-job. When the external auditors were asked to provide other fraud education they would have liked to have been taught in college they provided a range of fraud detection courses and forensic accounting topics reproduced in Table 12 above.

Responsibility for fraud detection. The responsibility for fraud detection and prevention was attributed to corporate management by the study participants. Consequently, participants rejected fraud detection as their main responsibility. Most of the research participants seemed to recognize the role of auditors in ensuring that the financial reports presented by corporate management to corporate stakeholder were reliable and credible. For that reason, participants unanimously attributed the function of fraud detection and prevention to management; and as a consequence, rejected fraud detection as their function probably because financial statements fraud are usually perpetrated by an inside group; however, independent auditing of the financial statements have consistently been implemented in organizations (ACFE, 2016). External auditors accepted their role in designing audit procedures to detect material misstatements because most of the participants recognize the need to design audit procedures to detect material misstatements in the financial statements. According to ACFE (2016), the purpose of external auditing is not primarily to detect corporate fraud, but external auditing can be categorized either as an active or passive subject to the circumstances.

Education on doing what is right. External auditors received adequate ethics education in their undergraduate accounting programs, and this finding is supported by a majority of the participants who appeared to suggest that their education on doing what is right received in college was adequate. Furthermore, external auditors received adequate ethics education on-the-job because most of the participants appeared to suggest the ethics they received both in college and on-the-job was adequate.

Fraud detection and mitigating strategies. On strategies typically used to detect and also prepare external auditors in practice, the strategies provided by participants in Table 10 useful for preparing external auditors to detect corporate fraud. Participants appeared to suggest the strategies that are needed to typically prepare external auditors to detect fraud (see Table 10).

Expected competencies. External auditors needed the competencies, as presented in Table 11 above. All participants seemed to suggest that competencies for the undergraduate accounting students are needed by accounting students. According to the AICPA (2015), core competencies should be viewed as the unique blend of technology, knowledge, and human skills to provide value and results to the user and as a result, improving the core competencies is key to sustaining an advantage, both competitively and differentially in the market place. For this reason, the AICPA's (2015) core competencies have been supported by current literature in terms of communication (Bressler, 2011), critical thinking (Plumlee et al., 2015), and technology (Lawson et al., 2015; Lawson et al., 2014). However, what remains unclear is the inclusion of project management, resource management, and interaction skills within the detailed contents of the 2005 classification of the AICPA. Participants explained that no amount of

classroom education on fraud detection would adequately prepare accounting students to detect corporate fraud in practice. Consequently, in 2015, the AICPA reclassified the three broad competencies into five-fold core competencies: (a) communication and leadership skills, (b) strategic and critical thinking skills, (c) interpretation of converging information, (d) technology adeptness, and (e) a focus on the customer, client, and market.

To this end, on-the-job experience was critical to corporate fraud detection. Nevertheless, participants expressed a low or basic expectation of accounting students in the detection of corporate fraud. By way of illustration, the AICPA (2005) grouped core competencies into three categories: (a) broad business perspectives, (b) functional competencies, and (c) personal competencies. Unlike the scholarly and professional literature above on accounting students' competencies, the AICPA has not yet addressed the modification needed in accounting education resulting from the lack of fraud education in accounting undergraduate programs to detect corporate fraud (Hansen & Peterson, 2010; Lawson et al., 2015; Lawson et al., 2014).

Overall assessment of fraud education in college. External auditors' fraud education in their undergraduate programs was not helpful in assisting them to detect corporate fraud because all but 5 participants seemed to indicate that their undergraduate fraud education was not helpful at all.

Helpfulness of perceived competencies. External auditors' expected competencies for corporate fraud detection after graduation was not helpful because a majority of the participants seemed to suggest that the expected competencies were not helpful for accounting students from college.

Other fraud detection competencies. **R**esearch participants' suggestions on accounting students' competencies as per Table 11 above will likely help the accounting profession to modify the existing accounting programs because other competencies required to prepare external auditors to detect corporate fraud have been found. In the like fashion, the Institute of Internal Auditors also identified three of the top five competencies to be possessed by internal auditors, as follows: (a) communication skills (report writing and presentation, oral and written), (b) problem identification and solution skills (conceptual, analytical thinking, and core), and (c) staying abreast with regulatory changes and industry standards (Bailey, 2010).

Strategies for integrating fraud education. Four strategies for incorporating fraud education into the undergraduate accounting programs were found, as follows: a standalone course, revamping the existing accounting curriculum with fraud education, a combination of both a standalone course and adding to accounting courses, and integrating into general business curriculum. All-in-all, participants seemed to contemplate 4 strategies for incorporation of fraud education into the undergraduate accounting programs as follows: first, as a standalone course at the junior and senior level using case studies, I.T, ethics, and fraud detection; and the course should not be provided as an elective but could be a core or specialization. Next, the current accounting curriculum could be revamped to include fraud detection courses and forensic accounting training. Next, a combination of two approaches either as a standalone course or a combination with other accounting courses such as auditing and ethics. The proposed fraud course should devote ample time using case studies, and personal experiences, and should be at least 2-hour course. Lastly, fraud education could be incorporated into the

general business curriculum, but the class should be a fraud and forensic class utilizing projects, interviewing skills, and real-world examples.

Need for integration of fraud education. Meier et al. (2010) found less than 3% of the Association to Advance Collegiate Schools of Business Accounting Accredited Schools to have separate programs in fraud examinations. Forensic accounting needs to be incorporated into the undergraduate accounting programs because it is critical to fraud detection (Bhasin, 2013; Carpenter, Durtschi, & Gaynor, 2011; Colon, Badua, & Torres, 2016; Mangala & Kumari, 2015; Ragland & Ramachandran, 2014; Singer & Wiesner, 2013). External auditors have expressed the need to have fraud education integrated into the undergraduate accounting programs. Consequently, fraud education will benefit not only employers and students (Peterson, 2003), but also other stakeholders such as accounting practitioners, educators, universities, accounting firms, regulatory bodies, economy, and the general public (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). To this end all participants seemed to acknowledge the need to have fraud education incorporated into the undergraduate accounting programs, preferably using case studies.

Overall assessment of fraud education on-the-job. On the contrary, external auditors' fraud education on-the-job was helpful in corporate fraud detection. An appreciable number of participants seemed to feel that their on-the-job fraud education has been helpful in fraud detection in the field even though, not structured, and also dependent on the manager or supervisor.

Helpfulness of fraud education on-the-job. The fraud education the external auditors received on-the-job was helpful in detecting corporate fraud. The finding was

supported with the views of most of the study participants, who appeared to suggest that the fraud education received while on-the-job was very helpful. Courses such as science, psychology, mathematics, and computer science (Crawford, 2016) were not corroborated by this study's findings even though literature on fraud education has validated psychology as a needed course (Mitric et al., 2013). As a result, the accounting profession should investigate these courses emphasized by EY in their on-the-job training programs (Crawford, 2016).

Helpfulness of fraud education from college. The fraud education the external auditors received in college was not helpful and insufficient in detecting corporate fraud. Most of the participants appeared to suggest that the fraud education received while in college was either not helpful or insufficient to prepare them to detect corporate fraud.

In this qualitative study, a purposive sample of 12 external auditors were recruited and data saturation was reached at the interview of the 11th participant. According to Stake (2006), the selection of cases in multiple case study is most effective when it is involved with a minimum of 4 and maximum of 10 participants. While 4 participants were considered to give insufficient evidence, 10 participants provided better understanding from unique interaction (Stake, 2006, p.22). Saturation occurred at the stage of data collection where no relevant data provided new insight to the research study (Patton, 2002, Yin, 2009, 2011). Consequently, data saturation was determined to have occurred at 11 participants (Guest et al., 2005; Lincoln & Guba, 1985; Patton, 2002, Saldaña, 2013; Yin, 2011).

In the context of the study and the accounting profession, this study has provided CPA firms with a basic and low competency level of accounting students from the

colleges because their training tended to be discrete, sporadic, scanty, and insufficient to be provided on-the-job fraud training for the benefit of new entrants. However, participants seemed to suggest that their on-the-job fraud training was not structured and formalized. Sixty percent of undergraduate accounting students are employed by CPA firms (AICPA, 2013), 47% of undergraduate accounting students will not make it to the graduate school (AICPA, 2013; Gates et al., 2011; Hendi, 2013). The incorporation of fraud education in undergraduate accounting programs would be a benefit to accounting programs, universities, the economy, academicians, practitioners, and society (Meier et al., 2010; Seda & Kramer, 2009). Educators and university administrators will find the study results useful on the specific fraud detection courses and topics (see Table 12), competencies required of accounting students (see Table 11); as well as, the strategies for corporate fraud detection (see Table 10), using the course structure and deployment options suggested by the external auditors in this study.

The originality of the findings of the study should be viewed in terms of the additional fraud detection courses and forensic accounting topics identified by this study (Table 12); and also the strategies for detecting corporate fraud within the auditing field (Table 10). An argument to modify accounting education has been ongoing (French & Coppage, n.d; Singer & Wiesner, 2013; Spiceland, Spiceland, & Schaeffer, 2015). Furthermore, the findings are incremental within the context of the results on the urgent need to incorporate fraud education into the undergraduate accounting education; and also to restructure and formalize the on-the-job fraud training. Scholars (Brody et al., 2012; Hanson & Peterson, 2010; Hussain, Kennedy, & Kierstead, 2010; Lawson et al, 2014) have asserted that the specific courses on fraud education that cannot be found

from the undergraduate accounting programs were yet to be agreed upon. The findings of the study are revelatory in regards to the corroboration of the existence of low corporate fraud detection and the existence of other types of fraud that external auditors should be prepared to detect such as payroll, credit card, and so on.

On *programmic results*, the findings of this study required that accounting educators respond to the modification of the existing undergraduate accounting curriculum to include fraud education for accounting students and to also create the awareness for non-accounting students within the general business programs. For this reason, educators should involve accounting professionals in the education process to revamp accounting programs (Alabdullah et al., 2014; Gates et al., 2011; Seda & Kramer, 2009). This study was based on external auditors' perspectives on fraud education will *result in a changed intervention* by the accounting profession. The findings seemed to have provided the CPA firms with a plurality of specific and general strategies that could be used to detect corporate fraud (see Table 10). *Results of implementation*, there is the urgent need to implement the incorporation of fraud education into the undergraduate accounting programs to prepare accounting students for auditing work. When accounting students are equipped with fraud education in college, and also receive fraud education on-the-job based on the fraud courses and topics and strategies for fraud detection provided in this study; external auditors might be able to effectively detect corporate fraud in response to the expectations of corporate stakeholders (investors, creditors, and general public). *Applying the findings in terms of the practical utility*, the study has added a practical value to the accounting profession regarding fraud detection courses and topics to be considered in preparing accounting students to detect corporate fraud.

Summary

This qualitative study was conducted to explore external auditors' perspectives on the received fraud education in undergraduate accounting programs and competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs. All the participating external auditors provided insight on the topic of interest. Yin's (2011) five-phased research analysis involved compiling, dissembling, reassembling, interpreting, and concluding the process, which created a summary of findings generated from the themes (Yin, 2011). A total of 9 themes and 7 sub-themes emerged from the multiple-case study based on the 3 central research questions. This study results showed the following:

First, on gaps in fraud education received in undergraduate accounting programs, External auditors did not receive much fraud education in their undergraduate accounting programs for corporate fraud detection. Again, external auditors received adequate ethics education in their undergraduate accounting programs. The fraud education the external auditors received in college was not helpful/insufficient in detecting corporate fraud. Second, on gaps in fraud education received on-the-job, external auditors received much fraud education on-the-job than in their undergraduate accounting programs for corporate fraud detection and also received adequate ethics education on-the-job. The fraud education the external auditors received on-the-job was helpful in detecting corporate fraud. Again, other fraud education that could be taught on-the-job such as the specific and general fraud courses and topics were found and shown in Table 12.

Third, on detection of corporate fraud by external auditors, external auditors recognize the role of auditors in providing credibility to the financial reporting process,

but rejected fraud detection as their main pre-occupation. External auditors accepted their role in designing audit procedures to detect material misstatements because most of the study participants recognize the need to design audit procedures to detect material misstatements in the financial statements. On external auditors' experiences with the detection of fraud in audit practice, most of the external auditors interviewed have not detected corporate fraud in their auditing practice. Regarding the strategies typically used to detect and to prepare external auditors in practice, the strategies useful for preparing external auditors to detect corporate fraud were found, as detailed in Table 10. External auditors' expected competencies for corporate fraud detection after graduation was not helpful and they needed the competencies presented in Table 11. Other competencies required to prepare external auditors to detect corporate fraud were found to include the list provided in Table 12.

Fourth, external auditors have expressed the need to have fraud education integrated into the undergraduate accounting programs. Four strategies for incorporating fraud education into the undergraduate accounting programs, as follows: a standalone course, revamping the existing accounting curriculum with fraud education, a combination of both a standalone course and adding to accounting courses, and integrating into general business curriculum. Finally, on overall assessment, external auditors' fraud education in their undergraduate programs was not helpful in assisting them to detect corporate fraud. On the contrary, external auditors' fraud education on-the-job was helpful in corporate fraud detection. The interview data and document reviewed indicated that external auditors have not detected corporate fraud because they lacked fraud education in their undergraduate accounting programs. The concluding part of the data analysis phase is

discussed in Chapter 5. The findings from the study were beneficial and provided insights to inform the accounting profession regarding their education experience and as a result, accounting practitioners, educators, and accounting firms were the main beneficiaries of this research (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). Based on the findings that emerged from the themes within the interview data, recommendations for accounting practice have been proffered and also for further accounting research in Chapter 5. The chapter was concluded with a summary of findings.

Chapter 5: Implications, Recommendations, and Conclusions

Fraud education has not been incorporated into undergraduate accounting programs (Daniels et al., 2013; Meier et al., 2010; Miller & Becker, 2011; Nix & Morgan, 2013; Sisaye, 2011). As a result, corporate fraud has devastating effects on reputation, image, and credibility of companies, and also presents substantial losses to investors and creditors (ACFE, 2014; Alleyne & Elson, 2013; Lokanan, 2015; Lee et al., 2013; National Fraud Authority, 2013; Papoola et al., 2014). The FBI's National Incident-Based Reporting System has reported that fraud offenses have increased to 6% in 2012-2013 from 3% in 2011-2012 (Akkeren & Buckby, 2015; Galletta, 2015; Mangala & Kamari, 2015). As a result, accountants needed to enhance their knowledge by examining different contexts within which fraud occurred (Galletta, 2015). Consequently, fraud education has become an important learning area to the accounting profession because corporate fraud can be detected by external auditors when they are more fully prepared in their undergraduate accounting education with critical skills and competencies to detect fraud (Agarwal & Medury, 2014; Alshboul & Alrabba, 2014; Bolt-Lee et al., 2011; Kassem & Higson, 2012; Li & Byrnes, 2012; Ogoun & Obara, 2013; Plumlee et al., 2015; Rahman & Anwar, 2014; Trompeter, Carpenter, Desai, Jones, & Riley, 2013).

The problem addressed in this study was that external auditors have detected less than 5% of fraud cases because they lacked fraud detection topics and courses from their undergraduate studies (Agarwal & Medury, 2014; Alabdullah et al., 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Meier, Kamath, & He, 2010; Plumlee et al., 2015; Rahman & Anwar, 2014; Reidy & Theobald, 2011). The purpose of

this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the competencies, fraud education received in undergraduate accounting programs, and strategies to implement fraud detection education in the undergraduate accounting programs. Semi-structured interview format with open-ended questions was the method used to solicit responses from external auditors in the Northern Illinois area, as well as document review. The interviews elicited in-depth perspectives from the participants through a purposive snowball criterion sampling technique. The data collection and analysis conducted conformed to the NCU-IRB standards and informed consents protocols were observed (see Appendix C). Pseudonyms were utilized in the study to hide the identities of participating external auditors in the study. Yin's (2011) five-phased research analysis were utilized for the study. Yin's (2011) five-phased research analysis included compiling, dissembling, reassembling, interpreting, and concluding.

An exploratory multiple-case study research was utilized because there was limited scholarship on fraud education from the unique perspectives of external auditors, which were yet to be well-articulated within a fraud education contextual situation (Yin, 2011). For that reason, the results of this study likely informed direction for future accounting research on the topic (Yin, 2011). Chapter 5 covers a discussion of implications, recommendations, and conclusions. Specifically, the implications section presents the limitations of the study as well as interpretation of results, such as the following: first, how study results addressed the study problem and the alignment of the problem with the purpose statement. Second, how the study established significance in contributing to existing literature. Lastly, how practical the study was to the accounting

profession in general, and accounting practitioners, educators, and CPA firms in particular. The recommendation section allowed for insights to be provided through practical application of the study. The concentration of this research was based on societal and human problems and tended to contribute knowledge that permitted people to appreciate the nature of a problem so as to provide intervention that will enable human beings to effectively control their environment. As a result, beneficiaries of this study within the accounting specialty or profession will be guided by the understanding, findings, and explanations of research results (Patton, 2002). There were recommendations for future accounting research and the chapter concluded with a summary that emphasized the significant points for the study.

Implications

A total of 16 themes (made up of 9 major themes and 7 sub-themes) emerged from the 3 central research questions from the multiple-case study and these themes formed the basis of the findings of the study. These themes and sub-themes emerged from the responses of the external auditors because the external auditors' interview data provided major themes, such as: corporate fraud detection in practice, fraud education on-the-job, fraud education in college, fraud detection and mitigating strategies, expected competencies, overall assessment of fraud education in college, strategies for integrating fraud education, need for integration of fraud education, and overall assessment of fraud education on-the -job. The sub-themes included: other fraud detection education, fraud detection responsibility, education on doing what is right, helpfulness of perceived competencies, other fraud detection competencies, helpfulness of fraud education received on-the-job, and helpfulness of fraud education received in undergraduate

programs. The interview questions were designed to allow for the external auditors' open and in-depth expression of views on fraud education. The research questions are as follows:

Q1. How do external auditors perceive the fraud detection topics and courses from their undergraduate accounting programs prepared them to detect corporate fraud?

Corporate fraud detection. On external auditors' experiences with the detection of fraud in audit practice, most of the external auditors interviewed have not detected corporate fraud in their auditing practice. This view was corroborated by the responses received from study participants, which sought to indicate that they have not detected corporate fraud, however, some of the research participants have detected other forms of fraud. First, *payroll fraud* involving non-existent employees and non-compliance issues and *fraudulent billing*, where customers were either overbilled or doubly- billed when customers did not check their accounts regularly. Second, a $25,000 credit card fraud, this was due to a lag in reconciliation for a period of one and half months using refunds and duplication of transactions. Third, *inventory fraud*, this was committed at a lower level of management by constantly changing results of inventory counts. The experiences of one of the study participants were based on heresies, as follows: *sales fraud*, involving a manager, who manipulated sales numbers to get high commission; theft*/stealing*, people taking office computers without authorization, and *falsification of documents or check tempering*; where a check was issued for $3,000 and the employee receipt was for $535, but the employee altered the face value of the receipt by adding the number "three (3)" to read $3,535. Finally, *corporate fraud*, management of an entity

delayed the recognition of revenue in order to meet the threshold for a bonus because improper recognition of revenue is the most commonly used approach to perpetrate financial statements fraud (McMahon, Pence, Bressler, & Bressler, 2016, p.21); and *lapping*, the employee responsible for reconciliation was behind, and a third party took advantage to get into the accounting system using bank wire transfers outside of the organization.

Fraud education received on-the-job. On fraud education received on-the-job, external auditors did receive much fraud education on-the-job for corporate fraud detection. A majority of participants seemed to favor the view that much fraud education was received on-the-job. This view is inconsistent with that of Zager, Malis, and Novak (2016), who rejected such claim by asserting that there is the need to put in place systems of internal controls and to establish responsibilities and roles for the financial reporting chain for the detection and prevention of fraud. Likewise, Appiah (2015) found fraud training received from employers by accountants to be inadequate. Again, external auditors received adequate ethics education on-the-job because most of the research participants appeared to suggest that the ethics training they received in college was adequate.

Fraud education received in college. On fraud education received in undergraduate accounting programs, external auditors did not receive much fraud education in their undergraduate accounting programs for corporate fraud detection. Previous accounting scholarship (Kranacher, Morris, Pearson, & Riley, 2008; Peterson, 2003) attributed the factors that accounted for limited fraud education, to the following: the absence of room in the accounting programs, lack of appreciation of the nature of

fraud problem, absence of skills required to detect, prevent, and interrogate fraud issues. Most of the research participants seemed to suggest that they did not receive fraud education while in college. Furthermore, other researchers (Alabdullah et al., 2014; Daniels et al., 2013; Mitric et al., 2012; Nix & Morgan, 2013; Prabowo, 2013) also identified lack of exposure material on fraud such as forensic accounting, the definition of fraud, role of auditors, fraud investigation, remediation, prevention, and litigation advisory. Consequently, the nation's universities have been called upon to introduce fraud topics and courses in undergraduate accounting programs (Barman & White, 2014; Klimek & Wenell, 2011; Vladu & Cuzdriorean, 2013) to provide the needed foundation for professional experience and graduate studies (Brody et al., 2012; Hendi, 2013; Mitric et al., 2013).

Other fraud detection education. External auditors provided other fraud education they would have liked to have been taught in college as provided in a range of fraud detection courses and forensic accounting topics (see Table 12). Prior researchers have suggested critical thinking, professional skepticism (Avellanet, 2010; Beasley et al., 2010; Kassem & Higson, 2012; Plumlee et al., 2015). Other strategies include: fraud detection models, reconciliations, interviews; risk-based auditing, intentional strategy, analytical reviews, and data mining and analytics tools including Enterprise miner and Access to detect and prevent fraud (Appiah, 2015; Kassem & Higson, 2012; Plumlee et al., 2015; Quadackers, Groot, & Wright, 2014). Consequently, Armitage and Poyzer (2010) and Apostolou et al. (2015) have expressed the need for accounting students to pursue auditing as an important career path.

Responsibility for fraud detection. On detection of corporate fraud by external auditors, external auditors recognize their role in providing credibility to the financial reporting process, yet most external auditors do not have the fraud education to detect corporate fraud (Bajarano, 2013; Nix & Morgan, 2013; Ogoun & Obara, 2013). The responsibility for fraud detection and prevention was attributed to corporate management (Saeidi, 2012). Participants rejected fraud detection as their main pre-occupation. To them, the prevention and detection of corporate fraud is the responsibility of management but they were quick to add that they have an important responsibility and role to play in providing credible financial statements (Zager, Malis, & Novak, 2016). Armitage and Poyzer (2010) have suggested that accounting professors should tap into the wealth of knowledge and experience of practitioners to analyze their auditing classes.

Most of the study participants seemed to recognize the role of auditors in ensuring that financial reports presented by corporate management to shareholders were relevant, reliable, and credible. Nevertheless, accounting educators should factor the expectations of corporate stakeholders into the addition of fraud education in undergraduate accounting programs (Agarwal & Medury, 2014; French & Coppage, n.d; Higson, 2013; Mohamed et al., 2015; Okafor & Otalor, 2013; Tahir, Idris, & Ariffin, 2014). Similarly, participants unanimously attributed the function of fraud detection and prevention to management and as a consequence, rejected fraud detection as their responsibility. The uniqueness of the demands of the auditor required final allegiance to corporate stakeholders such as investors, creditors, and the general public (Jelinek, 2015) because external audits add credibility to corporate financial management (Enofe

& Amaria, 2011; Jelinek, 2015; Liu, Wright, & Wu, 2015). Consequently, the sweeping regulatory reforms has provided the required faith for corporate stakeholder in the accuracy and reliability of the financial reporting process, which has remained compromised due to pending fraud and associated corporate conflicts with auditors and the fraud triangle (Aghghaleh, Iskandar, & Mohamed, 2014; Roden, Cox, & Kim, 2016). External auditors accepted their role in designing audit procedures to detect material misstatements because most of participants recognized the need to design audit procedures to detect material misstatements in the financial statements.

Education on doing what is right. Students who take fraud courses such as ethics have exhibited better ethical reasoning after college (Kern & Weber, 2016; Miller & Becker, 2011). Furthermore, the research result of Tormo-Carbo, Segui-Mas, and Oltra (2016) indicated that students who have taken ethics in their accounting education consider such training as critical for inclusion in the curriculum. Fraud education has not been integrated into undergraduate accounting programs (Daniels et al., 2013; Meier et al., 2010; Miller & Becker, 2011; Nix & Morgan, 2013; Sisaye, 2011). The research participants have indicated that external auditors received adequate ethics education in their undergraduate accounting programs, because ethics education has been associated with the level of education (Alabdullah, Alfadhi, Yahya, & Rabi, 2014; Daniels, Ellis, & Gupta, 2013; Koumbiadis & Pandit, 2014; Modarres & Rafiee, 2011; Prabowo, 2013).

This finding is supported by a solid majority of participants, who appeared to suggest that the ethics training they received in college was adequate. Contrarily, most researchers have suggested for the inclusion of ethics training into the undergraduate accounting programs (Alabdullah et al., 2014; Daniels et al., 2013; Hendi, 2013;

Koumbiadis & Pandit, 2014; Modarres & Reflee, 2011; Prabowo, 2013). The research participants seemed to suggest that ethics education received both in college and on-the-job was adequate and helpful for fraud detection. The AACSB has suggested for the inclusion of ethics in undergraduate accounting programs and have also called for a detailed analysis and evaluation of the best approach of integrating ethics into the undergraduate accounting curriculum (Kleinsmith, Hewitt, Previti, & Kachur, 2016).

There is a contrary anecdotal evidence to this view that introducing education on doing what is right at the undergraduate level is too late because students come into the program with entrenched belief system, as a result, auditors should exhibit conventional moral reasoning else self-interest will be placed above societal good (Kleinsmith, Hewitt, Previti, & Kachur, 2016). The finding seemed to suggest that professional ethics is been taught in undergraduate accounting programs. Similarly, the ethics topics taught in colleges include the following: ethical code of professional conduct, auditor responsibilities, nature of ethics, fraud and related issues, and auditor liabilities. Furthermore, the contents of ethics taught have been designed like ethics code of conduct for independent auditors. Ethical skills, as shown in Table 1 are important for accounting programs because critical attributes are inculcated into the undergraduate accounting education, such as: accountability, credibility of financial statements, citizenship, respect, responsibility, truthfulness, transparency, loyalty, and virtue (Afford & Bebensee, 2010; Austill, 2011; Buys et al., 2012; Verschoor, 2015). Consequently, accounting literature (Armitage & Poyzer, 2010; Beets, 2011; Chaffey et al., 2011; Warinda, 2013) has suggested that ethics education in universities will add value to the accounting profession.

By way of comparison, 10 of 12 external auditors stated that the fraud education (including ethics training) they received on-the-job was adequate and helpful; 9 out of 12 participants also reported that the fraud education they received in their undergraduate accounting programs was not adequate. Additionally, almost all external auditors (11 of 12) mentioned that they have not detected corporate fraud in practice. Even the participant who reported the detection of corporate fraud involving improper recognition of revenue to meet threshold for bonus payment associated that fraud detection with the audit team. The findings were consistent with several studies, suggesting that external auditors have detected less than 5% of corporate fraud (ACFE, 2016; Alleyne & Amaria, 2013; Carpenter, Durtschi, & Gaynor, 2011; Chen, 2015; Daniels et al., 2013; Epps, Epps, & Campbell, 2015; French & Coppage, n.d; Nix & Morgan, 2013). Comparing and contrasting the two study "cases" of the experienced external auditors without a CPA designation (3 participants) and those with a CPA certification (9 participants), the perspectives of both groups were consistent with the overall perspectives of the study participants on the absence of fraud education in their undergraduate accounting studies.

The interview data showed that none of the external auditors without a CPA designation had ever detected fraud. Their responses included: "No fraud detection experience." (Jacob), "None, there are always basic errors but none like fraud." (Natalie), and "Not personally detected fraud." (Noah). Only one of twelve participants (also a CPA) reported on corporate fraud detection but attributed the fraud detection to the audit team. Nevertheless, additional 5 participants with a CPA designation reported the detection of other types of fraud involving: payroll fraud/non-compliance (Samantha),

credit card fraud (Daniel), bank wire transfer fraud (Liam), fraudulent billing (Nathan), and check tempering/inventory fraud (Emily), however, Emily's account was based on heresies. While all non-CPA cohort accepted fraud detection as the auditors' responsibility, 6 out 9 external auditors with a CPA designation accepted fraud detection as a responsibility but 3 out of 9 rejected fraud detection as the auditors' responsibility. This view is inconsistent with the prior findings of Bajarano (2013), Nix and Morgan (2013), and Ogoun and Obara (2013).

Q2. How do external auditors perceive the competencies needed for their undergraduate accounting programs to have better prepared them to detect corporate fraud?

Fraud detection and mitigating strategies. Strategies typically used to detect fraud and also prepare external auditors in practice involved those provided by participants involving fifty-eight general and twenty-nine specific strategies used in preparing external auditors for corporate fraud detection (see Table 10). External auditors could be prepared to detect corporate fraud because participants appeared to suggest the strategies listed in Table 10 as needed to typically prepare external auditors for fraud detection. According to Zager, Malis, and Novak, (2016), the commonest approach utilized in committing corporate fraud revolves around the use unacceptable techniques to overstate assets and understate liabilities because financial statements fraud is global problem covering misappropriation of assets (commonest) and fraudulent financial reporting (results in higher losses). Likewise, McMahon, Pence, Bressler, and Bressler (2016) have validated Dorminey, Fleming et al.'s (2012) assertion that corporate fraud was documented as early as the 1600s with the Tulip scandal of 1636, which was

the first instance of securities manipulation. However, accounting practitioners can provide insights to improve auditors' professional ability to detect corporate fraud (Bejarano, 2013; Effiok et al., 2012; Buchholz, 2012; Dorminey et al., 2010; Lokanan, 2015). Table 10 provides a list of strategies useful for preparing external auditors to detect corporate fraud. Strategies typically useful in the detection of fraud and also in the preparation of external auditors in practice were found.

Expected competencies. External auditors needed the competencies in Table 11, because all participants seemed to suggest there were competencies to be met by undergraduate accounting students. By way of comparison to Table 11 on the competencies needed by accounting students in their preparation for corporate fraud detection, the essential skills, included the following: critical thinking, ethics, financial expertise, internal controls, and reporting and analysis. These topics were designed to guide accounting educators and practitioners in assisting accounting students in the detection of corporate fraud and included, but were not limited to the following: rules of evidence, communication skills, accounting information system, financial data, expert witnessing, elements of fraud, fraud risk factors (fraud triangle), deterrence and prevention, and ethical issues (Daniels et al., 2013). The skills needed to prepare auditors include the following: technology, communication, accounting information systems, leadership, audit evidence reporting, professional skepticism, and regulatory compliance. Contrarily, Table 1, also shows the skills required to train forensic accountants, such as: arbitration, expert reporting, problem-solving, due diligence, investigation, corporate transactions, control systems, and responsiveness to economic issues. Additionally,

while fraud prevention and deterrence were the essential skills for an accountant, fraud detection and investigation were typically needed for a forensic accountant.

Seago (2012) has suggested the incorporation of skills required for entry-level auditors in undergraduate studies, while putting graduate focus on I.T auditing, enterprise risk management, and fraud examinations. In other related studies, the following courses have been identified by various researchers: investigation on conceptual issues, expert reporting, investigation of fraud, due diligence, mitigation of internal controls risk procedures, arbitration and judicial disputes, (Bressler, 2011; Imoniana et al., 2013), and fraud measurement approaches (National Fraud Authority, 2013) as being vital to the undergraduate educational process. The expected competencies for corporate fraud detection after graduation was not helpful among the external auditors interviewed. Auditors should be strong communicators in order to articulate their views professionally and confidently; and also be assertive rather that aggressive in order to illicit rapport, co-operation, and prompt responses from the clients (Seago, 2012). The accounting literature (Beasley et al., 2010; Mohammed & Tengku Akbar, 2011; Ole-Kristian et al., n.d) has placed premium on students' competencies (Apostolou et al., 2013, Apostolou et al., 2015; Beasley et al., 2010). Majority of employers expect universities to help students connect abilities with their choices on the job (Dzuranin, Shortridge, & Smith, 2013; Floyd et al., 2013; Rakestraw, 2014).

Overall assessment of fraud education received in college. The fraud education the external auditors received in college was neither helpful nor sufficient in detecting corporate fraud. Hansen and Peterson (2010) asserted that accounting students who received sufficient training on fraud risk factors, such as opportunity, incentive, and

rationalization (fraud triangle) were more precise in assessing fraud risk. For this reason, the questions that need to be addressed are: who commits fraud, how is fraud committed, and why is fraud committed (Gottschalk, 2016; Mitric et al., 2012; Prabowo, 2013). Mitric et al. (2012) and Prabowo (2013) offered the inclusion of criminology, fraud schemes, legal and regulatory framework, professional environment, fraud in digital environment, and professional perspectives.

To buttress this point, most of the study participants appeared to suggest that the fraud education they received while in college was either not helpful or inadequate. Accounting scholars (Andre, Pennington, & Smith, 2014; Carpenter, Durtschi, & Gaynor, 2011; Kassem & Higson, 2012; Meier, Kamath, & He, 2010) have proposed to the accounting profession to teach students on how to detect fraud because the cost of engagement of fraud specialists outweighs the benefits (Boritz et al., 2015). Researchers have argued that fraud education is missing from the accounting curriculum (Brody et al., 2012; Lawson et al., 2014; Mitric et al., 2012; Prabowo, 2013; van Zyl & de Villiers, 2011). As a result, ethical awareness can be built into an organization (Carcello, Hermanson, & Ye, 2011; Koumbiadis & Pandit, 2014; Mastilak, Matuszewski, Miller, & Woods, 2011).

Helpfulness of perceived competencies. A majority of participants seemed to suggest that the expected competencies were not helpful for accounting students from college. Scholars (e.g., Alzsila & Ikaunieks, 2014; Alabdullah et al., 2014; Bailey, 2010; Bressler, 2011; Colon, Badua, & Torrers, 2016; Daniels et al., 2013; Davis et al., 2013; Gates et al., 2011; Hussain et al., 2010; Mitric et al., 2013; Prabowo, 2013) have suggested the following fraud detection courses and topics: ethics, professional judgment,

and communication skills. Participants explained that no amount of classroom education on fraud detection would be adequate to prepare accounting students to detect corporate fraud in practice. According to them, no matter the skills the new graduates bring to the job market, there is yet the most important issue of experience that takes considerable time to develop as one grows to become a professional.

Professor Clune of the Kennasaw State University suggested that the universities can lay the groundwork for the employers to assist students to critically examine risk (Seago, 2012). Nevertheless, the marketplace requires auditors to possess key skills and core characteristics, and relevant credentials (Davis et al., 2013; Jelinek, 2015; Mohammed & Tengku Akbar, 2011; Osgerby & Rush, 2015; Siriwardane, Hu, & Low, 2014). As a result, Mitric et al. (2012) asserted that the detection of fraud is an interactive process involving transaction control, the establishment of corporate control systems, problem-solving, investigation, and process testing of transactions. Apostolou et al. (2013) and Apostolou et al.'s (2015) prior findings on basic competencies of accounting students included daily quizzes, class participation, and learning the material to develop the requisite competencies at the undergraduate level.

Prior research findings have called on accounting students to integrate their competencies in communication, leadership, and technology (Coetzee, Schmulian, & Kotze, 2014; Dulek, & Campbell, 2015; Elrod, Pittman, Norris, & Tiggeman, 2015; Hansen & Peterson, 2010; Lawson et al., 2014; Prabowo, 2013). As a result, on-the-job fraud detection experience was critical to corporate fraud education because auditors can detect fraud when they possess basic and expected competencies, such as quantitative techniques and analytical thinking (Apostolou et al., 2013; Beasley et al., 2010; Brewer

& Sorensen, 2014; Davis et al., 2013; Lawson et al., 2014; Hansen & Peterson, 2010; Mitric et al., 2012). Consequently, participants expressed a low or basic expectation of accounting students in the detection of corporate fraud. Nevertheless, the literature on expected competencies of the accounting students converge on leadership, ethics, internal controls, risk management and compliance, accounting information system; and external reporting and analysis (Bertomen & Marinovic, 2016; Gates et al., 2013; Lawson et al., 2014; Lawson et al., 2015). Lawson et al. (2014, 2015) and Tower-Clark (2015) validated analytical thinking, communication, quantitative techniques, and technology for accounting students' competencies.

Other fraud detection competencies. Other competencies required to prepare external auditors to detect corporate fraud to include the list the research participants provided as captured in Table 12. Auditors should evaluate fraud risk by looking for *red flags* and examine suspicious cases using professional skepticism (Kassem & Higson, 2012; Plumlee et al., 2015; WVU, 2007). Additionally, Davis et al. (2013) identified some characteristics and traits such as: professional responsibilities, forensic knowledge, planning and preparation, information gathering, law, dispute resolution, reporting, practice management, discovery, and expert testimony, and presentation. For example, Haskins & Sells (H&S) now Deloitte's case was to provide an admonition to accounting students in fraud deterrence so as to communicate the important role of professional skepticism in the professional judgment of auditors because the firm was held accountable for professional misconduct even though their decision could be supported by independent experts (Flesher & Previts, 2016). According to scholars (Apostolou et al., 2013; Apostolou et al., 2015; Davis et al., 2013; Enofe et al., 2012; Mohammed &

Tengku Akbar, 2011; Sajay, 2015), there is also the need for creativity because 80% of employers have suggested that the absence of competence of accounting students can be attributed to educational gaps. For that reason, Richardson and Gabbin (2016) have asserted that accounting firms can benefit from the recruitment of the best accounting students by drawing lessons from the way college football coaches recruit due to intense competition.

Comparing the two "cases" of experienced external auditors, the finding on the need for expected competencies of accounting students for corporate fraud detection is consistent with several studies, suggesting that various fraud detection courses and forensic accounting topics, as well as specific competencies can be utilized to prepare external auditors for corporate fraud detection (AICPA, 2005, 2015; Daniels et al., 2013; Nix & Morgan, 2013). Furthermore, the interview data showed that 100% of the Cohort without a CPA designation and 7 of 9 cohorts with a CPA designation confirmed based on 10 out of 12 (overall) from the two "cases" considered that there was basic or low expected competency for fraud detection.

Q3. How do external auditors perceive the strategies for integration of fraud education into the undergraduate accounting programs to better detect corporate fraud?

Strategies for integration of fraud education. Four strategies for incorporating fraud education into the undergraduate accounting programs are, as follows: (a) a standalone course, (b) revamping the existing accounting curriculum with fraud education, (c) a combination of both a standalone course and adding to accounting courses, and (d) integrating into general business curriculum. All-in-all, participants seemed to contemplate 4 strategies for incorporation of fraud education into the

undergraduate accounting programs. However, the option of integrating general ethics courses in general business education and specific ethics course in accounting and auditing programs as an effective way of addressing the moral lapses (Kleinsmith, Hewitt, Previti, & Kachur, 2016) is inconsistent with the perceptions of the study participants. As a result, if accounting students will be prepared in the identification and navigation of ethical debacles in their undergraduate education; then, accounting educators should devote depth and also reduce the time needed to a holistic program (Hendi, 2013; Imoniana et al., 2013; Mitric et al., 2013; Seda & Kramer, 2009). First, *as a standalone course* at the junior and senior level using case studies, I.T, ethics, and fraud detection but the course should not be provided as an elective but could be a core or specialization.

By way of comparison, Trung (2016) suggested that when educators are designing accounting curricula, professional ethics should be deployed as a separate course in order to assist accounting students to appreciate the important place of professional ethics in the accounting profession. Next, the *current accounting curriculum* could be *revamped* to include fraud detection courses and forensic accounting training. Accounting programs can be reformed to develop graduates with broader skills sets, preparation, and attributes such as: trustworthiness, dependability, punctuality, cleanliness, oral communication skills, and dependability (Ahadiat & Martin, 2015). Next, *a combination of two approaches* either as a standalone course or a combination with other accounting courses such as auditing or ethics. This perspective of participants has been corroborated by Davis et al. (2013), who argued that the common curriculum model favored business schools to provide a course or two in fraud accounting or

incorporate fraud education into the existing curriculum, and leave the rest to on-the-job experience.

While the concentration on real-world examples will be beneficial for students' inquisitiveness and perceptiveness, case studies will prepare accounting students with intangible skills such as problem-solving, intellectual curiosity, soft skills, critical thinking, and ability to listen to communicate effectively (Seago, 2012). According to participants, the fraud courses to be introduced should devote ample time on case studies, and personal experiences; but should be at least 2-hour course. Accounting literature has identified the following as ways of instructing accounting students: using cases, short movies, brainstorming, videos, and applications (Apostolou et al., 2013; Chen, Trofman, & Zhou, 2015; Diagle, Hayes, & Morris, 2014; Trofman, Bauer, & Humphrey, 2015). Additionally, ELM will be a vivid means of integration of fraud education modules to achieve learning objectives, the use of SEC files, interviews, using games, pictures, life experiences, webinars, hands-on activities, online-self-studies, use of workbooks ,coaching, textbook reading, seminar, and listening to lectures (Andre et al., 2014; Apostolou et al., 2013; Carpenter, Durtschi, & Gaynor, 2011; Cornell, Johnson, & Schwartz, 2013; Fajardo, 2014; Gentelli, 2015; Griffiths, 2015; Kassem & Higson, 2012; Khalil, 2015; Kolb, 1984; Meier et al., 2010; Nix & Morgan, 2013; Lofland & McNeal, 2014; Seda & Kramer, 2009).

There is a consensus among all accounting educators regarding the perceived importance of forensic accounting (Anonymous, September 2015) and the integration of certain forensic accounting topics in the accounting curriculum. This view is consistent with the findings of the study because the external auditors in this study were unanimous

on the importance of fraud education and urgent need to get it integrated into the undergraduate accounting programs. However, the suggestion that, fraud courses could be delivered jointly by educators, specialized bodies, and practitioners (Al-Hadrami & Hidayat, 2015; Huber & DiGabriele, 2014; Ramadhan, 2015) seemed to be inconsistent with their perspectives of integrating using the 4 strategies of incorporation. Tormo-Carbo et al. (2016) asserted that the effectiveness of integration strategies such as a standalone course, integration in other courses, or a combination of both approaches should be thoroughly examined with emphasis placed on the impact of fraud education (ethics) interventions.

Fraud education could be incorporated into the general business curriculum, but the class should be a fraud and forensic class utilizing projects, interviewing skills, and *real-world* examples. The critical skills required by employers for accounting graduates can be developed in the humanities because the social sciences and arts provide students with basic skills such as: good communication skills, critical thinking, breadth of mind, analytical skills, curiosity regarding variations and similarities (Crawford, 2016). Crawford's (2016) argument is consistent with the strategies proposed by this study's participants. More so, the incorporation of fraud education into the general business is not suggesting the humanities. Probably, the accounting profession could explore between integrating fraud education into general business or in the humanities.

There is the need to develop future accounting students into lifelong learners instead of training people through the traditional institutions of learning and to the job market (Crawford, 2016). By way of illustration, Ernst and Young (EY) viewed other disciplines to be important such as: science, psychology, mathematics, computer science,

and health (Crawford, 2016). The disciplines suggested by EY needs further scrutiny because courses like health, mathematics, and science are inconsistent with the findings of this research and the foundational literature reviewed for this study. EY has developed a value-added structured training program to inculcate technical skills into their graduates, thereby introducing innovation and transformation into action-based education on-the-job to make their graduates ready for work (Crawford, 2016). One such factor is prerequisite knowledge, which includes auditing, accounting, ethics, and business communication (Alabdullah et al., 2014; Barman & White, 2014; Bressler, 2011; Mitric et al., 2012; Prabowo, 2013).

Need for integration of fraud education. Audit teams lack the requisite training to identify fraud risk (Dickins & Reisch, 2012; Noviyanti & Winata, 2015). For that reason, external auditors have expressed the need to have fraud education integrated into the undergraduate accounting programs. As a result, CPA firms and accounting educators should be creative and innovative in bridging the gap between the undergraduate accounting education and graduate employment (Crawford, 2016). Prior accounting research findings (Alleyne & Amaria, 2013; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; French & Coppage, n.d; Mitric et al., 2012; Nix & Morgan, 2013) have proposed to higher education to incorporate significant modifications in accounting programs to prepare students in fraud detection skills. In furtherance of this viewpoint, almost all participants seemed to acknowledge the need to have fraud education incorporated into the undergraduate accounting programs, preferably using case studies. Consequently, scholars (Enofe, 2010; Fagarthy & Black, 2014; Hall, Pierce, Turnnell, & Walther, 2014; Kranacher & Stern, 2004; Pop-Vasileva, Baird, Blair, 2014)

have asserted that the accounting profession should develop solutions to barriers to accounting students' ability to detect fraud.

Overall assessment of fraud education received on-the-job. The fraud education the external auditors received on-the-job was helpful in detecting corporate fraud because fraud education can help auditors to detect fraud (Carpenter, Reimers, & Fretwell, 2011; Dellaportas & Hassall, 2013; French & Coppage, n.d; Sisaye, 2011). This finding was supported with the views of most of the participants, who seemed to suggest that the fraud education they received while on-the-job was very helpful. However, auditors need training covering ethics, teamwork, and honesty because it is necessary to detect the early signs of distorted financial reporting (Nelson & Below, 2012; Noviyanti & Winata, 2015; Uyar & Gungormus, 2011). Furthermore, there could be a lot more other fraud education that could be taught on-the-job. The accounting literature has identified fraud detection topics and courses that accounting students could receive, as follows: expert witnessing, interview skills, critical thinking, APs, accounting information system, evidence, investigation, arbitration, and communication studies (Alshboul & Alrabba, 2014; Bressler, 2011; Plumlee et al., 2015, Trompeter et al., 2014). Other scholars (Alabdullah et al., 2014; Adelean, 2015; Alleyne & Elson, 2013; Daniels et al., 2013; DeSimone & Buzza, 2013; Fiore, 2012; Gordon, 2015; Hussain et al., 2010; Imoniana et al., 2013; Koumbiadis & Pandit, 2014; Mitric et al., 2013; Nix & Morgan, 2013; Prabowo, 2013; Yallapragada et al., 2012) have proposed ethics, elements of fraud, fraud deterrence and prevention, and fraud triangle. Similarly, the following fraud detection courses and topics have been suggested as pivotal for accounting students: forensic accounting, auditing, criminology, definition of fraud,

accounting, business communication, the role of auditors, litigation advisory engagement, remediation, professional environment, fraud schemes, fraud in digital environment, and professional perspectives (Bressler, 2011; Hussain et al., 2010; Mitric et al., 2013; Prabowo, 2013).

Helpfulness of fraud education on-the-job. External auditors' fraud education on-the-job was helpful for corporate fraud detection. On accounting skills developed in the undergraduate programs and on-the-job, Crawford (2016) asserted as follows: first, the most critical problem affecting the accounting profession is the need to educate accounting students with a view to making them relevant in the future. An appreciable number of participants seemed to feel that their on-the-job fraud education has been helpful in fraud detection in the field even though, not structured, and also dependent on the manager or supervisor. As a result, there has been continuous emphasis of moral and ethical issues in the existing accounting and auditing courses. For this reason, accounting educators should place premium on creating ethical and moral awareness to equip students with ethical values (Anzeh & Abed, 2015; Dellaportas et al., 2014; Trung, 2016).

On-the-job training can be utilized after accounting students have been exposed to fraud education, including ethics in universities (Beets, 2011; Chaffey et al., 2011; Davis et al., 2013). Fraud education can be important to the accounting profession (Armitage & Poyzer, 2010). For example, the PriceWaterhouseCoopers (PwC's) training has concentrated on the generation of millennial through five core competencies involving: business acumen, leadership skills, global acumen, expertise in developing professional interaction, and exceptional technical abilities (O'Donnell, 2016). Audit managers and

supervisors have developed a training framework through *real-time* feedback and feed-forward plus formal programs, where audit partners periodically assembly to brainstorm on performance of the individual auditor within a team to ensure that auditors operate *at the level* from the *below level*, in order to function *at the next level*, or *significantly at the next level* (O'Donnell, 2016).

Helpfulness of college fraud education. Overall, external auditors' fraud education in their undergraduate programs was not helpful in assisting them to detect corporate fraud because all but five participant seemed to indicate that their undergraduate fraud education was not helpful at all. Auditor education can be highly linked with fraud detection among accounting students through fraud education (Alabdullah et al., 2014; Alleyne & Amaria, 2013; Apostolou et al., 2013; Carpenter, Durtschi, & Gaynor, 2011; Daniels et al., 2013; Meier et al., 2010; Miller & Becker, 2011; Nix & Morgan, 2013; Sisaye, 2011). Consequently, the fraud topics and courses to be taught in college should involve all topics viewed as critical to external auditors (Popoola et al., 2014: Ramadhan, 2015), with a view to making undergraduate accounting students relevant in the future. An appreciable number of participants seemed to suggest fraud detection strategies such as: analytical reviews, reconciliations, intentional strategy, interviews; data mining, risk-based auditing, and analytics tools such as Enterprise miner and Access as recommended by Appiah (2015), Kassem and Higson (2012), and Plumlee et al. (2015) for the detection and prevention of fraud.

Evaluation of the two study "cases" showed that all the cohort without a CPA designation expressed the need to urgently integrate fraud education into the undergraduate accounting programs as compared to a solid majority of 8 out of 9 CPA

cohorts who expressed similar views, but 1 CPA rejected the need for fraud education integration into the college accounting programs. The view of the two groups was similar and consistent with previous research findings (Al-Hadrami & Hidayat, 2015; Huber & DiGabriele, 2014; Ramadhan, 2015). The findings of this study mean as follows: first, the problem of external auditors detecting less than 5% of corporate fraud is corroborated by the findings of this study; and this is consistent with prior literature (Alleyne & Amaria, 2013; Carpenter, Durtschi, & Gaynor, 2011; Chen, 2015; Daniels et al., 2013; Epps, Epps, & Campbell, 2015; French & Coppage, n.d; Nix & Morgan, 2013). Second, the findings are consistent with the external auditors' lacked of fraud education (fraud detection courses and forensic accounting topics) in their undergraduate accounting programs (Daniels et al., 2013; French & Coppage, n.d; Mitric et al., 2012; Nix & Morgan, 2013). However, fraud education on-the-job appeared to be adequate.

The beneficiaries of this study (accounting practitioners, CPA firms, and educators) should focus on integrating fraud education into the undergraduate accounting studies. Currently, fraud education is offered 58% in graduate schools and professional specialization level, but 47% of undergraduate accounting students will not make it to the certification or graduate level (Davis et al., 2013, AICPA, 2013). Third, possible fraud detection strategies in auditing field have been provided by the outcome of this study (see Table 10). For example, the inclusion of APs (Alshboul & Alrabba, 2014; Plumlee et al., 2015), auditing, legal framework, forensic accounting, and accounting (Alabdullah et al., 2014; Gates et al., 2011; Hussain et al., 2010; Mitric et al., 2013; Prabowo, 2013) have been validated by prior accounting research studies.

The accounting profession appeared to be well served by ethics education at undergraduate level and on-the-job because external auditors seemed to determine that ethics education was adequate. The question is: if ethics as a component of fraud education was adequate for fraud education, how come fraud education has not been integrated into the undergraduate accounting programs? Or how come corporate fraud has not been detected by external auditors in practice? This study has confirmed to the accounting profession that the low corporate fraud detection at the undergraduate level is true and that to address this debacle, fraud education should be integrated into the undergraduate accounting programs, using the 4 strategies of integration. Participants unanimously expressed the need for integration of corporate fraud education. The study has given a number of competencies of accounting students and strategies for corporate fraud detection (see Tables 6, 7, and 8). Furthermore, the study has identified other types of fraud other than corporate fraud which were perpetrated including: theft, credit cards, fraudulent billing, payroll, and inventory. Consequently, external auditors should focus attention on the detection of other types of fraud as well (ACFE, 2016). The expected competencies for accounting students from college has been determined by the external auditors (participants) to be not helpful because they seemed to deem it as low or basic. On the basis of this study, the accounting profession should take a closer look at the AICPA's proposal in the light of this evidence to aggressively address the situation (AICPA, 2013). Consequently, the profession can make use of the other competencies provided by the external auditors in this study. The results of this study on fraud education will likely inform the accounting profession on their perception of fraud education at the undergraduate accounting programs.

The practical insight offered by this study is that the low corporate fraud detection by external auditors is supported by this study. Most of the research participants seemed to suggest that they have not detected corporate fraud and the lack of fraud education in the undergraduate accounting programs is validated in this study because the fraud education received by the participants in their undergraduate accounting programs was not adequate as compared to the fraud education received on- the- job, which was found to be adequate. Akhidime and Uagbale-Ekatah (2014) found that forensic accounting is not a substantial component of the educational and professional curricula of universities and professional bodies for the development of accountants in Nigeria. As a result, the accounting education programs can include forensic accounting techniques in the training of undergraduate accounting students through practical and theoretical classes (Alabdullah et al., 2014). For that reason, there is the need to introduce fraud education in both academic and professional institutions and also retrain existing accountants and auditors (Akhidime, & Uagbale-Ekatah, 2014; Al-Hadrami & Hidayat,2015; Huber & DiGabriele, 2014; Popoola et al., 2014; Ramadhan, 2015).

There is the urgent need to integrate fraud education into the undergraduate studies using any of the following strategies: a standalone course, a combination of a standalone and integrating into existing accounting programs, revamping the current accounting programs, and inclusion in general business education. However, most of the participants appeared to favor a standalone course strategy for accounting students and a general fraud awareness into business education.

The results of this study addressed the problem of the study because the findings confirmed the existence of the study problem on the low corporate fraud detection of

external auditors from their lack of fraud education during their undergraduate educational experience. Initially, auditors (both internal and external) were expected to guard against fraud through the traditional audits but audits have failed to curtail the fraud debacle because accounting students trained under the current programs tend to possess less skills, knowledge, and capabilities for the detection of fraud; as a result, the Nigerian Companies and Allied Matters Act of 2004 has permitted forensic accounting measures to be integrated into traditional audits for effective fraud detection (Akhidime, & Uagbale-Ekatah, 2014; Johnson-Rokosu,2015). The study outcome seemed to have provided strategies for the integration of fraud education, fraud detection courses and topics; as well as fraud detection strategies for preparing external auditors to detect corporate fraud in practice (see Tables 9 and 10). The study has determined an urgent need for integration of fraud education in undergraduate accounting studies. Consequently, there is the need to avoid utilizing education based on lectures alone and gravitate towards other pedagogical approaches, such as uncertainty analysis, case studies, and ethical reasoning (Brailey, 2010; Seda & Kramer, 2009).

This study has contributed to the existing scholarly and professional literature on: corporate fraud detection, competencies of accounting students, and strategies for corporate fraud detection. The accounting profession will find this study practical because the findings of the study seemed to have provided the accounting profession with specific and general fraud detection courses and forensic accounting topics to be considered in preparing accounting students in college (see Table 12). Prior accounting research findings (Alabdullah et al., 2014; Bolt-Lee et al., 2011; Bressler, 2011; Daniels et al., 2013; Imoniana et al., 2013; Li & Byrnes, 2012) have suggested that the learning

objectives based on the contents of fraud education should be concentrated on the need to prepare external auditors using requisite training to equip them to detect corporate fraud. For this reason, this study has provided insight to the accounting profession regarding the general and specific strategies that could be used in detecting corporate fraud (see Table 10) in auditing practice. According to Peterson (2016), the 21st century required a concerted and co-operative strategies to craft an auditing model that will relate gaps subsisting among audit performance and corporate stakeholders' expectation, when adjusted and calibrated will permit the accounting profession to start proper dialogue on the issues of fraud education.

The study has provided the accounting profession with expected, as well as, other competencies of accounting students in detecting corporate fraud (see Table 11 and 12). This study has also provided the accounting profession with 4 strategies that educators and university administrators can use to incorporate fraud education into the undergraduate accounting studies, involving a standalone course, a combined approach, revamped accounting curriculum, and general business. In furtherance of this finding, the suggestions made by prior accounting research findings (Apostolou et al., 2013; Dellaportas & Hassall, 2013; Gates et al., 2011; Gates & Sullivan, 2011; Lofland & McNeal, 2014; Seda & Kramer, 2009) should be observed as follows: the first one is that accounting faculty should utilize creative approaches such as: *real-world* experience, a residency, consulting, and internship to enable accounting students to use their appreciation of issues that are happening in the world. The second point is that the deployment mechanism to be used in the learning process should not only cover

textbooks, but also case studies, seminars, videos, workbooks, research projects, and guest speakers.

The practical insight offered by this study is that the low corporate fraud detection by external auditors is supported by this study. Most of participants seemed to suggest that they have not detected corporate fraud and the lack of fraud education in the undergraduate accounting programs is validated in this study because the fraud education received by the participants in their undergraduate accounting programs was not adequate as compared to the fraud education received on- the- job, which was found to be adequate. The accounting educational programs can include forensic accounting techniques in the training of undergraduate accounting students through practical and theoretical classes (Alabdullah et al., 2014). There is the urgent need to integrate fraud education into the undergraduate accounting studies using any of the following strategies: a standalone course, a combination of a standalone and integrating into existing accounting programs, revamping the current accounting programs, and inclusion in general business education. However, most of the participants appeared to favor a standalone course strategy for accounting students and a general fraud awareness into business education. Johnson-Rokosu (2015) and Shinde et al. (2015) found the incorporation of a separate fraud detection course as the best fraud education strategy and suggested that variables such as: governmental requirements, availability of resources, need for modification, involvement of faculty, stakeholders' opinion, and accreditation agencies should be factored into the integration.

The results of this study addressed the problem of the study because the findings confirmed the existence of the study problem on the low corporate fraud detection of

external auditors from their lack of fraud education during their undergraduate educational experience. The study outcome seemed to have provided strategies for the integration of fraud education, fraud detection courses and topics; as well as fraud detection strategies for preparing external auditors to detect corporate fraud in practice (see also Tables 9 and 10). The study has established an urgent need for integration of fraud education in undergraduate accounting studies (Appiah, 2015; Shinde et al., 2015). Akhidime and Uagbale-Ekatah (2014) asserted that forensic accounting has become a growing area of interest to stakeholders such as practitioners, investors, government, and regulatory bodies in Nigeria because there has been a steady increase in demand for complex and sophisticated auditing and accounting techniques for the prevention, detection, and correction of fraud. Forensic accounting is recommended to be an integral part of the professional and academic curricula of institutions, and could also be a specialization at the graduate level (Akhidime, & Uagbale-Ekatah, 2014; Johnson-Rokosu, 2015). Consequently, there is the need to avoid utilizing education based on lectures alone and gravitate towards other pedagogical approaches, such as uncertainty analysis, case studies, and ethical reasoning (Brailey, 2010; Seda & Kramer, 2009).

The problem that was investigated was that external auditors have detected less than 5% of fraud because they lack fraud education in their undergraduate accounting programs. The purpose of this qualitative multiple-case study was to explore external auditors' perspectives regarding the fraud education that prepared them to detect fraud in their undergraduate accounting programs. Nevertheless, prior findings of accounting scholars (Daniels et al., 2013; Meier et al., 2010; Prabowo, 2013) have suggested that all

problems regarding the implementation of fraud education should be addressed in order to respond to the needed fraud education.

In furtherance of the purpose of this study, a purposive sample of 12 external auditors were used in a multiple-case study research methodology to explore their perceptions; and their perspectives was sufficient in responding to the problem under study. Consequently, the findings of the study adequately addressed the research questions, the study problem, the research purpose; and the findings of the study have established significance on the perspectives of external auditors' regarding the gap of fraud education received in their undergraduate accounting programs, the competencies needed, and the strategies needed to detect corporate fraud. This study has contributed to the existing scholarly and professional literature on: corporate fraud detection, competencies of accounting students, and strategies for corporate fraud detection.

The accounting profession will find this study practical because the findings of the study seemed to have provided the accounting profession with specific and general fraud detection courses and forensic accounting topics to be considered in preparing accounting students in college (see Table 12). Prior accounting research findings (Alabdullah et al., 2014; Bolt-Lee et al., 2011; Bressler, 2011; Daniels et al., 2013; Imoniana et al., 2013; Li & Byrnes, 2012) have suggested that the learning objectives based on the contents of fraud education should be concentrated on the need to prepare external auditors using requisite training to equip them to detect corporate fraud. For this reason, this study has provided insight to the accounting profession regarding the general and specific strategies that could be used in detecting corporate fraud (see Table 10) in auditing practice. According to Peterson (2016), accounting profession should start a

proper dialogue on the issues of fraud education in the 21st century through a co-operative and concerted strategies to craft an auditing model that will be associated with audit performance and the expectations of corporate stakeholders.

The study has provided the accounting profession with expected as well as other competencies of accounting students in detecting corporate fraud (see Table 11 and 12). This study has also provided the accounting profession with 4 strategies that educators and university administrators can use to incorporate fraud education into the undergraduate accounting studies, involving a standalone course, a combined approach, revamped accounting curriculum, and general business. In furtherance this finding, the suggestions made by prior accounting research findings (Apostolou et al., 2013; Dellaportas & Hassall, 2013; Gates et al., 2011; Gates & Sullivan, 2011; Lofland & McNeal, 2014; Seda & Kramer, 2009) should be observed as follows: the first one is that accounting faculty should utilize creative approaches such as: *real-world* experience, a residency, consulting, and internship to enable accounting students to use their appreciation of issues that are happening in the world; and the second point is that the deployment mechanism to be used in the learning process should not only cover textbooks, but also case studies, seminars, videos, workbooks, research projects, and guest speakers. The specific statement of Daniel (participants) is provided below:

> There were elective classes which were extension of auditing. I have them helpful but I find seminars very helpful. I find the practical experience as very beneficial instead of what the textbooks point to could be circumvented. For example, the journal of accountancy, a monthly magazine, talks about fraud and taking of fraud

> examinations. There is more than one answer so by reading it hits home because articles are written based on peoples' experiences.

Daniel has suggested that auditing and ethics clubs should be introduced in colleges:

> I would have liked to get- together into audit clubs and ethics clubs, by instructors putting together an auditing club or ethics club using posters for people to join instead of establishing other clubs in schools. These clubs can talk about fraud compliance and ethics in general because by working with peers, networking groups will be formed. It will be effective nonetheless-adding more knowledge in addition to what is known-thinking beyond the box will be another avenue given because people use intelligence for the worst things instead of for good fraud examinations. There is more than one answer so by reading it hits home because articles are written based on peoples' experiences.

This view was validated by one of the participants, who rejected the use of textbooks alone for teaching because publishers will sell the books that has been printed already at all cost such that up-to-date issues will not be contained in textbooks.

The significance of this research culminated in the incorporation of fraud detection courses and topics into the undergraduate accounting programs and also the findings of this study may also be applied to shed light to inform the accounting profession on their education experience. The identities of external auditors were kept confidential. Accounting practitioners, educators, and accounting firms were the main beneficiaries of this research (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). The outcome of the dissertation study

possibly added value to accounting practices since it was the maiden examination through research works on external auditors' perspectives regarding the fraud education from undergraduate accounting programs that prepared them to detect fraud. This was against the backdrop of limited scholarship on the topic of interest (Apostolou et al., 2013; Apostolou et al., 2015; Ramadhan, 2015).

Specifically, CPA firms will find the outcome of this study beneficial because the study has identified fruad education (including ethics) that are needed on- the- job as the best way of training accounting graduates about fraud detection because participants have found on-the-job fraud training to be helpful (see Table 9 and 10), however, participants have a low expected competency about undergraduates from college (see Tables 10 and 11). As suggested by previous accounting literature (Agarwal & Medury, 2014; French & Coppage, n.d), the incorporation of fraud education should factor corporate stakeholders' expectations because the current accounting programs do not have much fraud education at the undergraduate level. For that reason, the following strategies can be used to incorporate fraud education to prepare accounting students. Participants have expressed unanimous need for integration of fraud education using four approaches of a standalone course, a combined approach, revamped accounting curriculum, and general business. Educators will be informed about the value and importance of providing sufficient information to assist in the preparation of accounting students in their auditing practice (see Table 9, 10, 11, and 12). Most of the research participants seemed to favor a standalone course strategy. The perspectives of external auditors provided insight into the issue of fraud education because accounting practitioner will be informed about the preparation of accounting students for corporate fraud detection.

Accounting practitioners will be a beneficiary of the outcome of this study in that a list of fraud detection strategies have been provided as a way of assisting the profession in the detection of corporate fraud (see Table 10). Additionally, this study has also identified other types of fraud participants have detected such as: credit card fraud, fraudulent billing, payroll and inventory. As a result, the accounting profession should investigate these other types of fraud. Similarly, the accounting profession should conduct a large-scale investigation into the low corporate fraud detection by external auditors because the findings of this study suggest that the phenomenon under this study was valid. Consequently, fraud education is one best way by which future external auditors can be prepared to detect corporate fraud using the four approaches of integration discussed above. Likewise, on-the-job corporate fraud training should be sustained and improved because the participants appeared to suggest that the current approach is unstructured, unsystematic, not based on problem-solving approach, and should not be subject the particular manager or supervisor. The outcome of the study will be assisting the accounting profession about their educational experience to address deficiencies in their education.

The most important limitation of the study was the few literature works on the topic of interest, but this was mitigated by expanding the search in the library databases to include more keywords. To overcome the difficulty in recruitment of participants, an application was resubmitted to the NCU-IRB for modification of the sampling design to include two other professional accounting bodies (ICPAS and ACFE) to the IAAI's to broaden the recruitment base of potential members to 99,442 within the sampling frame. Additionally, the sampling technique was changed from purposive criterion random

sampling to a purposive snowball and criterion sampling, and permitted the identification of prospective participants due to the relevant and plentiful data provided for this qualitative study (Yin, 2011). As a result, prospective accountants recommended interested colleagues for the study through the provision of information (Yin, 2011).

The original plan of the study was to utilize a purposive sample of 15 external auditors but it was hard and difficult to get the required and anticipated participants to grant a face-to-face interview during fieldwork, even after an NCU-IRB application for modification to study protocols was granted. However, the perspectives of the 12 external auditors who agreed to participate and were consequently interviewed were determined to be adequate in addressing the research questions. Furthermore, to prevent recall errors, the responses of participants during the open-ended interview using semi-structured format were read back to them and the technique validated the study data. It was proposed to use two groups of external auditors: one "case" consisting of 6 participants with CPA designation and another "case" comprising 9 participants without a CPA certification. During fieldwork, 9 external auditors with CPA designation actually agreed to be interviewed for the study and 3 external auditors without CPA certification actually took part in the study. The perspectives of these two groups of external auditors was established to be enough to shed light on the phenomenon under study.

Again, to protect the privacy to the participating external auditors, the face-to-face interviews using semi-structured interview were conducted in secured rooms in public libraries. Some limitations of the study are typical qualitative issues. It is rather hard to generalize the findings to the entire population of external auditors in the world. However, I tried to make the findings as generalizable as I could by choosing several

participants who had an average of 4.5 years of work experience in Northern Illinois. Also, while the qualitative data provided rich information about the external auditors' perceptions on the different matters pertaining to the fraud education received in undergraduate accounting programs, competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs; the sample size was small. However, as I mentioned earlier, in qualitative research the sample size depends on when saturation of data occurs (Marshall, 1996) and since I obtained data saturation at about 11 participants, the final sample of 12 is determined to be more than adequate. Additionally, the limitation of using 12 external auditors, helped to exact deeper meaning from their responses and provided their perspectives on fraud education.

Recommendations

The outcome of this study supported six recommendations for practical accounting application. The first recommendation is that specific and general fraud education (fraud detection courses and forensic accounting topics) should be integrated into the undergraduate accounting programs to prepare accounting students for corporate fraud detection after graduation. Seventy-five percent of external auditors seemed to suggest that they did not receive much fraud education in their undergraduate accounting programs. The second recommendation is linked to the preparation of external auditors, utilizing multiple studies to detect other financial frauds such as credit cards fraud, payroll frauds, fraudulent billing, inventory, and theft or stealing. Ninety-two percent of external auditors appeared to imply that they have not detected corporate fraud in their

auditing practice, however, some of them have detected other types of fraud such as payroll, credit card, check tempering, and fraudulent billing.

Another recommendation to the accounting profession is to include both general and specific strategies for corporate fraud detection in the preparation of external auditors to enhance their corporate fraud detection. External auditors have provided the accounting profession with both general and specific strategies typically used to prepare them to detect fraud (see Table 10). Additionally, the external auditors are to be equipped with general, special, integrated, and fraud detection competencies and skills to make them effective auditors. Participants have provided general, specific, integrated, and fraud detection skills and competencies needed by accounting students to prepare them to detect fraud (Table 11 and 12). The strategies of integration of incorporating fraud education into the undergraduate accounting programs should be either of a standalone course, or revamped accounting curriculum, or a combination of a standalone and adding to existing accounting programs.

Half of the external auditors offered a standalone course, one-third of the auditors suggested a combination of a standalone course and including fraud education in existing accounting programs, and the remaining seventeen percent suggested revamping the current accounting programs and also including fraud education into the general business curriculum. The integration of fraud awareness course should be integrated into the general business curriculum. Likewise, the accounting profession should engage corporate stakeholders such as investors and creditors in a dialogue regarding the expected responsibilities of the external auditors within the financial reporting framework. Seventy-five percent of external auditors recognized their role in providing

credibility to the financial reporting process and fifty-eight percent of them accepted their role of designing appropriate audit procedures to detect material misstatements but most of them have rejected fraud detection as their pre-occupation.

On the basis of the results of this study, four recommendations are proffered for future accounting research, as follows: first, this study is based on only external auditors in the Northern Illinois area, with inclusion criteria of a bachelors' degree and 1 year auditing experience but future research studies could compare the perspectives of educators, corporate management, and internal auditors to that of external auditors. Ninety-two percent of the external auditors have expressed the need to have fraud education incorporated into the undergraduate accounting programs and this viewpoint is supported by sixty-eight percent of scholars such as Alabdullah et al. (2014), Daniels et al. (2013), Meier et al. (2010), and Nix and Morgan (2013). The study can be replicated in other geographic locations across the nation and beyond, because corporate stakeholders' expectations have resulted in a shared responsibility among auditors, board, and audit committees to ensure adequate preparation of external auditors for corporate fraud detection (Agarwal & Medury, 2014; Brody et al., 2012; Moffett & Grant, 2011; Reidy & Theobald, 2011; Yallapragada et al, 2012). Replication accounting this research in other geographic locations will help the profession to either confirm or disconfirm the outcome of this study. Second, the study can be conducted on the same problem using the same purpose to other stakeholder such as corporate management and internal auditors. Ninety-two percent of external auditors have not detected corporate fraud in their auditing practice because a solid majority (seventy-five percent) did not receive fraud education in their undergraduate accounting programs.

Third, this study utilized an exploratory multiple-case study of external auditors' perspectives of fraud education, competencies and strategies the prepared them to detect corporate fraud; future accounting research could concentrate the study using different qualitative research methodology such as: ethnography, grounded theory, and phenomenology to examine the phenomenon of fraud education. While seventy-five percent of external auditors seemed to suggest that the fraud education they received on-the-job was helpful in assisting them to detect corporate fraud; fifty-eight percent seemed to suggest that the fraud education they received in their undergraduate accounting programs was not helpful in assisting them to detect corporate fraud. Finally, this study's results on the strategies for corporate fraud detection and fraud detection courses and topics should be subjected to further large scale scrutiny by accounting scholars using quantitative research methods such as: regression analysis, correlational and surveying to confirm or disconfirm the association between them. External auditors have provided specific and general fraud detection courses and topics (see Table 9), and general and specific strategies typically utilized to prepare them for fraud detection (see Table 10). The association between corporate fraud detection on one hand, and fraud detection courses and topics (both general and specific), typical strategies for corporate fraud detection on the other hand can be examined by accounting researchers.

Conclusions

Fraud could be fought through education, enforcement of sound policies, and the conduct of regular audits (Albrecht et al., 2015; Mouton, 2013; O'Reilly, 2015; Swedberg, 2014), yet there was a lack of knowledge among the financial reporting supply chain including: external auditors, board of directors, management, and audit committees

(Chambers, Daly, Fornelli, & Hollein, 2014). Therefore, an integrated or holistic approach to fraud education was required to provide regular refresher training to address new fraud threats from scandals due to the failure of external auditors to detect accounting irregularities (Chambers et al., 2014; Soltani, 2014; Tiffen, 2015). The purpose of this qualitative exploratory multiple-case study was to explore external auditors' perspectives on the received fraud education in undergraduate accounting programs and competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs. Semi-structured interview format with open-ended questions and document review were the methods utilized to solicit responses from external auditors in the Northern Illinois area.

Accounting practitioners, educators, and accounting firms likely benefitted from this research (Alabdullah et al., 2014; Al-Hadrani & Hidayat, 2015; Gates et al., 2013; Kassem & Higson, 2012). The outcome of the study likely informed direction for future accounting research because fewer research works existed on fraud education (Apostolou et al., 2013; Apostolou et al., 2015; Ramadhan, 2015; Yin, 2011). Nine major themes and seven sub-themes based on the three central research questions emerged from the study. The themes provided insights and also ensured a deeper understanding of the received fraud education in undergraduate accounting programs and competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs.

The following were the significant themes that emerged from the study: fraud education received in college, corporate fraud detection in practice, fraud education received on-the-job, expected competencies, fraud detection and mitigating strategies,

overall assessment of fraud education on-the-job, need for integration of fraud education, strategies for integrating fraud education, and overall assessment of fraud education in college. The sub-themes involved: fraud detection responsibility, education on doing what is right, other fraud detection education, helpfulness of perceived competencies, other fraud detection competencies, helpfulness of fraud education received in undergraduate programs, and helpfulness of fraud education received on-the-job. The outcome of this study supported six recommendations for practical accounting application. The first recommendation is that specific and general fraud education (fraud detection courses and forensic accounting topics) should be integrated into the undergraduate accounting programs to prepare accounting students for corporate fraud detection after graduation (see Table 9). This recommendation is supported by previous accounting research findings that suggested that external auditors lacked fraud detection topics and courses from their undergraduate studies (Alabdullah et al., 2014; Meier, Kamath, & He, 2010; Plumlee et al., 2015).

The second recommendation is linked to the preparation of external auditors using various studies to detect other financial frauds such as credit cards fraud, payroll frauds, fraudulent billing, inventory, and theft or stealing (ACFE, 2014, 2016; Kern & Weber, 2016). Another recommendation to the accounting profession is to include both general and specific strategies for corporate fraud detection in the preparation of external auditors to enhance their corporate fraud detection (see Table 10). Multiple studies will validate this study's results on: (a) the strategies for corporate fraud detection (Table 10), fraud detection courses and topics (Table 9), and the competencies needed to prepare external auditors (Table 11 and 12). To this end, the debate on fraud detection versus detection of

material financial misstatements (Agarwal & Medury, 2014; Free & Murphy, 2015; Gbadago, 2015; Ihendinihu & Robert, 2014; Saeidi, 2012) should be settled once and for all. The third recommendation is that the profession should be engaged in a dialogue with corporate stakeholder such as government, creditors, investors, and the general public on the exact responsibilities of the external auditor in the financial reporting process.

Accounting scholars and ACFE (2014) have made prior similar findings to the effect that external auditors have detected less than 5% of fraud cases (Agarwal & Medury, 2014; Beasley et al., 2010; Gupta & Gill, 2012; Kassem & Higson, 2012; Rahman & Anwar, 2014; Reidy & Theobald, 2011). The fourth recommendation is that external auditors are to be equipped with general, special, integrated, and fraud detection competencies and skills to make them effective auditors (see Table 11 and 12). When accounting students receive valuable skills (competencies) for their education, their employers will save millions of dollars over time. As a result, auditors can better detect corporate fraud when they receive proper training in fraud detection (Alleyne & Elson, 2013; Andrea et al., 2014; Bolt-Lee et al., 2011; Imoniana et al., 2013; Mohamed et al., 2014; Yallapragada et al., 2012).

The fifth recommendation is that the strategies of integration of fraud education into the undergraduate accounting programs should be either of a standalone course, or revamped accounting curriculum, or a combination of a standalone and adding to existing accounting programs. However, the integration of fraud awareness course should be integrated into the general business or humanities curriculum. This suggestion has been validated by prior research (Ahadiat & Martin, 2015; Agarwal & Medury, 2014; Andre et

al., 2014; Finch et al., 2014; Gates et al., 2014; Ihendinihu & Robert, 2014; Matarneh et al., 2015; Shinde et al., 2015; Tran, 2015). Likewise, the accounting profession will be guided through fraud education integration into the undergraduate accounting programs as follows*: One*, the Northern Illinois University College of Business in 2006, created awareness of ethical decision-making as a skill through their Build Leaders using Ethics Framework (BELIEF) program (Dzuranin, Shortridge, & Smith, 2013; Pope, 2015). Two, in 2007, West Virginia University also incorporated corporate fraud education into its accounting programs with emphasis on professional skepticism using anomalous cases (Fleming et al., 2008; Kassem & Higson, 2012; Plumlee et al., 2015; WVU, 2007).

The Gonzaga University in Washington state has introduced the Justice for Fraud Victim Project, which will invariably be developed into a full Center for Forensic Accounting (Kern & Weber, 2016; Gonzaga University, 2016). The project was developed as follows: the local and federal law enforcement agencies and prosecutors recommended financial frauds for investigation, the university admitted students with communication, critical thinking, and teamwork competencies for the program, and the local chapter of the ACFE members acted as mentors for the students (Kern & Weber, 2016). The estimated value of forensic accounting services ranged from $436,425 to $920,125 translating into $24,000 per case, and this was beyond the mean of most members of the local community (Kern & Weber, 2016). According to Gonzaga University, the objective of the course was to integrate fraud accounting into the accounting curriculum through the provision of hands-on experience in problem-solving and the analysis of cases (Kern & Weber, 2016). The course was designed through a combination of classroom and experiential learning using practical investigation of actual

cases which culminated into the prosecution of culprit (Kern & Weber, 2016). The accounting profession should be guided by the implementation approaches of these universities. Finally, the accounting profession should engage corporate stakeholders including financial analysts, investors, creditors, and the public in a dialogue regarding the expected responsibilities of the external auditors in financial fraud detection.

Four recommendations are proffered for direction of future accounting research, as follows: first, this study is based on only external auditors in the Northern Illinois area, with bachelors' degree, and 1 year auditing experience but future research studies could compare the perspectives of educators, corporate management, and internal auditors to that of external auditors. This will enable the accounting profession to compare and contrast the similarities and differences in perspectives within the financial reporting supply chains. Second, the study can be replicated in other geographic locations across the nation and beyond, because corporate stakeholders' expectations have resulted in a shared responsibility among auditors, board, and audit committees to ensure adequate preparation of external auditors for corporate fraud detection (Agarwal & Medury, 2014; Brody et al., 2012; Moffett & Grant, 2011; Reidy & Theobald, 2011; Yallapragada et al, 2012). Third, the study can be conducted on the same problem using the same purpose to other stakeholder such as educators, university administrators, corporate management, and internal auditors. Lastly, this study utilized an exploratory multiple-case study of external auditors' perspectives of fraud education, competencies and strategies the prepared them to detect corporate fraud; future accounting research could concentrate the study using different qualitative research methodology such as: ethnography, grounded

theory, and phenomenology to examine the phenomenon of fraud education to confirm or disconfirm the results of this study.

External auditors provided their findings on fraud education against the background of corporate fraud detection. The findings were drawn from the themes and were similar to recent research findings: (a) which shed light on the fraud education received in undergraduate accounting programs (Alabdullah et al., 2014; Apostolou et al.,2013; Apostolou et al., 2015, Daniels et al., 2013; Hendi, 2013; Meier et al., 2010). (b) Competencies needed to detect fraud (AICPA, 2005, 2015; Bailey, 2010; Bressler, 2011; Brody et al., 2012; Lawson et al., 2015, 2013; Plumlee et al., 2015), and (c) strategies to implement fraud detection education in the undergraduate accounting programs (Ahadiat & Martin, 2015; Agarwal & Medury, 2014; Andre et al., 2014; Finch et al., 2014; Gates et al., 2014; Ihendinihu & Robert, 2014; Matarneh et al., 2015; Shinde et al., 2015; Tran, 2015). Based on the implications of findings of the study, recommendations have been made for practical accounting application and further accounting research.

Some recommendations are presented to the accounting profession to ensure that external auditors received adequate fraud detection training in both undergraduate accounting programs and on-the-job. The rational for this recommendation is that evidence will be provided to inform the accounting profession about their educational experience in order to address the deficiencies of their education. This research has informed the study problem by confirming the existence of the low corporate fraud detection by external auditors from the possible lack of fraud education in their undergraduate accounting programs.

References

Abdullatif, M. (2013). Fraud risk factors and audit programme modifications: Evidence from Jordan. *Australasian Accounting Business & Finance Journal*, *7*(1), 59-77.http://dx.doi.org/10.14453/aabfj.v7il.5

Adler, P. A., & Adler, P. (1987). *Membership roles in field research*. Newbury Park, CA: Sage

Afford, M. J., & Bebensee, M. A. (2010). Managing work place ethics can generate competitive advantage. *Journal of Business & Economics Research, 8*(1), 87. Retrieved from http://www.cluteinstitute.com

Agarwal, G., & Medury, Y. (2014). Internal auditor as accounting fraud buster. *The IUP Journal of Accounting Research & Practice, XIII*(1), 7-25. Retrieved from http://www.journalofaccountingresearch.com/about/2014

Aghghaleh, S. F., Iskandar, T. M., & Mohamed, Z. M. (2014). Fraud risk factors of fraud triangle and the likelihood of fraud occurrence: Evidence from Malaysia. *Information Management and Business Review, 6*(1), 1-7. Retrieved from http://www.bmr. businessjournal.org

Ahadiat, N., & Martin, R. (2015). Attributes, preparations, and skills accounting professionals seek in college graduates for entry-level positions vs promotion. *Journal of Business and Accounting, 8*(1), 179-189. Retrieved from http://www.ajba.um.edu

Ahmed, M. S., & Shil, S. (2013). Protecting existing and prospective investors and the role of internal auditors. *Independent Business Review, 6*(2), 26-51. Retrieved from http://www.kpmg.com

Akhidime, A. E., & Uagbale-Ekatah, R. E. (2014). The growing relevance of forensic accounting as a tool for combating fraud and corruption: Nigeria experience. *Research Journal of Finance and Accounting, 5*(2), 71-77. Retrieved from http://www.iiste.org

Akkeren, J. V., & Buckby, S. (2015). Perceptions on the causes of individual and fraudulent co-offending: Views of forensic accountants. *Journal of Business Ethics*, 1-22.doi: 10.1007/s10551-015-2881-0

Akkeren, J. V., Buckby, S., & MacKenzie, K. (2013). A metamorphosis of the traditional accountant: An insight into forensic accounting services in Australia. *Pacific Accounting Review, 25*(2), 188-216.doi:10.1108/PAR-06-2012-0023

Akpinar, M., del Campo, C., & Eryarsoy, E. (2013). Learning through co-operation and competition. *Interdisciplinary Studies Journal, 2*(3), 118-133.

Aksoy, T., & Kahyaoglu, S. (2012). An empirical analysis on the determinants of fraud cases in Turkey. *International Journal of Business and Social Sciences, 3*(1), n/a. Retrieved from http://www.ijbssnet.com

Alabdullah, T. T. Y., Alfadhi, M. M., Yahya, S., & Rabi, A. M. A. (2014). The role of forensic accounting in reducing financial corruption: A study in Iraq. *International Journal of Business and Management, 9*(1), 26-34. Retrieved from http://www.ccsenet.org

Albrecht, S. W, Albrecht, C., & Albrecht, C. C. (2008). Current trends in fraud and its detection. *Information Security Journal: A Global Perspective, 17*, 2-12. doi:10.1080/ 19393550801934331

Albrecht, C., Holland, D., Malagueno, R., Dolan, S., & Tzafrir, S. (2015). The role of power in financial statement fraud schemes, *Journal of Business Ethics, 131*, 803-813. doi:10.1007/s105551-013-2019-1

Al-Hadrami, A. H., & Hidayat, S. (2015). Obstacles to integrating forensic accounting in the accounting curriculum: The case of Bahrain. *Global Review of Accounting and Finance, 6*(1), 165-175. Retrieved from http://www.globalraf.com

Alleyne, B., & Amaria, P. (2013). The effectiveness of corporate culture, auditor education, and legislation in identifying, preventing, and eliminating corporate fraud. *International Journal of Business, Accounting, and Finance, 7*(1), 34-62. Retrieved from http://www.iabpad.com

Alleyne, B. J., & Elson, R. J. (2013). The impact of federal regulations on identifying, preventing, and eliminating corporate fraud. *Journal of Legal, Ethical and Regulatory Issues, 16*(1), 91-106. Retrieved from http://www.alliedacademies.org

Alshboul, A., & Alrabba, H. (2014). Evaluating the effectiveness of analytical tools of the Jordanian Audit Bureau in detecting accounting fraud. *International Journal of Business and Social Science, 5*(11), 203-208. Retrieved from http:// www. ijbssnet.com

Alzsila, I., & Ikaunieks, R. (2014). Changes and challenges facing the audit profession in Latvia. *Procedia-Social and Behavioral Sciences, 156*, 627-632. doi:10.1016/j.sbspro.2014.11.253

Amara, I., Amar, A. B., & Jarboui, A. (2013). Detection of fraud in financial statements: French companies as a case study. *International Journal of Academic Research in Business and Social Sciences, 3*(5), 456-472. Retrieved from http://www.hrmars. com/journals

American Institute of Certified Public Accountants (2005). *Core competencies framework for entry into accounting profession*. Retrieved from http://aicpa.org/ interstareas/accountingeducation/resources/paages/corecompetency.aspx.

American Institute of Certified Public Accountants (2013). *2013 Trends: In the supply of accounting graduates and demand for public accounting recruits*. Retrieved from http://www.aicpa.org/interestAreas/AccountingEducation/NewsAnd Publications/ DownloadableDocuments/2013-TrendsReport.PDF

American Institute of Certified Public Accountants (2015). *Core competencies*. Retrieved from http://aicpa.org

American Psychological Association. (2012). *Ethical principles of psychologists and code of conduct: 2010 amendments*. Retrieved from http://www.apa.org/ ethics/ code/index.aspx

Ames, T. (2010). Auditing: It's not just about the dollars…*The Journal of the American Society of Military Comptrollers, 55*(1), 20-25. Retrieved from http://www. asmconline.org/ publication

Anand, V., Dacin, M. T., & Murphy, P. R. (n.d). The continued need for diversity in fraud research. *Journal of Business Ethics, 131*, 751-755.doi:10.1007/s10551-014-2494-z

Andersen, M. L. Zuber, J. M., & Hill, B. D. (2015). Moral foundations theory: An exploratory study with accounting and other business students. *Journal of Business Ethics, 132*, 525-538.doi:10.1007/s10551-014-2362-x

Andre, S. M., & Smith, B. L. (2014). Enhancing the undergraduate accounting curriculum to augment core competencies. *Advances in Accounting Education, 15*, 59–78. Retrieved from http://www.emeraldinsight.com/series/aae

Andre, S., Pennington, A., & Smith, B. L. (2014). Fraud education: A module-based approach for all business majors. *Business Education and Accreditation, 6*(1), 81-94. Retrieved from http://www.theibfr.com

Anonymous (September, 2015). When do you need forensic accountants? *Strategic Finance*, 48-49. Retrieved from http://www.sfmagazine.com

Anzeh, B. A. & Abed, S. (2015). The extent of accounting ethics education for bachelor students in Jordanian universities. *Journal of Management Research,*7(2), 121-143.

Apostolou, B., Dorminey, J. W., Hassell, J. M., & Rebele, J. E. (2014). A summary and analysis of education research in accounting information systems (AIS). *Journal of Accounting Education, 32*(2), 99-112. Retrieved from http://www.journals. elsevier.com/journal-of-accounting-education

Apostolou, B., Dorminey, J. W., Hassel, J. M., & Rebele, J. E. (2015). Accounting education literature review (2013-2014). *Journal of Accounting Education, 33(2)*, 69-127.Retrieved from http://www.elsevier.com/locate/jaccedu

Apostolou, B., Dorminey, J. W., Hassell, J. M., & Watson, S. F. (2013). Accounting education literature review (2010-2012). *Journal of Accounting Education, 31*, 107-161.doi: 10.1016/j.jaccedu.2013.03.001

Apostolou, B., Dull, R. B., & Schleifer, L. L. F. (2013). A framework for the pedagogy of accounting ethics. *Accounting Education: An International Journal*, *22*(1), 1-17. doi/abs/10.1080/09639284.2012.698477#.VsJegPIrK00

Apostolou, B., Hassell, J. M., Rebele, J. E., & Watson, S. F. (2010). Accounting education literature review (2006–2009). *Journal of -Accounting Education, 28*(3-4), 145-197. Retrieved from http:// www.journals.elsevier.com/journal-of-accounting-education

Apostolou, B., Watson, S. F., Hassell, J. M., & Webber, S. A. (2001). Accounting education literature review: 1997–1999. *Journal of Accounting Education*, *19*(1), 1–61. Retrieved from http:// www. journals.elsevier.com/journal-of-accounting-education

Appiah, E. A. (2015). *Exploring the perceptions of Northern Virginia accountants on internal control weaknesses resulting in accounting fraud* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses databases. (Accession No. Number: 3745274)

Ardelean, A. (2015). Study regarding the clarification of ethical dilemmas in financial audit. *Audit Financiar*, *XIII*(5), 75-90.

Armitage, J., & Poyzer, J. (2010). Academicians' and practitioners' views on the importance of the topical content in the first auditing course. *American Journal of Business Education, 3*(1), 71-82.

Asare, S. K., & Wright, A. M. (2012). The effects of change in the reporting threshold and types of control deficiency on equity analysts' evaluation of the reliability of future financial statements. *Auditing, 31*(2), 1-17.doi:10.1111/j1911-3846.2011.01080.x

Asare, K. N., McKay-Nesbitt, J., & LeMaster-Merrick, A. (2014). Integrating business disciplines using a team-based approach. *Advances in Accounting Education*, *15*, 135–165. Retrieved from http://www.emeraldinsight.com/series/aae

Association of Certified Fraud Examiners. (2002). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2004). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2006). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2008). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2010). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2012). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2014). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Association of Certified Fraud Examiners. (2016). *The Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com

Austill, A. D. (2011). Legislation cannot replace ethics in regulatory reform. *International Journal of Business & Social Science, 2*(13), 61-71. Retrieved from http://www.ijbssnet.com

Avellanet, A. W. (2010). Anti-fraud controls: What internal auditors need to know? *Internal Auditing, 25*(1), 10-26.

Baden, D., & Parkes, C. (2013). Experiential learning: Inspiring the business leaders of tomorrow. *Journal of Management Development, 32*(3), 295-308.doi: 10.1108/ 02621711311318283

Bailey, J. A. (2010). *The IIA's global internal audits survey: Core competencies for today's internal auditors*. Retrieved from http://na.theiia.org/iiarf/ Public2 0Document/2010-CBOK-Core-Competencies.pdf

Ball, R. (2009). Market and political/regulatory perspectives on the recent accounting scandals. *Journal of Accounting Research, 47*(2), 277-323.doi:10.1111/j.1475-679x.2009.00325.x

Bampton, R., & Cowton, C. J. (2013). Taking stock of accounting ethics scholarship: A review of the journal literature. *Journal of Business Ethics, 114*(3), 549-563.doi: 10.1007/ s10551-012-1341-3

Barman, T., & White, S. (June 2014). Implementing an effective corporate ethics policy. *Chartered Management Accountants' Magazine*. Retrieved from http://www. cgmamagazine.org

Barth, M. E. (2014). Measurement in financial reporting: The need for concepts. *American Accounting Association: Accounting Horizons, 28*(2), 331-352.doi: 10.2308/acch-50689

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559. Retrieved from http://www.nova.edu/ssss/QR13-4/baxter.pdf

Bazrafshan, S. (2016). Exploring expectation gap among independent auditors' point of view and university students about importance of fraud risk components. *Iranian Journal of Management Studies, 9*(2), 305-331. Retrieved from http://ijms.ut.ac.ir/

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Neal, T. L. (2010). *Fraudulent financial reporting 1998-2007: An analysis of U.S public companies.* Retrieved from http://www.coso.org/documents/cosofraudstudy2010_001.pdf

Beets, D. S. (2011). Critical events in the ethics of Unites States history. *Journal of Business Ethics, 102,* 193-219.doi:10.007/s10551-011-0805-1

Bejarano, J. R. (2013). *Mitigating corporate financial fraud: A qualitative study* (Doctoral dissertation*)*. Retrieved from ProQuest Dissertations and Theses datadase. (Accession No.304327092).

Benson, S. S. (2012). Shielding the auditor from corporate fraud liability: Recent decisions and rationale for the in Pari Delicto defense. *The CPA Journal*, 58-65.

Berle, A., & Means, G. (1932). *The modern corporation and private property*. New York, NY: McMillan.

Bernardi, R. A., & Zamojcin, K. A. (2013). Trends in accounting-education publications by authors from the United States between 1966 and 2012. *The Accounting Educators' Journal, 23,* 71–91. Retrieved from http://www.aejournal. com/ojs/index.php/aej

Bernardi, R. A., & Zamojcin, K. A. (2014). Ranking doctoral programs using their graduates' publications in accounting education journals. *The Accounting Educators' Journal, 24,* 35–56. Retrieved from http://www.aejournal. com/ojs/index.php/aej

Bertheussen, B. A. (2014). Power to business professors: Automatic grading of problem-solving tasks in a spreadsheet. *Journal of Accounting Education*, *32*(1), 76–87. Retrieved from http://www. journals.elsevier.com/journal-of-accounting-education

Bertomen, J., & Marinovic, I. (2016). A theory of hard and soft information. *The Accounting Review, 91*(1), 1-20.doi:10.2308/accr-51102

Betts, S. & Healy, W. (2015). Having a ball catching on to teamwork: An experiential learning approach to teaching the phases of group development. *Academy of Educational Leadership Journal, 19*(3), 1-9. Retrieved from http://www. alliedacademies.org

Bhasin, M. L. (2013). Corporate accounting fraud: A case study of Satyam Computers Limited. *Open Journal of Accounting, 2*, 26-38. doi:10.4236/ojacct.2013.22006

Bhatti, W. A., Larimo, J., Coudounaris, D. N. (2015). The effects of experiential learning on subsidiary knowledge and performance. *Journal of Business Research, JBR-08586,* 1-5.doi:10.1016/j.jbusres.2015.10.018

Bolt-Lee, C. E., Farber, D. B., & Moehrle, S. R. (2011). Highlights of corporate governance research. *Journal of Accountancy*, 34-39. Retrieved from http://www. journalofaccountancy.com

Boneck, R., Barnes, J. N., & Stillman, T. F. (2014). VITA experiential, service-learning, learned competencies, and changed mindsets. *Journal of College Teaching & Learning (Online), 11*(2), 71-n/a. Retrieved from http://www.cluteinstitute.com

Boritz, E. J., Kochetova-Kozloski, N., & Robinson, L. (2015). Are fraud specialists relatively more effective than auditors at modifying audit programs in the presence of fraud risk? *American Accounting Association: The Accounting Review, 90*(3), 881-915.doi:10.2308 /accr-50911

Botes, V., Low, M., & Chapman, J. (2014). Is accounting education sufficiently sustainable? *Sustainability Accounting, Management and Policy Journal, 5*(1). Retrieved from http://www.emeraldgrouppublishing.com

Boyle, D. A., Boyle, J. F., & Mahoney, D. P. (2015). Avoiding the fraud mind-set. *Strategic Finance,* 41-46. Retrieved from http://www.sfmagazine.com

Boyle, D. M., Wilkins, A. M., & Hermanson, D. R. (2012). Corporate governance: Preparing for the expanding role of the internal audit function. *Internal Auditing, 27*(2), 13-18.

Bradbard, D. A., Alvis, C., & Morris, R. (2014). Spreadsheet usage by management accountants: An exploratory study. *Journal of Accounting Education*, *32*(4), 24-30. Retrieved from http://www. journals.elsevier.com/journal-of-accounting-education

Brannen, J., & Nilsen, A. (2011). Comparative biographies in case-based cross-national research: Methodical considerations. *Sociology, 45* (4), 603-619.

Branson, L., Chen, L., & Anderson, L. (2015). The implementation of international codes of ethics among professional accountants: Do national cultural differences matter? *International Journal of Business and Public Administration, 12*(1), 1-11. Retrieved from http://www.ijbpa.com

Bressler, L. (2011). Forensic investigation: The importance of accounting information systems. *International Journal of Business, Accounting, and Finance, 5*(1), 67-77. Retrieved from http://www.iabpad.com

Brewer, P. C., & Sorensen, J. E. (2014). The future of accounting education: Addressing the competency crisis. *Strategic Finance, Special Issue*, 29-37. Retrieved from http://www.sfmagazine.com

Brink, A. G., Lowe, D. J., & Victoravich, L. M. (2013). The effect of evidence strength and internal rewards on intentions to report fraud in the Dodd-Frank regulatory environment. *Auditing: A Journal of Practice & Theory, 32*(3), 87-104.doi: 10.2308/ajpt-50449

Brody, R. G., Melendi, S. R., & Perri, F. S. (2012). Commentary from the American Accounting Association's 2011 annual meeting panel on emerging issues in fraud research. *Accounting Horizons, 26*(3), 513-531. Retrieved from http://www. aapubs.org

Brooks, L., & Simpson, L. (2014). Experiential learning in higher education: Implications for improving employability of FCS graduates. *Journal of Family and Consumer Science, 106*(2), 16-21. Retrieved from http://www.aafcs.org

Buchholz, A. K. (2012). SAS 99: Deconstructing the fraud triangle and some classroom suggestions. *Journal of Leadership, Accountability and Ethics, 9*(2), 109-118. Retrieved from http://www.na-businesspress.com

Buckhoff, T., Haggins, L., & Sinclair, D. (2010). Fraud audit: Do you need one? *Journal of Applied Business Research, 26*(5), 29-33. Retrieved from http: //www. businesspress/JLAE

Burke, M. M., & Gandolfi, W. R. (2014). U.S accounting education: Misalignment with the needs of small and medium companies. *American Journal of Business Education, 7*(4), 339-348. Retrieved from http://www.cluteinstitute.com

Butler, C. (2015). Making interview transcripts real: The reader's response. *Work, Employment, and Society, 29*(1), 166-176.doi:10.1177/09500170014523482

Buys, P., Visser, S., & Oberholzer, M. (2012). A critical consideration of ethical foundations for the accounting profession. *Koers, 77*(2), 1-7.

Byrne, M., Flood, B., & Griffin, J. (2014). Measuring the academic self-efficacy of first-year accounting students. *Accounting Education: An International Journal, 23*(5), 407–423. Retrieved http://aaapubs.org/loi/iace

Calabretta, G., Durisin, B., & Ogliengo, M. (2011). Uncovering the intellectual structure of research in business ethics: A journey through the history, the classics, and the pillars of journal of Business ethics. *Journal of Business Ethics, 104*(4), 499-524. doi: 10.1007/ s10551-011-0924-8

Caldwell, C., Hayes, L., & Long, D. (2010). Leadership, trustworthiness, and ethical stewardship. *Journal of Business Ethics, 96*(4), 497-512.doi:2158427561

Cameron, R. A., & O'Leary, C. (2015). Improving ethical attitudes or simply teaching ethical codes? The reality of accounting ethics education. *Accounting Education: An International Journal, 24*(4), 275-290.doi:10.1080/09639384.2015.1036893

Chanaklang, A., Ussahawanitichakit, P., & Boonlua, S. (2015). Audit adaptation competency and audit survival: A conceptual paper. *Allied Academies International Conference. Academy of Accounting and Financial Studies. Proceedings*, *20*(2), 2-13. Retrieved from http://www.alliedacadememies.org

Chen, L. (2016). Local institutions, audit quality, and corporate scandals of US-listed foreign firms. *Journal of Business Ethics*, *133*(2), 351-373. doi:http://dx.doi.org/10.1007/s10551-014-2370-x

Carcello, J. V., Hermanson, D. R., & Ye, Z. (2011). Corporate governance in accounting and auditing: Insights, practice implications, and future research directions. *Auditing, 30*(3), 1-31. Retrieved from http://www.aaapubs.org/loi/ajpt

Carpenter, T. D., Durtschi, C., & Gaynor, L. M. (2011). The incremental benefits of a forensic accounting course on skepticism and fraud-related judgments. *Issues in Accounting Education, 26*(1), 1-21.doi.org/10.2308/iace.2011.26.1.1

Carpenter, T. D., Reimers, J. L., & Fretwell, P. Z. (2011). Internal auditors' fraud judgments: The benefits of brainstorming in groups. *Auditing, 30*(3), 211-224. Retrieved from http://www.aaapubs.org/loi/ajpt

Carty, L., & Baker, R. (2014). Student perceptions of learning technologies in introductory accounting courses. *The Accounting Educators' Journal*, *24*, 21–33. Retrieved from http://www.aejournal. com/ojs/index.php/aej

Carver, J., Dellva, B., Emmanuel, P., & Parchure, R. (2011). Ethical considerations in scientific writing. *Indian Journal of Sexually Transmitted Diseases and AIDS, 32*(2), 124-128.doi: 10.41003/0253-7184.85425

Chaffey, J., Van Peursem, K. A., & Low, M. (2011). Audit education for future professionals: Perceptions of New Zealand auditors. *International Journal of Accounting Education, 20*(2), 153-185.doi:10.1080/09639284.2011.557492

Chakrabarty, S., & Bass, A. E. (2015). Comparing virtue, consequentialist, and deontological ethics-based corporate social responsibility: Mitigating, micro-finance risk in institutional voids. *Journal of Business Ethics, 126*, 487-512.doi:10.1007/s10551-013-1963-0

Chambers, R., Daly, K., Fornelli, C., & Hollein, M. (2014). Fraud and complacency: A discussion with the anti-fraud collaboration. *Financial Executive, 30*(2), 35-41. Retrieved from http://www.financialexecutives.org

Chen, T. T. Y. (2015). Is reform in accounting education needed in China and Russia: A literature review? *Australian Accounting Business & Finance Journal, 9*(3), 72-83. Retrieved from http://www.ro.uow.edu.au/aabfj

Chen, C. X., Trofman, K. T., & Zhou, F. H. (2015). Nominal versus interacting electronic fraud brainstorming in hierarchical audit teams? *American Accounting Association-The Accounting Review, 90*(1), 175-198. Retrieved from http://www.aaapubs.org/loi/accr

Chiang, B., Nouri, H., & Samanta, S. (2014). The effects of different teaching approaches in introductory financial accounting. *Accounting Education: An International Journal, 23*(1), 42–53. Retrieved http://aaapubs.org/loi/iace

Chong, G. (2011). Detecting and deterrent of fraud risks. *Academy of Accounting and Financial Studies, 16*(1), 5-10. Retrieved from http://www.alliedacademies.org

Christensen, A. L., Cote, J., & Latham, C. K. (2016). Insights regarding the applicability of the defining issues test to advance ethics research with accounting students: A meta-analytic review. *Journal of Business Ethics, 133*, 141-163.doi:10.1007/s10551-014-2349-7

Cieslewicz, J. K. (2010). *Culture and accounting: Ramifications for fraud prevention, the development of international accounting, and reporting* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Accession No: 3429726).

Cilliers, v. Z., & de Villiers, C. (2011). Why some students choose to become chartered accountants (and others do not). *Meditari Accountancy Research, 19*(1), 56-74. doi:10.1108/10222521111178637

Clune, R., Hermanson, D. R., Tompkins, J. G., & Ye, Z. S. (2014). The nominating committee process: A qualitative examination of board independence and formalization. *Contemporary Accounting Research, 31*(3), 748-786. doi:10.1111/1911.3846.12044

Cody, T. (2014). Forensics uncovered. *Accounting Today, 28*(4), 6-7. Retrieved from http://www.accountingtoday.com

Coetzee, S. A., & Schmulian, A. (2013). The effect of IFRS adoption on financial reporting pedagogy in South Africa. *Issues in Accounting Education*, *28*(2), 243–251. Retrieved from http://aaapubs.org/loi/iace

Coetzee, S. A., Schmulian, A., & Kotze, L. (2014). Communication apprehension of South Africa accounting students: The effects of culture and language. *Issues in Accounting Education, 29*(4), 505-525.doi:10.2308/iace-50850

Cohen, J., Krishnamoorthy, G., & Wright, A. (2010). Corporate governance in the post-Sarbanes-Oxley era: Auditors' experiences. *Contemporary Accounting Research, 27*(3), 751-786.doi:10.1111.j.1911-3846.2010.01026.x

Colon, R., Badua, F., & Torres, I. (2016). Techniques for closing the loop in accounting pedagogy. *Business Education Journal, 7*(2), 101-106.Retrieved from http://www.beijournal.com

Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, & Institute of Medicine. (2009). *On being a scientist: A guide to responsible conduct in research* (3rd ed.). Washington D.C: National Academies Press [e-book]. Retrieved from http://www.nap.edu/ catalogue.php? record_id =12192

Cooper, D. R., & Schindler, P. S. (2003). *Business research methods* (8th ed.). Boston, MA: McGraw-Hill Irwin. Retrieved from http://www.managementhelp.org

Cornell, R. M., Johnson, C. B., & Schwartz Jr., W. C. (2013). Enhancing student experiential learning with structured interviews. *Journal of Education for Business, 88*, 136-146.doi:10.1080/08832323.2012.659296

Cozby, P. C., & Bates, S. C. (2012). *Methods in behavioral research*. New York, NY: McGraw Hill Higher Education.

Crawford, F. (2016). Mind the skills gap. *Acuity*, 48-50.

Crawford, R. L., & Weirch, T. R. (2011). Fraud guidance for corporate counsel reviewing financial statements and reports. *Journal of Financial Crime, 18*(4), 347-360.doi: 10.1108/13590791111173696

Cressey, D. (1953). *Other peoples' money: A study in the social psychology of embezzlement*. Glencoe, IL: The Free Press.

Cressey, D. (1973). *Other peoples' money: A study in the social psychology of embezzlement*. Montclair, NJ: Patterson Smith

Dada, S. O. (2014). Forensic accounting technique: A means of successful eradication of corruption through fraud prevention, bribery prevention and embezzlement prevention in Nigeria. *Kuwait Chapter of the Arabian Journal of Business and Management Review, 4*(1), 176-186. Retrieved from http://www.arabianjbmr.com

Daniels, B. W., Ellis, Y., & Gupta, R. D. (2013). Accounting educators and practitioners' perspectives on fraud and forensic topics in the accounting curriculum. *Journal of Legal, Ethical, and Regulatory Issues, 16*(2), 93-106.Retrieved from http://www.alliedacademics.org/public/journalsdetails.pdf

Darcy, J., Mollick, C., Rios, C., & Ybarra, R. (2011). Observed rationalizations for dishonesty in a closed group. *Journal of International Business and Economics, 11*(4), 81-93. Retrieved from http://www.jibe-net.com

Darus, F., & Mohamad, A. (2011). Corporate governance and corporate failure in the context of agency theory. *Journal of American Academy of Business, 17*(1), 125-132. Retrieved from http://www.jaabc.com

Davidovitch, N., Yavich, R., & Keller, N. (2014). Mathematics and experiential learning: Are they compatible? *Journal of College Teaching & Learning, 11*(3), 135-148. Retrieved from http://www.cluteinstitute.com

Davis, C., Farrell, R., & Ogilby, S. (2013). *Characteristics and skills of the forensic accountant*. New York, NY: American Institute of Certified Public Accountant.

Delande, T. L., Bernardi, R. A., Zamojcin, K. A. (2014). Ranking accounting- education authors from four countries: A 20-year study from 1993 through 2012. *Global Perspectives on Accounting Education, 11*, 65-76. Retrieved from http://gpae.bryant.edu/

Dellaportas, S., & Hassall, T. (2013). Experiential learning in accounting education: A prison visit. *The British Accounting Review, 45*, 24-36.doi:10.1016/j.bar. 2012. 12.005

Dellaportas, S., Kanapathippillai, S., Khan, A., & Leung, P. (2014). Ethics education in the Australian accounting curriculum: A longitudinal study examining barriers and enablers. *Accounting Education: An International Journal, 23*(4), 362-382. doi:10.1080/09639284.2014.930694

Demerens, F., Pare, J., & Redis, J. (2013). Investor skepticism and creative accounting: The case of a French SME listed on internet. *International Journal of Business, 18* (1), 59-80. Retrieved from http:// search, proquest. com. proxy1.ncu. edu/docview/ 1321093949?accountid =28180

Denzin, N. K., & Lincoln, Y. S. (2011). *The sage's handbook of qualitative research*. (3rd ed.). Thousand Oaks, CA: Sage. Retrieved from http://www.sagespub.com /upm.data/40425

DeSimone, F., & Buzza, J. (2013). Experiential learning: Improving the efficacy of an undergraduate business degree. *American Journal of Business Education, 6*(1), 7-24. Retrieved from http://www.cluteinstitute.com

Diagle, R. J., Hayes, D. C., & Morris, P. W. (2014). Helping students understand occupational fraud by applying the ACFE report to daytime television talks show confessions. *Issues in Accounting Education, 29*(2), 319-330.doi:10.2308/iace-50545

Dickins, D., & Reisch, J. T. (2012). Enhancing auditors' ability to identify opportunity to commit fraud: Instructional resource cases. *Issues in Accounting Education: American Accounting Association, 27*(4), 1153-1169.doi:10.2308/iace-50178

Dilla, W. N., & Raschke, R. L. (2015). Data visualization for fraud detection: practice implications and a call for future research. *International Journal of Accounting Information Systems, 16*, 1-22.doi:10.1016/j.accinf.2015.01.001

Dobre, F., Popa, A. F., & Niculita, A. L. (2013). What exactly financial auditors report give the divergence between ethics, social responsibility and financial performance. Is the audit profession still sustainable? *Revista De Management Comparat International, 14*(1), 63-70. Retrieved from http://www.mci.ase.ro

Doinea, O., & Lapadat, G. (2012). Determining financial reporting fraud. *Economics, Management and Financial Markets, 7*(1), 132-137. Retrieved from http://www.addletonacademicpublishers.com

Dombrowski, R. F., Smith, K. J., & Wood, B. G. (2013). Bridging the education-practice divide: The Salisbury University auditing internship program. *Journal of Accounting Education, 31*(1), 84–106. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Dorminey, K., & Fleming, A. S. (2012). The evolution of fraud theory. *Issues in Accounting Education, 27*(2), 555-579. http://www.aaapubs.org

Dorminey, J. W., Fleming, A. S., Kranacher, M., & Riley, R. (2012). Financial fraud: Certified Public Accountant. *The CPA Journal, 82*(6), 61-65.doi:10.2308/iace-50131

Dulek, R. E., & Campbell, K. S. (2015). On the dark side of strategic communication. *International Journal of Business Communication. 52*(1), 122-142. doi:10.1177/2329488414560107

Dunn, M., Sheehan, M., Hope, T., & Parker, M. (2012). Towards methodological innovation in empirical ethics research. *Cambridge Quarterly of Healthcare Ethics, 21*(4), 466-80.doi:10.1017/S0963180112000242

Durbar, A. E. & Weber, D. P. (2014). What influences accounting research? A citations-based analysis. *Issues in Accounting Education, 29*(1), 1-60. Retrieved from http://aaapubs.org/loi/iace

Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of Sexual Behavior, 41*, 1319-1320.doi:10.1007/s10508-012-0016-6

Dyer, S., & Demeritt, D. (2009). Un-ethical review? Why it is wrong to apply the medicine model of research governance to human geography. *Progress in Human Geography, 33*(1), 46-64.doi:10.1177/0309132508090475

Dzuranin, A. C., Shortridge, R. T., & Smith, P. A. (2013). Building ethical leaders: A way to integrate and assess ethics education. *Journal of Business Ethics, 115*, 101-114.doi:10.1007/s10551-012-1371-x

Effiok, S. O., Ojong, C. M., & Usang, O. U. E. (2012). The implication of occupational fraud and financial abuse on the performance of companies in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business, 4*(7), 516-533. http://www.ijcrb.com

Elam, D., Madrigal, M., & Jackson, M. (2014). Olympus Imaging fraud scandal: A case study. *American Journal of Business Education, 7*(4), 325-332. Retrieved from http:// www. cluteinstitute.com

El-Gammal, W., & Showeiry, M. (2012). Corporate governance and quality of accounting information: Case of Lebanon, *The Business Review, Cambridge, 19*(2), 310-315. Retrieved from http://www.jaabc.com

Ellerman, D. (2014). On double-entry bookkeeping: The mathematical treatment. *Accounting Education: An International Journal*, *23*(5), 483–501. Retrieved http://aaapubs.org/loi/iace

Elrod, H., Pittman, K., Norris, J. T., & Tiggeman, T. (2015). Excel training and the technology student learning outcome. *Academy of Educational Leadership Journal, 19*(2), 43-49. Retrieved from http://www.alliedacademies.org

Emeh, Y., & Ogochukwu, O. (2013). An empirical analysis of forensic accounting and financial fraud in Nigeria. *African Journal of Social Sciences, 3*(4), 112-121. Retrieved from http://www.sachajournals.com

Enofe, A. (2010). Certified public accounting profession: The African-American experience. *International Journal of Business, Accounting, and Finance, 4*(1), 157-168. http://www.iabpad.com

Enofe, A., & Amaria, P. (2011). The role of the church denomination in financial accountability among religious organizations. *International Journal of Business, Accounting, and Finance, 5*(2). Retrieved from http://www.iabpad.com

Enofe, A., Amaria, P., & Anekwu, D. (2012). Major changes affecting the accounting profession: Empirical investigation. *International Journal of Business and Public Administration, 9*(2), 77-96. Retrieved from http://www.iabpad.com

Enofe, A. O., Okpako, P. O., & Atube, E. N. (2013). The impact of forensic accounting on fraud detection. *European Journal of Business and Management, 5*(26), 61-73. Retrieved from http://www.iiste.org

Epps, K. K., Epps, A. L., Campbell, J. E. (2015). A framework for identifying factors to consider when implementing an academic program at a satellite campus. *Academy*

of Educational Leadership Journal, 19(2), 51-65. Retrieved from http://www.alliedacademies.org

Eyisi A. S., & Ezuwore, C. N. (2014). The impact of forensic auditors in corporate governance. *Research Journal of Finance and Accounting, 5*(8). Retrieved from http://www. iiste.org

Fajardo, C. (2014). Best practices for teaching accounting courses online. *Journal of Business and Education, 5*(1), 28-37. Retrieved from http://www.tandfonline.com /loi/vjeb20

Fatemi, D., Marquis, L., & Wasan, S. (2014). Student performance in intermediate accounting: A comparison of the effectiveness of online and manual homework assignments. *The Accounting Educators' Journal*, *24*, 1-19. Retrieved from http://www. aejournal.com/ojs/index.php/aej

Feng, M., Ge, W., Luo, S., & Sherlin, T. (2011). Why do CFOs become involved in material accounting manipulations? *Journal of Accounting and Economics, 51*, 21-36. doi:10.1016/j.jacceco. 2010. 09.005

Ference, S. (2014). Failure to detect theft and fraud: It's not just an audit issue. *Journal of Accountancy, 217* (2), 16-17. Retrieved from http://www.journalofaccountancy. com/about/2014

Finch, D., Peacock, M., Lazdowski, D., & Hwang, M. (2015). Managing emotions: A case study exploring the relationship between experiential learning, emotions, and student performance. *The International Journal of Management Education, 13*, 23-36. Retrieved from http:www.elsevier.com/locate/ijme

Fiore, R. N. (2012). Conflict of interest in research involving human subjects. Retrieved from http//:www.citiprogram.org

Fleak, S. K., Harrison, K. E., &Turner, L. A. (2010). Sunshine Center: An instructional case evaluating internal controls in a small organization. *Issues in Accounting Education*, *25*(4), 709-720.doi:10.2308/iace.2010.25.4.709

Fleming, S. A., Pearson, T. A., & Riley, R. A. (2008). West Virginia University forensic accounting and fraud investigation (FAFI). *Issues in Accounting Education, 23*(4), 573-580. Retrieved from http://aaapubs.org

Flesher, D. L., & Previts, G. J. (2016). A historical episode of professional skepticism: The SEC's Thomascolor case against Haskins & Sells. *The CPA Journal*, 19-21.

Floyd, L. A., Atkins, R., & Caldwell, C. (2013). Ethical outcomes and business ethics: Towards improving business ethics education. *Journal of Business Ethics, 117*,753-776. doi:10.1007/s10551-013-1717-z

Fogarty, T. J., & Black, W. H. (2014). Further tales of the schism: US accounting faculty and practice credentials. *Journal of Accounting Education, 32*(3), 223–237. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Fredin, A., Fuchsteiner, P., & Portz, K. (2015). Working towards more engaged and successful accounting students: A balanced score card approach. *American Journal of Business Education, 8*(1), 49-62. Retrieved from http://www.emeraldinsight.com/journal/ajb

Free, C., & Murphy, P. R. (2015). The ties that bind: The decision to co-offend in fraud. *Contemporary Accounting Research, 32*(1), 13-15.doi:10.1111.1911-3846-12063

French, R. G., & Coppage, R. E. (n.d). A strategic model for accounting education. *The Journal of Applied Business Research, 19*(2), 107-116. Retrieved from http://www.cluteinstitute.com

Friedman, H. L. (2014). Implications of power: When the CEO can pressure the CFO to bias reports. *Journal of Accounting and Economics, 58,* 117-141. doi:10.1016/j.jacceco. 2014.06.004

Gary, E., & Vuille, J. (2014). Comparing the use of forensic science evidence in Australia, Switzerland, and the United States: Transcending the adversarial dichotomy. *Jurimetrics: The Journal of Law, Science & Technology, 54*(3), 221. Retrieved from http://www.mjlst.umn.edu

Gates, S., Lee, P., & Sullivan, C. (2011). Integration of fraud videos throughout the accounting and business curriculum. *Journal of Forensic Studies in Accounting and Business, 3*(1), 25-31. Retrieved from http://www.coba.georgiasouthern.edu

Gbadago, F. Y. (2015). Audit expectation gap and MBA accounting students' knowledge on auditors' responsibilities: Evidence from a public university in Kumasi Ashanti Region of Ghana. *Journal of Accounting & Taxation, 7*(4), 53-61. doi:10.5897/JAT2015.01.69

Gbegi, D. O., & Adebisi, J. F. (2014). Forensic accounting skills and techniques in fraud investigation in the Nigerian public sector. *Mediterranean Journal of Social Sciences, 5*(3), 243-252. Retrieved from http://www.mcser.org

Galletta, P. Z. (2015). A basic field guide to fraud. *The CPA Journal, 85*(3), 54-59. Retrieved from http://www.thecpajournal.com

Gentelli, L. (2015). Using industry professionals in undergraduate teaching: Effects on student learning. *Journal of University Teaching & Learning Practice, 12*(4), 1-11. Retrieved from http://www.ro.uow.edu.au/jutlp/vol12/iss4/4

Gerard, J. A., & Weber, C. M. (2014). How agency theory informs a $30 million fraud. *Journal of Finance, Accounting and Management, 5*(1), 16-47. Retrieved from http://www.onlinelibrary.wiley.com

Ghazali, M. Z., Rahim, M. S., Ali, A., & Abidin, S. (2014). A preliminary study on fraud prevention and detection at the state and local government entities in Malaysia. *International Conference on Accounting Studies; Procedia-Social and Behavioral Sciences, 164*, 437-444. Retrieved from http://www.sciencedirect. Com

Glaser, B. G., & Strauss, A. L. (1991). A method of analyzing interviews transcripts in qualitative research. *Nursing Education Today, 11*(6), 461-466. doi:10.1016/0260-6917(91)90009-Y

Glasow, P. A. (2005). Fundamentals of survey research methodology. Retrieved from http://www.uky.edu/~kdbrad2/EPE619/Handouts/SurveyResearchReading.pdf

Glovino, C. J. (2015). The fraud response. *Internal Auditor, February*, 43-47. Retrieved from http://www.iaonline.theiia,org

Goel, S. (2013). Decoding gimmicks of financial shenagans in telecom sector in India. *Accounting and Management Information System, 12*(1), 118-131. Retrieved from http://www.econpapers.org/revistacig.ase.ro

Goldstein, J., Sauer, P., & O'Donnell, J. (2014). Understanding factors leading to participation in supplemental instruction programs in introductory accounting courses. *Accounting Education: An International Journal*, *23*(6), 507–526. Retrieved http://aaapubs.org/loi/iace

Gordon, I. M. (2015). Lessons to be learned: An examination of Canadian and U.S financial accounting and auditing textbooks for ethics/governance coverage. *Journal of Business Ethics, 101*, 29-47.doi:10.1007/s10551-010-0706-8

Gottschalk, P. (2016). Knowledge management in private investigations of white-collar crimes. *Information Resource Management Journal, 29*(1), 1-14. Accession Number: 112171217

Griffiths, K. (2015). Personal coaching: A model for effective learning. *Journal of Learning Design, 8*(3), 17-28. Retrieved from http://www.jld.edu.au

Grimm, S. D. (2015). Learning logs: Incorporating writing-to-learning assignments into accounting courses. *Issues in Accounting Education, 30*(2), 79-104. doi:10.2308/iace-50980

Guest, G., Brunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59-82. doi.org/10.1177/1525822X05279903

Gupta, R., & Gill, N. S. (2012). Prevention of financial statement fraud using data mining. *International Journal of Computer Science and Information Security, 10*(4), 55-59. Retrieved from http://www.ijcis.edu

Gupta, P. K., & Gupta, S. (2015). Corporate frauds in India - perceptions and emerging issues. *Journal of Financial Crime*, *22*(1), 79. Retrieved from http:// www. emeraldinsight.com

Gyebi, F., & Quain, S. (2013). Internal controls on cash collection: A case of the Electricity of Company of Ghana Ltd., Accra East Region. *International Journal of Business and Social Science, 4*(9), n/a. Retrieved from http://www.ijbssnet.com

Hall, T. W., Pierce, B. J., Tunnell, P. L., & Walther, L. M. (2014). Heterogeneous student perceptions of accounting course importance and their implications for SET reporting and use. *Journal of Accounting Education*, *32*(1), 1-15. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Hansen, J. D., & Peterson, N. D. (2010). A comparison of auditors' and accounting students' ability to identify fraud risk. *Journal of Forensic Studies in Accounting and Business,* 11-19. Retrieved from http://www.coba.georgiasouthern.edu

Harrison, S. (2013). *Annual fraud indicator* (AFI). National Fraud Authority, 1-66. Retrieved from http://www.gov.uk

Hassan, O. A. G., Fox, A., & Hannah, G. (2014). Self- and peer-assessment: Evidence from the accounting and finance discipline. *Accounting Education: An International Journal*, *23*(3), 225–243. Retrieved http://aaapubs.org/loi/iace

Hayek, M., Hayek, C., & William, W. A. (2013). Implication of SOX compliance for HRM: Enhancing internal controls with E-HRM. *Journal of Applied Management and Entrepreneurship, 18*(4), 18-41. Retrieved from http://www.greenleaf-publishing.com

Healy, M., McCutcheon, M., & Doran, J. (2014). Student views on assessment activities: Perspectives from their experience on an undergraduate programme. *Accounting Education: An International Journal*, *23*(5), 467–482. Retrieved http://aaapubs.org/loi/iace

Hendi, P. Y. (2013). Better, faster, smarter: Developing a blueprint for creating forensic accountants. *Journal of Money Laundering Control, 16*(4), 353-378. doi:10.1108/JMLC-05-2013-0017?

Hermanson, D. R., Tompkins, J. G., Veliyath, R., & Ye, Z. S. (2012). The compensation committee process. *Contemporary Accounting Research, 29*(3), 666-709. doi:10.1111/j.1911.3846.2011.01118.x

Hidayat, S. E. & Al-Hadrami, A. H. (2015). Forensic accounting education in Bahrain: A survey on educators' opinion. *International Journal of Pedagogical Innovations, 3*(1), 7-16. Retrieved from http://www.ijpint.com

Higgins, H. N. (2012). Learning internal controls from a fraud case at Bank of China. *Issues in Accounting Education, 27*(4), 1171-1192. Retrieved from http://aaapubs.org/loi/iace

Higson, A. (2013). The potential implications of the financial reporting expectations gap for the development of corporate governance. *International Journal of Disclosure and Governance, 10*(3), 234-245. doi:10.1057/jdg.2013.25

Hill, D., & Johnson, S. (2014). Teaching graduate accounting students what they need to know about marketing their profession. *American Journal of Business Education, 7(*1), 59-78. Retrieved from http://www.cluteinstitute.com

Holderness, D. K., Jr., Myers, N. M., Summers, S. L., & Wood, D. A. (2014). Accounting education research: Ranking institutions and individual scholars. *Issues in Accounting Education, 29*(1), 87–115. Retrieved from http://aaapubs.org/loi/iace

Holland, D., & Albrecht, C. (2013). The worldwide academic field of business ethics: Scholars' perceptions of the most important issues. *Journal of Business Ethics, 117*(4), 777-788.doi:10.1007/s10551-013-1718-y

Hollow, M. (2014). Money, morals and motives-An exploratory study into why bank managers and employers commit fraud at work. *Journal of Financial Crime, 21*(2), 174-190.doi:10.1108/JFC-02-2013-00110

Holmes, K., Marriot, L., & Randal, J. (2012). Ethics and experiments in accounting. *Pacific Accounting Review, 24*(1), 80-100.doi:10.1108/01140581211221560

Hopwood, W. S., Leiner, J. J., & Young, G. R. (2012). *Forensic accounting and fraud examination* (2 nd ed.). New York, NY: Mcgraw-Hill.

Howieson, B., Hancock, P., Segal, N., Kavanagh, M., Tempone, I., & Kent, J. (2014). Who should teach what? Australian perceptions of the roles of universities and practice in the education of professional accountants. *Journal of Accounting Education*, *32*(3), 259–275. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Hsu, C., Kung, F., & James, K. (2013). An investigation of auditors' responsibility for fraud detection in Taiwan. *Asian Journal of Finance & Accountancy, 5*(1), 30-47. Retrieved from http://www.macrothink.org/journals/index/ajfa

Huber, W. D. (2014a). Research in forensic accounting-What matters? *Journal of Theoretical Accounting Research, 9*(2), 40-70. Retrieved from http://www.jtar.org

Huber, W. D. (2014b). The research-publication complex and the shift in accounting research. *International Journal of Critical Accounting, 7*(1), 1-48. doi:10.1504/IJCA.2015.069196

Huber, W. D., & DiGabriele, J. A. (2014). What is the purpose of research in forensic accounting? *Journal of Theoretical Accounting Research,* 30-49. Retrieved from http://www.jtar.org

Humphrey, R. L., & Beard, D. F. (2014). Faculty perceptions of online homework software in accounting education. *Journal of Accounting Education, 32*(3), 238–258. Retrieved from http://www. journals.elsevier.com/journal-of-accounting-education

Hunt, G. L., & Austin, S. F. (2014). A descriptive comparison of two sources of occupational fraud data. *Journal of Business & Economics Research, 12*(2), 171-176. Retrieved from http://www.cluteinstitute.com

Hussain, M. M., Kennedy, K., & Kierstead, V. (2010). Can audit prevent fraudulent financial reporting practices? Study of some motivational factors in two Atlantic Canadian entities. *Issues in Social and Environmental Accounting, 4*(1), 65-73. Retrieved from http://www.isea.icseard.uns.id/pdf

Ihendinihu, J. U., & Robert, S. N. (2014). Role of audit education in minimizing audit expectation gap (AEG) in Nigeria. *International Journal of Business and Management, 9*(2), 203-211.doi:10.5539/ijbm.v9n2p203

Imoniana, J. O., Antunes, M. T. P., & Formigoni, H. (2013). The forensic accounting and corporate fraud. *Journal of Information Systems and Technology Management, 10*(1), 119-144. Retrieved from http://dx.doi.org/10.1590/S1807-17752013000100008

Imoniana, J. O., & Murcia, F. D-R. (2016). Patterns of similarity of corporate fraud. *The Qualitative Report, 21*(1), 143-162. Retrieved from http://nsuworks.nova.edu /tqr/vol21/iss1/12

Independent Accountants Association of Illinois (2015). Retrieved from http:// www. Illinoisaccountants.com-accessed on 09/04/2015

Jackson, D. (2014). Testing a model of undergraduate competence in employability skills and its implications for stakeholders. *Journal of Education and Work, 27*(2), 220-242. doi:10.1080/13639080.2012.718750

Jackson, M. (2014). Accounting "boot camp". *Journal of Accounting Education, 32*(1), 88-97. Retrieved from http://www. journals.elsevier.com/journal-of-accounting-education

Jackson, S. L. (2012). *Research methods and statistics: A critical thinking approach*. (4th ed.). Boston, MA: Wadsworth Cengage Learning.

Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report, 17*(6), 1-10. Retrieved from http:// www.nova.edu/sss/ QR/QR17/jacob.pdf

Janse van Rensburg, C., Coetzee, S. A., & Schmulian, A. (2014). South African financial reporting students' reading comprehension of the IASB conceptual framework. *Journal of Accounting Education, 32*(4), 1-15. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Jelinek, K. (2015). Between a rock and a hard place: Conflict minerals and professional integrity. *Business Horizon, 58*, 485-492.doi:10.1016/j.bushor.2015.05.001

Jensen, C. M., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360.

Jindrichovska, I., & Kubickova, D. (2015). Czech accounting academia and practice: Historical roots and current issues. *Accounting and Management Information Systems, 14*(2), 328-361. Retrieved from http://www.sciencedirect.com/ science/journal/0304405X

Johnson, B. G., & Sargent, C. S. (2014). Impact of formulas, language and instruction on student performance on cost-volume-profit problems. *Accounting Education: An International Journal, 23*(1), 22–41. Retrieved http://aaapubs.org/loi/iace

Johnson-Rokosu, S. F (2015). Integrating forensic accounting core competency into the study of accounting: Case of Nigeria tertiary institutions. *Academic Journal of Economic Studies, 1*(3), 38-64. Retrieved from http://www.iajes.ro

Jones, R. (2014). Bridging the gap: Engaging in scholarship with accountancy employers to enhance understanding of skills development and employability. *Accounting Education: An International Journal*, *23*(6), 527–541. Retrieved http://aaapubs.org/loi/iace

Jorge, M. L., Pena, F. J. A., & de los Reye, M. J. M. (2015). Factors influencing the presence of ethics and CSR stand-alone-courses in the accounting master's curricula: An international study. *Accounting Education: An International Journal, 24*(5), 361-382. doi:10.1080/09639284.2015.1051562

Kandemir, H. K. (2013). The EU law on auditing and the role of auditors in the global financial crisis of 2008. *International Journal of Disclosure and Governance, 10*(3), 213-233. doi:10.1057/jdg.2013.6

Kassem, R., & Higson, A. (2012). Financial reporting fraud: Are standards' setters and external auditors doing enough*? International Journal of Business and Social Science, 3(*19), 283-290.Retrieved from http://papers.ssrn.com

Kawasaki, T. (2010). Big investment fraud and Yakuza money crime-Two perspectives of financial crime in Japan: Financial crime in Japan. *Asian Journal of Criminology, 5*(2), 89-98.doi:10.1007/ s11417-010-9091-6

Kazil, C., Cetin, A. T., & Bulunmaz, A. (2014). Accounting education approach in the context of new Turkish Commercial Code and Turkish accounting standards. *Emerging Market Journal, 4*(1), 72-84.doi.org/10.5195/emaj.2014.62

Kearns, G., Barker, K., & Danese, S. P. (2011). Developing a forensic continuous audit model. *The Journal of Digital forensics, Security and Law*: JDFSL, *6*(2), 25-47. Retrieved from http://www.jdfsl.org

Kern, S. M., & Weber, G. J. (2016). Implementing a "real-world" fraud investigation class: The Justice for Fraud Victims Project. *Issues in Accounting Education: American Accounting Association, 31*(3), 255-289.doi:10.2308/iace-51287

Khalil, O. E. M. (2015). Students' experience with the business internship program at Kuwait University. *The International Journal of Management Education, 13*, 202-217. Retrieved from http://www.elsevier.com/locate/ijme

Khanlarian, C. J., & Singh, R. (2014). An exploratory study of the online learning environment. *Issues in Accounting Education, 29*(1), 117–147. Retrieved from http://aaapubs.org/loi/iace

Kidwell, L. A., Fisher, D. G., Braun, R. L., & Swanson, D. L. (2012). Developing learning objectives for accounting ethics using Blooms Taxonomy. *Accounting Education, 22*(1), 44-65.doi:10.1080/09639284.2012.698478

Kleinsmith, W., Hewitt, M., Previti, L., & Kachur, R. (2016). Accounting ethics: Post-conventional moral development and non-mandatory virtues; making the case for ethics training in the undergraduate programs. *Journal of Theoretical Accounting Research*, 63-77.

Klimeck, J., & Wenell, K. (2011). Ethics in accounting: An indispensable course? *Academy of Educational Leadership Journal. 15*(4), 107-118. Retrieved from http://www.alliedacademies.org/

Kobelsky, K., Lim, J., & Jha, R. (2013). The impact of performance-based CEO and CFO compensation on internal control quality. *Journal of Applied Business Research, 29* (3), 913-933. Retrieved from http://www.cluteinsitute.com

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.

Koller, C. A., Patterson, L. A., & Scalf, E. B. (n.d). When moral reasoning and ethics training fail: Reducing white collar crime through the control of opportunities for deviance. *Notre Dame Journal of Law, Ethics and Public Policy, 28*, 549-578. Retrieved from http://www.scholarship.law.nd.edu/ndjlepp

Koumbiadis, N., & Pandit, G. M. (2014). Has the AICPA changed the accounting profession for better or worse? The case of educational change. *Journal of Accounting & Organizational Change, 10*(2), 190-215.doi:10.1108/JAOC-07-2012-0054

Kranacher, M., & Stern, L. (November, 2004). Enhancing fraud detection through education. *The CPA Journal*, 66-67. Retrieved from http://www.nysscpa.com

Kranacher, M., Morris, B. W., Pearson, T. A., & Riley, R. A. (2008). A model curriculum for education in fraud and forensic accounting. *Issues in Accounting Education, 23*(4), 505-519. Retrieved from http://www.aaapubs.org

Kreuter, E., Sawhney, S., & Sacks, G. D. (2013). Travel expense & payroll fraud case study: Inquiry, confrontation, admission, restitution, and internal controls. *Forensic Examiner, 22*(3), 28-35. Retrieved from http://www.theforensicexaminer.com

Laing, G. K. (2013). Service learning: An auditing project study. *International Education Studies, 6*(1), 174-183.doi:10.5539/ies.v6n1p174

Lambert, S. C., Carter, A. J., & Lightbody, M. (2014). Taking the guesswork out of assessing individual contributions to group work assignments. *Issues in Accounting Education*, *29*(1), 169–180. Retrieved from http://aaapubs.org/loi/iace

Lang, A. Bashir, M., Campbell, R., & DeStefano, L. (2014). Developing a new digital forensic curriculum. *Digital Investigation, 11*, s76-s84. doi:10.1016/j.diin.2014.05.008

Laurin, J. E. (2013). Remapping the path forward: Toward a systemic view of forensic science reform and oversight. *Texas Law Review, 91*(5), 1051-1118.

Law, P. (2011). Corporate governance and no fraud occurrence in organizations. *Managerial Auditing Journal, 26*(6), 501-518.doi:10.1108/02686901111142558

Lawson, R. A., Blocher, E. J., Brewer, P. C., Cokins, G., Sorensen, J. E., Stout, D. E., Sundem, G. L., …& Wouters, M. J. E. (2014). Focusing accounting curriculum on students' long-run careers: Recommendations for an integrated competency-based framework for accounting education. *American Accounting Association: Issues in Accounting, 29*(2), 295-317.doi:10.2308/iace-50673

Lawson, R. A., Blocher, E. J., Brewer, P. C., Morris, J. T., Stocks, K. D., Sorensen, J. E., Stout, D. E., & Wouters, J. F. M. (2015). Thoughts on competency integration in accounting education. *Issues in Accounting Education, 30*(3), 149-171. doi:10.2308/iace-51021

Laxman, S. Randles, R., & Nair, A. (2014). Internal auditors can use COSO components to develop and deliver an effective fraud mitigation program. *Internal Auditors*, 49-53. Retrieved from http:// www. InternalAuditorOnline.org

Lee, C., Churyk, N. T., & Clinton, D. B. (2013). Detect fraud before catastrophe. *Strategic Finance*, 33-37. Retrieved from http://www.imanet.org/resources/strategicfinance/march-2013.aspx

Lee, W. E., & Schmidt, D. (2014). A multigroup analysis of students' intention to major in accounting before, during, and after the recession: Emergence of a professional ethics perception. *Advances in Accounting Education, 15,* 33–57. Retrieved from http://www.emeraldinsight.com/series/aae

Lehmann, C. M. (2010). Internal controls: A compendium of short cases. *Issues in Accounting Education*, *25*(4), 741-754. Retrieved from http://www.aaapubs.org

Lenard, M. J., Petruska, K. A., Alam, P., & Yu, B. (2012). Indicators of audit fees and fraud classification: Impact of SOX. *Managerial Auditing Journal, 27*(5), 500-525.doi:10.1108/0268901211228002

Lennon-Dearing, R. (2015). A model for teaching group work through service-learning in a Baccalaureate program. *Journal of Teaching in Social Work, 35*(5), 544-556. doi:10.1080/08841233.2015.1087935

Lennox, C., & Pittman, J. A. (2010). Big five audits and accounting fraud. *Contemporary Accounting Research*, *27*(1), 209-247.doi:10.1111/j.1911.3846.2010.01007.x

Li, S. (2010). Corporate financial fraud: An application of detection controlled estimation. *SSRN Working Papers Series*, 1. Retrieved from http://www.ssrn.com

Li, M., & Armstrong, S. J. (2015). The relationship between Kolb's experiential learning style and Big Five personality traits in international managers. *Personality and Individual Difference, 86*, 422-426.doi:10.1016/j.paid.2015.07.001

Li, P. & Byrnes, P. E. (2012). Forensic analytics: Methods and techniques for forensic accounting investigation. *Journal of Information Systems, 26*(1), 207-209. Retrieved from http://www.aaapub.org/loi/isys

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage Publications

Liu, X. K., Wright, A. M., & Wu, Y. (2015). Managers' unethical fraudulent financial reporting: The effects of control strength and control framing. *Journal of Business Ethics*, 129, 295-310.doi:10.1007/s10551-014-2156-1

Loeb, S. E. (2015). Active learning: An advantageous yet challenging approach to accounting ethics instruction. *Journal of Business Ethics, 127*, 221-230.doi:10.1007/s10551-013-2027-1

Lofland, C., & McNeal, A. (2014). What is your fraud IQ? *Journal of Accountancy, 217*(3), 46-50. Retrieved from http://www.journalofaccountancy.com

Lokanan, M. E. (2015). Challenges to the fraud triangle: Questions on its usefulness. *Accounting Forum, 39*(3), 201-224.doi:10.1016/j.accfor.2015.05.002

Lord, A. T. (2010). The prevalence of fraud: What should we, as academics, be doing to address the problem? *Accounting and Management Information Systems, 9*(1), 4-21. Retrieved from http://www.econpapers.repec.org

Madsen, P. E. (2015). Has the quality of accounting education declined? *American Accounting Education: The Accounting Review, 90*(3), 1115-1147. doi:10.2308/accr-50947

Mangala, D., & Kumari, P. (2015). Corporate fraud prevention and detection: Revisiting the literature. *Journal of Commerce and Accounting Research, 4*(1), 52-62. Retrieved from http://www.publishingindia.com

Marin, E. (2015). Experiential learning: Empowering students to take control of their learning by engaging them in an interactive course simulation environment. *Procedia-Social and Behavioral Science, 180*, 854-859. doi:10.1016/j.sbspro.2015.02.224

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research? A review of qualitative interviews in IS research. *The Journal of Computer Information Systems, 54* (1), 11-22. Retrieved from http://www.tandfonline.com/loi/ucis20

Martinov-Bennie, N., & Mladenovic, R. (2015). Investigation of the impact of an ethical framework and an integrated ethics education on accounting students' ethical sensitivity and judgment. *Journal of Business Ethics, 127*, 189-203. doi:10.1007/s10551-013-2007-5

Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum: Qualitative Social Research, 11* (3). Article No. 8. Retrieved from http://www.qualitative-research.net/index.php/fqs/article/view Article/ 1428/3027

Massingham, R., Massingham, R., & Diment, K. (2012). Q methodology: Is it useful for accounting research? *Qualitative Research in Accounting and Management, 9* (1), 66-88.doi:10.1108/11766091211216114

Mastilak, C., Matuszewski, L, Miller, F., & Woods, A. (2011). Designing honesty into your organization. *Strategic Finance, 93*(6), 35-41. Retrieved from http://go. galegroup.com.proxy1.ncu.edu/ps/retrieve.do?sgHITCountTyp...

Mastracchic, N. J., Jimenez-Angueira, C., & Toth, I. (2015). The state of ethics in business and accounting profession. *The CPA Journal*, 48-52. Retrieved from http://www.nysscpa.org

Matarneh, A. J., Moneim, U. A., & Al-Nimer, M. (2015). The intellectual convergence between the forensic audit and the external auditor toward the professionalism in Jordan. *International Journal of Business and Management, 10*(11), 138-148. doi:10.5539/ijbm.v10n11p138

Mathur, V., Dhillon, J., Kaira, G., Sharma, A., & Mathur, R. (2013). Survey of instructions to authors in Indian and British dental journals with respect to ethical guidelines. *Journal of the Indian Society of Pedodontics and Preventive Dentistry, 31*(2), 107-12.doi:10.4103/ 0970-4388.115711

McGimsey, C. L. & Whelan, D. (August, 2015). Forensic interviews: Plan to succeed. *Journal of Accountancy*, 34-42. Retrieved from http://www.journalof accountancy.com

McMahon, R., Pence, D., Bressler, L., & Bressler, M. S. (2016). New tactics in fighting financial crimes: Moving beyond the fraud triangle. *Journal of Legal, Ethical, and Regulatory Issues, 19*(1), 16-25.

Meier, H. H., Kamath, R. R., & He, Y. (2010). Courses on forensic and fraud examination in the accounting curriculum. *Journal of Leadership, Accountability, and Ethics, 8*(1), 25-33. Retrieved from http://www.na_businesspress.com /JLAEmeier.htm

Michaelson, C. (2015). Accounting for meaning: On § 22 of David Foster Wallace's The Pale King. *Critical Perspectives on Accounting, 29*, 54-64. doi:10.1016/j.cpa.2015.01.013

Miller, K. C., Proctor, T. Y., & Fulton, B. (2013). Teaching managerial responsibilities for internal controls: Perception gaps between accounting and management professors. *Journal of Accounting Education, 31*, 1-16. doi:10.1016/j.jaccedu.2012.12.001

Miller, S. E. (2010). An empirical investigation of the impact of the Sarbanes-Oxley Act of 2002 on agency costs. *Journal of Business & Economics Research, 8*(2), 25-47. Retrieved from http://www.cluteinstitute.com

Miller, W. F., & Becker, D. (2011). Ethics in the accounting curriculum: What is really being covered? *American Journal of Business Education, 4*(10), 1-9. Retrieved from http://www.cluteinstitute.com

Miller, W., Becker, D., & Pernsteiner, A. (2014). The accounting ethics course reconsidered. *Global Perspectives on Accounting Education, 11*, 77–98. Retrieved from http://gpae.bryant.edu/

Millum, J. (2012). Canada's new ethical guidelines for research with humans: A critique and comparison with the United States. *Canadian Medical Association Journal, 184*(6), 657-61. Retrieved from http://www.cmaj.ca

Mitrendu, N. R. (2015). Statutory auditors' independence in the protection of stakeholders' interest: A perceptual study. *The IUP Journal of Corporate Governance, XIV* (1), 40-67. Retrieved from http://www.iupindia.in

Mitric, M., Stankovic, A., & Lakicevic, A. (2012). Forensic accounting-The missing link in education and practice. *Journal for Theory and Practice Management, 65*, 41-50.doi:10.7595/management.fon.2012.0032

Modarres, A., & Rafiee, A. (2011). Influencing factors on the ethical decision making of Iranian accountants. *Social Responsibility Journal, 7*(1), 136-144.doi:10.1108/ 17471111111114594

Modugu, K. P., & Anyaduba, J. O. (2013). Forensic accounting and financial fraud in Nigeria: An empirical approach. *International Journal of Business and Social Science, 4*(7), 281-289. Retrieved from http://www.ijbssnet.com

Moffett, R. C., & Grant, G. H. (2011). Internal controls and fraud prevention. *Internal Auditing*, 26(2), 3-12. Retrieved from http://www.iaonline.theiia.org

Mohamed, N., & Jomitin, B. (2014). Application of fraud triangle in determining fraud risk: A case study of Malaysian local authority. *International Conference on Management (Indonesia), 4*, 420-432. Retrieved from http://www.conferenceallerts.com

Mohammed, N. C., & Tengku Akbar, T. A. (2011). What accountancy skills are acquired at college? *International Journal of Business and Social Science, 2* (18).n/a. Retrieved from http://www.ijbssnet.com

Morgan, A. R., & Burnside, C. (2014). Olympus Corporation financial statement fraud case study: The role the national culture plays in detecting & deterring fraud. *Journal of Business Case Studies, 10*(2), 175-184. Retrieved from http://www.cluteinsitute.com

Morgan, M., & Nix, W. (n.d). CPA perceptions of the marketability, career enhancements, and quality of services of Certified Fraud Examiners. *Southern Business & Economic Journal*, 31-50. Retrieved from http://www.business.aum.edu

Mouton, C. (2013). Fraud at work. *Accountancy Ireland, 45*(2), 38-39. Retrieved from http://www.accountancyireland.ie

Mui, G., & Mailley, J. (2015). A tale of two triangles: Comparing the fraud triangle with criminology's crime triangle. *Accounting Research Journal, 28*(1), 45-58. Retrieved from http://www.emeraldinsight.com

Munn-Giddings, C., McVicar, A., Boyce, M., & O'brien, N. (2016). Learning from older citizens' research groups. *Educational Gerontology, 42*(1), 58-69. doi:10.1080/036012277.2015.1065690

Muth, M. M., & Donaldson, L. (1998). Stewardship theory and board structure: A contingency approach. *Corporate Governance, 6,* 5-28. Retrieved from http://www.corpgov.net

Nagy, A. L. (2014). PCAOB quality control inspection reports and auditor reputation. *Auditing: A Journal of Practice & Theory, 33*(3), 87-104. Retrieved from http://www.aaajournals.org

National Fraud Authority. (2013). *Annual fraud indicator: June 2013*. Retrieved from http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206552/nfa-annual-fraud-indicator-2013.pdf

Neesham, C., & Gu, J. (2015). Strengthening moral judgment: A moral identity-based leverage strategy in business ethics education. *Journal of Business Ethics, 131*, 527-534.doi:101007/s10551-014-2483-2

Nelson, J., & Below, S. (2012). A penny saved is a penny earned: Avoiding investment losses through the early detection of financial shenanigans. *Journal of Applied Finance: Financial Management Association*, 118-144. Retrieved from http://www.journalofappliedfinance.org

Nix, W., & Morgan, M. (2013). Chief financial officers give credit to certified fraud examiners' fight against fraud. *Academy of Business Journal, 2,* 1-15. Retrieved from http://www.academyofbusinessjournal.com

Nnadi, M., & Rosser, M. (2014). The 'individualised accounting questions' technique: Using Excel to generate quantitive exercises for large classes with unique individual answers. *Accounting Education: An International Journal, 23*(3), 193–202.Retrieved http://aaapubs.org/loi/iace

Noddings, N. (2015). A richer, broader view of education. *Symposium: 21st Century Excellence in Education, Part 2, 52*, 232-236.doi:10.1007/s12115-015-9892-4

Noviyanti, S., & Winata, L. (2015). The role of "tone at the top" and knowledge of fraud on auditors' professional skeptical behavior. *Contemporary Management Research, 11*(1), 55-74. doi:10.7903/cmr.12239

O'Donnell, E. (July, 2016). Nurturing the human element: How one firm is pursuing audit quality through a career progression framework and timely feedback.

Journal of Accountancy, 28-33. Retrieved from http://www.journalof accountancy.com

O'Leary, C., & Stewart, J. (2013). The interaction of learning styles and teaching methodologies in accounting ethical instruction. *Journal of Business Ethics, 113*, 225-241.doi:10.1007/ s10551-012-1291-9

Ogoun, S., & Obara, L. C. (2013). Curbing occupational and financial reporting fraud: An alternative paradigm. *International Journal of Business and Social Science, 4*(9), 123-132. Retrieved from http://www.ijbsnet.com

Okafor, C., & Otalor, J. I. (2013). Narrowing the expectation gap in auditing: The role of the auditing profession. *Research Journal of Finance and Accounting, 4(*2), 43-52. Retrieved from http://www.iiste.org

Okoye, E. I., & Gbegi, D. O. (2013). Forensic accounting: A tool for fraud detection and prevention in the public sector: A study of selected ministries in Kogi state). *International Journal of Academic Research in Business and Social Sciences, 3*(3). Retrieved from http://www.hrmars.com

Olagbemi, F. O. (2010). *The effectiveness of federal regulations and corporate reputation in mitigating corporate accounting fraud*. (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses databases.

Ole-Kristian, H., Kang, T., Thomas, W. B., & Yoo, Y. K. (n.d). Impact of excess auditor remuneration on the cost of equity capital around the world. *Journal of Accounting, Auditing, & Finance*, 177-210. Retrieved from http://www.jaf.sagepub.com/content

Osgerby, J., & Rush, D. (2015). An exploratory case study examining undergraduate accounting students' perceptions of using twitter as a learning support tool. *The International Journal of Management Education, 13*, 337-348. doi:10.1016/j.ijme.2015.10.002

Osmani, M., Weerakkody, V., Hindi, N. M., Al-Esmail, R., Eldabi, T., Kapoor, K., & Irani, Z. (2015). Identifying the trends and impact of graduate attributes on employability: A literature review. *Tertiary Education and Management, 21*(4), 367-379. doi:10.1080/13583883.2015.1114139

Othman, R., Aris, N. A., & Mardziyah, A. (2015). Fraud detection and prevention methods in Malaysian public sector: Accountants' and internal auditors' perceptions. *Procedia- Economics and Finance, 28*, 59-67.doi:10.1016/s2212-567(15)01082-5

O'Reilly, N. D. (2015). Basic tips any organization should be aware of to help prevent and detect fraud. *Home Business Magazine*, 26. Retrieved from http://www. homebusinessmag.com

Oyedokun, E. (2014). *Forensic Accounting and Investigation: A means of curbing money laundering activities, the Nigerian Students' Economic and Finance Summit (NISEF*). Nigeria: Obafemi Awolowo University. Retrieved from http://www.reachgate.net

Ozman-Uysal, O. (2010). Business ethics with an accounting focus: A bibliometric analysis from 1988 to 2007. *Journal of Business Ethics, 93*(1), 137-160.doi: 10.1007/ s10551-009-0187-9

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sages.

Peltier-Rivest, D., & Lanoue, N. (2012). Thieves from within: Occupational fraud in Canada. *Journal of Financial Crime, 19*(1), 54-64.doi:10.1108/ 13590791211190722

Perkins, H. W., Perkins, J. M., Craig, D. W. (2014). No safe haven: Locations of harassment bullying victimization in middle schools. *Journal of School Health, 84*, 810-818. doi:10.1111/josh.12208

Peshori, K. S. (2015). "Forensic accounting a multidimensional approach to investigating frauds and scams." *International Journal of Multidisciplinary Approach and Studies (2348-537X), 2*(3), 26. Retrieved from http://www.read.issn.org

Peterson, B. K. (May/June, 2003). Fraud education for accounting students. *Journal of Education for Business,* 263-267.Retrieved from http://www.tandfonline.com

Peterson, K. (2012). Accounting complexity, misreporting, and the consequences of misreporting. *Review of Accounting Studies, 17*(1), 72- 95.doi:10.1007/s11142-011-9164-5

Peterson, J. (2016). Audit quality and the expectations gap: It's time for a model that fits the data. *The CPA Journal*, 6-9.

Petrini, C. (2010). Ethical issues in translational research. *Perspectives in Biology and Medicine, 53*(4), 517-33. Retrieved from http://www.nyuse.jhu.edu

Pettifor, J., McCarron, M. C. E., Schoepp, G., Stark, C., & Stewart, D. (2011). Ethical supervision in teaching, research, practice, and administration. *Canadian Psychology, 52*(3), 198-205.Retrieved from http://www.apa.org

Phillips, F., & Nagy, A. (2014). Does reading case responses and using graphic organizers enhance accounting students' case analyses? *Issues in Accounting Education, 29*(1), 149–168. Retrieved from http://aaapubs.org/loi/iace

Phillips, F., & Wolcott, S. (2014). Effects of interspersed versus summary feedback on the quality of students' case report revisions. *Accounting Education: An International Journal*, *23*(2), 174–190.Retrieved http://aaapubs.org/loi/iace

Phosrichan, N., & Ussahawanitchakit, P. (2013). Audit creativity, best audit practice and audit goal achievement: Evidence from tax auditors in Thailand. *Journal of International Finance Studies, 13*(3), 83-94. Retrieved from http://www.mdpi.com

Plesoianu, G., & Carstea, A. C. (2013). Experiential learning: An effective approach for gathering knowledge and capabilities in professional career. *Review of International Comparative Management. 14*(2), 310-322. Retrieved from http://www.rmci.ase.ro

Plumlee, D. R., Rixom, B. A., & Rosman, A. J. (2015). Training auditors to perform analytical procedures using metacognitive skills. *American Accounting Association*: *The Accounting Horizon*, *90*(1), 351-369.doi:10.2308/accr-50856

Poon, J. M., & Ainuddin, R. A. (2011). Selected ethical issues in the analysis and reporting of research: Survey of business school faculty in Malaysia. *Journal of Academic Ethics, 9*(4), 307-322.doi:10.1007/s10805-011-9142-3

Pope, R. K. (2015). Overhauling ethics education. *Strategic Finance*, 40-47. Retrieved from http://www.imanet.org

Popoola, O. M. J., Ahmad, A. C., & Rushami, Z.Y. (2013). Impact of task performance fraud risk assessment on forensic skills and mindsets: Experience from Nigeria. *International Journal of Business and Social Sciences*, *5*(9), 216-224.

Popoola, O. M. J., Ahmad, A. C., & Samsudin, R. S. (2014). Forensic accounting knowledge and mindset on task performance, fraud risk assessment. *International Journal of Business & Management, 9*(9), 118-134.Retrieved from http:// www. ccsenet.com

Popoola, O. M. J., Che-Ahmad, A. B., & Samsudin, R. S. (2016). Accountants' capability requirement for fraud prevention and detection in Nigeria. *International Journal of Economics and Financial Issues, 6*(S4), 1-10. Retrieved from http://www. econjournals.com

Pop-Vasileva, A., Baird, K., & Blair, B. (2014). The work-related attitudes of Australian accounting academics. *Accounting Education: An International Journal*, *23*(1), 1-21. Retrieved http://aaapubs.org/loi/iace

Priscilla, A. G. (2005). *Fundamentals of survey research methodology*. MITRE, Washington C3 Center, McLean, Virginia: MITRE Department, 1.1-3.1.

QSR International. (2015). Nvivo 11 [Software]. Retrieved from http://www. Qsrinternational.com

Quadackers, L., Groot, T., & Wright, A. (2014). Auditors' professional skepticisms neutrality versus presumptive doubt. *Contemporary Accounting Research, 31*(3), 639-657.doi:10.1111/1911-3846.12032

Ragland, L., & 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, 32*, 113-129.Retrieved from http://www.elsevier.com/locate/jaccedu

Rahman, A. R., & Anwar, I. S. K. (2014). Effectiveness of fraud prevention and detection techniques in Malaysia Islamic banks. *Procedia-Social and Behavioral Sciences, 145*, 97-102. Retrieved from http://www.sciencedirect.com

Rakestraw, T. L. (2014). The role of knowledge in the effectiveness of business ethics education. *Business Education Innovation Journal, 6*(2), 81-85. Retrieved from www. Beijournal.com

Ramadhan, S. (2015). Certified accountants' perceptions of forensic accounting education: The case of Bahrain. *International Journal of Finance and Accounting, 4*(2), 109-118.doi:10.5923/ijfa.20150402.01

Rebele, J. E., & Pierre, E. K. (2015). Stagnation in accounting education research. *Journal of Accounting Education, 33*, 128-137.doi:10.1016/j.jaccedu.2015.04.003

Regmi, K. (2011). Ethical and legal issues in publication and dissemination of scholarly knowledge: A summary of the published evidence. *Journal of Academic Ethics, 9*(1), 71-81.doi:10.1007/s10805-011-9133-4

Reidy, M., & Theobald, X. (2011). Financial reporting fraud prevention starts at the top. *Financial Executive, 27*(9), 46-50. Retrieved from http://www. Financialexecuties.org /kenticoCMS/Financial-Executives-Magazine

Reigle, D. R., Bunning, H., & Moore, S. (2009). *2009 Trends in the supply of accounting graduates and the demand for public accounting recruits*. Retrieved from http://www.aicpa.org/InterestAreas/ AccountingEducation/ NewsAndPublications/Documents/ 2009_TrendsReport.pdf

Reimer, J. (1977). Varieties of opportunistic research. *Urban Life, 5*, 467-477.

Reinholds, I., Bartkevics, V., Silvis, I. C. J., van Ruth, S. M., Esslinger, S. (2015). Analytical techniques combined with chemometrics for authentication and determination of contaminants in condiments: A review. *Journal of Food Composition and Analysis, 44*, 56-72. Retrieved from http://www.elsevier.com/ locate/jfca

Reinig, B. A., Horowitz, I., & Whittenburg, G. (2014). Determinants of student attitudes toward team exams. *Accounting Education: An International Journal, 23*(3), 244–257. Retrieved http://aaapubs.org/loi/iace

Richardson, R., & Gabbin, A. (August 2016). Recruiting the best: What CPAs could learn from college coaches. *Journal of Accountancy*, 44-50. Retrieved from http://www.journalofaccountancy.com

Richardson, G., Taylor, G., & Wright, C. S. (2014). Corporate profiling of tax-malfeasance: A theoretical & empirical assessment of tax-audited Australians firms. *EJournal of Tax Research, 12(*2), 359-382. Retrieved from http://www.business.unsw.edu

Rishi, M., & Singh, A. (2011). Corporate governance and international best practices: The case of Satyam. *Journal of Services Research, 11*(1), 121-142. Retrieved from http://www.jsr.sagepub.com

Robbin, W. (2011). AICPA? CICA's generally accepted privacy principles: A tool for forensic accountants. *Forensic Examiner, 20*(2), 12-20. Retrieved from http://www.theforensicexaminer.com

Roden, D. M., Cox, S. R., & Kim, J. Y. (2016). The fraud triangle as predictor of corporate fraud. *Academy of Accounting and Financial Studies Journal, 20*(1), 80-92.

Rodgers, W., Söderbom, A., & Guiral, A. (2015). Corporate social responsibility enhanced control systems reducing the likelihood of fraud. *Journal of Business Ethics, 131*(4), 871-882.doi:10.1007/s10551-014-2152-5

Rossouw, G. J. (2011). Business ethics as field of teaching, training and research in Sub-Saharan Africa. *Journal of Business Ethics, 104*, 83-92.doi:10.1007/ s10551-012-1265-y

Roy, M. N. (2015). Statutory auditors' independence in the context of corporate accounting scandal: A comparative study of Enron and Satyam. *IUP Journal of Accounting Research & Audit Practices, 14*(2), 7-28. Retrieved from http://www.iupindia.in

Roxas, M. L. (2011). Financial statement fraud detection using ratios and digital analysis. *Journal of Leadership, Accountability and Ethics, 8*(4), 56-66. Retrieved from http://www.na-businesspress.com

Rufus, R. J., & Hahn, W. (2011). Mountain state sporting goods. A case of fraud? A case study in fraud examination. *Issues in Accounting Education: American Accounting Association, 26*(1), 201-217.doi:10.2308/iace.2011.26.1.201

Sabau, A. S. (2012). Survey of clustering based financial fraud detection research. *Informatica Economica, 16*(1), 110-122. Retrieved from http://www. revistale.ase.ro

Sacks, H. (1992). *Perhaps as researchers today we need to lessen our dependence on the interview itself: Lectures on conversation*, volume 1, Cambridge, MASS: Blackwell Publishers.

Saeidi, F. (2012). Audit expectations gap and corporate fraud: Empirical evidence from Iran. *African Journal of Business Management, 6*(23), 7031-7041. doi:10.5897/AJBM12.382

Sajay, S. (2015). CCA-A new pathway for accounting majors. *Strategic Finance*, 33-39. Retrieved from http://www.sfmagazine.com

Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Los Angeles, CA: Sage Publications.

Salem, M. S. M. (2012). An overview of research on auditor's responsibility to detect fraud on financial statements. *Journal of Global Business Management, 8*(2), 218-229. Retrieved from http://www.gbmn.ioksp.com

Sanchez, M. H. (2015). Introducing the concepts of sustainability and corporate social responsibility to accounting students. *Business Education & Accreditation, 17*(2), 69-73. Retrieved from http://www.theIBFR.com

Sangster, A., Franklin, E., Alwis, D., Abdul-Rahim, J., & Stoner, G. (2014). Using Pacioli's pedagogy and medieval text in today's introductory accounting course. *Journal of Accounting Education*, *32*(1), 16–35. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Sankaran, S., & Bui, T. (2013). Ethical attitudes among accounting majors: An empirical study. *Journal of American Business Review, Cambridge, 1*(2), 69-75. Retrieved from http://www.jaabc.com/journals.htm

Sarwoko, I., & Agoes, S. (2014). An empirical analysis of auditor's industry specialization, auditor's independence, and auditor's procedures on audit quality: Evidence from Indonesia. *International Conference on Accounting Studies; Procedia-Social and Behavioral Sciences, 164*, 271-281.Retrieved from www.sciencedirect.com

Schelle, L., Petracchi, H. E., & Weaver, A. (2014). Benefits and challenges of service-learning in baccalaureate social work education. *Journal of Social Work Education, 34*, 480-495.Retrieved from http://www.cswe.org

Schiavone, J. (2015). AICPA Trends report finds accounting enrollments reach an all-time- high. *Accounting Education*, 1-3. Retrieved from http://www.aicpa.org

Scholz, S. (n.d). *Financial restatement trends in the United States: 2003-2013.* Retrieved from http://www.thecaq.org/docs/reports-and-publications/financial-restatement-trends-in-the-united-states-2003-2012.pdf?sfvrsn=2

Schuchler, A., & Levi, M. (2015). Beyond the fraud triangle: Swiss and Australian elite fraudsters. *Accounting Forum, 39*, 176-187. Retrieved from http://www.elsevier.com/licate/accfor

Schuchter, A. & Levi, M. (2016). The fraud triangle revisited. *Security Journal, 29*(2), 107-121.doi:10.1057/sj.2013.1

Schultz, M. (2014). Teaching and assessing ethics and social responsibility in undergraduate science: A position paper. *Journal of Learning Design (Science Education), 7*(2), 136-147. Retrieved from http://www.jld.edu.au/ article/ view/2013

Scott, D., & User, R. (2010). *Researching education: Data, methods, and theory in education enquiry*. London, GBR: Continuum International Publishing.

Scully, G., & Kerr, R. (2014). Student workload and assessment: Strategies to manage expectations and inform curriculum development. *Accounting Education: An International Journal*, *23*(5), 443–466. Retrieved http://aaapubs.org/loi/iace

Seda, M., & Kramer, B. P. (2009). State of forensic accounting tracks at the university undergraduate, graduate levels, and the related need to change the educational model used in the accounting curriculum. *Journal of Forensic Studies in Accounting and Business*, 23-50. Retrieved from http://www.coba.georgiasouthern.edu

Sengur, E. D. (2012). Auditors' perception of fraud prevention measures: Evidence from Turkey. *Annales Universitatis Apulensis: Series Oeconomica, 14*(1), 128-138. Retrieved from http://www.uab.ro

Seow, P. S., Pan, G., & Tay, J. (2014). Revisiting the determinants of student performance in an undergraduate accountancy degree programme in Singapore. *Global Perspectives on Accounting Education, 11*, 1–23. Retrieved from http://gpae.bryant.edu/

Sewchuk, D. H. (2005). Experiential learning: A theoretical framework for perioperative education. *AORN Journal, 81*(6), 1311-1318. Retrieved from http://www.aornjournal.org

Shanikat, M., & Khan, A. (2013). Culture-specific forensic accounting conceptual framework: A skills set theoretical analysis. *International Journal of Business and Management, 3*(15), 112-123. http://dx.doi.org/10.5539/ijbm.v8n15p112

Shank, G. D. (2006). *Qualitative research: A personal skill approach*. (2 ed.). Upper Saddle River, NJ: Pearson Education.

Shapiro, D. M. (2015). The use of forensic accountants shouldn't be limited to only to legal proceedings. They can help companies uncover and address a number of concerns. *Strategic Finance*, 47-53. Retrieved from http://www.sfmagazine.com

Shawver, T. J., & Miller, W. F. (2015). Moral intensity revisited: Measuring the benefit of accounting ethics interventions. *Journal of Business Ethics*, 1-17. doi:10.1007/s10551-015-2714-4

Shenton, A. K., & Hayter, S. (2004). Strategies for gaining access to organizations and informants in qualitative studies. *Education for Information, 2*, 223-231. Retrieved from http://www.lospress.nl

Shinde, J. S., Willems, J., Sallehu, M. M., & Merkle, M. P. (2015). Establishment of GAAS: Impact of an auditing fraud. *Journal of Accounting and Finance, 15*(1), 40-54. Retrieved from http://www.onlinelibrary.wiley.wiley.com

Simha, A., & Satyanarayan, S. (2016). Straight from the horse's mouth: Auditors' on fraud detection and prevention, role of technology, and white-collars getting splattered with red! *Journal of Accounting and Finance, 16*(1), 26-44. Retrieved from http://worldcat.org/ title/journal-of-accounting-finance-2158-3624/oclc/ 828103250

Simons, K. A., & Riley, T. J. (2014). Communication apprehension in accounting majors: Synthesis of relevant studies, intervention techniques, and directions for future research. *Advances in Accounting Education, 15*, 1–32. Retrieved from http://www.emeraldinsight.com/series/aae

Singer, R. A., & Wiesner, T. (2013). The future of undergraduate accounting programs and curricula. *Management Accounting, 14*(4), 1-11. Retrieved from http://www.imanet.org

Singh, K., Best, P., & Mula, J. (n.d). Automating vendor fraud detection in enterprise systems, *Journal of Digital Forensic Security and Law, 8*(2), 1-42. Retrieved from http://www.jdfsl.org

Siriwardane, H. P., & Durden, C. H. (2014). The communication skills of accountants: What we know and gaps in our knowledge. *Accounting Education: An International Journal*, *23*(2), 119–134. Retrieved http://aaapubs.org/loi/iace

Siriwardane, H. P., Hu, B. K. H., & Low, K. Y. (2014). Skills, knowledge, and attitudes important for present day auditors. *International Journal of Auditing, 18*, 193-205.doi:10.1111/ijau.12023

Sisaye, S. (2011). The functional-institutional and consequential-conflictual sociological approaches to accounting ethics education. *Managerial Auditing Journal, 26*(3), 263-294.doi:10.1108/02686901111113208

Small, M. L. (2009). How many cases do I need? Or science and the logic of case selection in field-based research, *Ethnography, 10* (1), 5-38.

Smerek, R. (2009). *Sensemaking & sensegiving: Leadership processes of new college presidents* (Doctoral Dissertation)

Smith, G. S. (2015). The past, present, and future of forensic accounting. *The CPA Journal*, 17-21. Retrieved from http://www.nysscpa.org

Soltani, B. (2014). The anatomy of corporate fraud: A comparative analysis of high profile American and European corporate scandals. *Journal of Business Ethics, 120*, 251-274.doi:10.1007/s10551-013-1660-z

Song, C. (2011). Problems and countermeasures on corporate internal audit in China. *Asian Social Sciences, 7*(1), 191-193. Retrieved from http://www.ccscnet.org

Spiceland, C. P., Spiceland, J. D., & Schaeffer, III, S. J. (2015). Using a course redesign to address retention and performance issues in introductory accounting. *Journal of Accounting Education, 33*, 50-68. Retrieved from http://www.elsevier.com /locate/jaccedu

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sages Publications, Inc.

Stake, R. E. (2006). *Multiple-case study analysis*. New York City, NY: The Guilford Press.

Stone, G., Fiedler, B. A., & Kandunias, C. (2014). Harnessing Facebook for student engagement in accounting education: Guiding principles for accounting students and educators. *Accounting Education: An International Journal*, *23*(4), 295–321. Retrieved http://aaapubs.org/loi/iace

Stone, G., Lightbody, M., & Whait, R. (2013). Developing accounting students' listening skills: Barriers, opportunities, and an integrated stakeholder approach. *Accounting Education: An International Journal, 22*(2), 168-192.doi:1080/ 09639284.2013.766015

Strudgeon, G. (2014). Eliminating duplication: An external auditor's perspective. *The Journal of Government Financial Management, 63*(3), 56-57. Retrieved from http://www.agacgfm.org

Swanson, Z. L. (2014). Hyperbolic browser for ERP accounting system pedagogy and curriculum management. *Global Perspectives on Accounting Education, 11*, 25–39. Retrieved from http://gpae.bryant.edu

Swedberg, J. (2014). Fraud protection. *Credit Union Management, 37*(1), 34-37. Retrieved from http://www.cumanagement.org

Tahir, F. A., Idris, K. M. D., & Ariffin, Z. Z. (2014). Measuring Nigerian stakeholders' perceptions of auditor independence: A proposed framework. *Asian Social Science, 10*(14), 81-92. Retrieved from http://www.ccsenet.org

Tan, A., Chatterjee, B., & Bolt, S. (2014). The rigour of IFRS education in the USA: Analysis, reflection and innovativeness. *Accounting Education: An International Journal, 23*(1), 54–70. Retrieved http://aaapubs.org/loi/iace

Thomas, S. (2012). Ethics and accounting education. *American Accounting Association: Issues in Accounting Education, 27*(2), 399-418.doi:10.2308/iace-50119

Timmermans, S., & Tavory, I. (2012). Theory construction in qualitative research: From ground theory to abductive analysis. *Sociological Theory, 30,* 167-186. Retrieved http://stx.sagepub.com

Tormo-Carbo, M., Segui-Mas, E., & Oltra, V. (2016). Accounting ethics in unfriendly environments: The educational Challenge. Journal of Business Ethics, 135, 161-175.doi:10.1007/s10551-014-2455-6

Totty, P. (2014). The changing face of fraud. *Credit Union Magazine, 80*(5), 50-52. Retrieved from http://www.creditunionmagazine.com

Tower-Clark, J. (2015). Undergraduate accounting students: Prepared for the workplace? *Journal of International Education in Business, 8*(1), 37-48.doi:10.1108/JIEB-11-2013-0043

Tran, T. T. (2015). Is graduate employability the 'whole of-higher-education-issue'? *Journal of Education and Work, 28*(3), 207-227, doi: 10.1080/13639080.2014.900167

Trochim, W., & Donnelly, J. (2008). *The research methods knowledge base*. Mason, OH: Cengage.

Trofman, K. T., Bauer, T. D., & Humphrey, K. A. (2015). Group judgment and decision making in auditing: Past and future research. *Accounting, Organization and Society, 47*, 56-72.doi:10.1016/j.aos.2015.09.004

Trompeter, G. M., Carpenter, T. D., Desai, N., Jones, K. L., & Riley, R. A. (2013). A synthesis of fraud-related research. *Auditing: A Journal of Practice & Theory, 32*(1), 287-321.doi:10.2308/ajpt-50360

Trompeter, G. M., Carpenter, T. D., Jones, K. L., & Riley, R. A. (2014). Insight for research and practice: What we learn about fraud from other disciplines. *American Accounting Association: Accounting Horizons, 28*(4), 769-804.doi: 10.2308/acch-50816

Trung, N. K. Q. (2016). Professional ethics in accounting curriculum at a Vietnamese university. *International Journal of Management, Accounting, and Economics, 3*(4), 2383-2126. Retrieved from http://www.ijmae.com

Tsegba, I. N., & Upaa, J. U. (2015). Consequences of financial statement fraud: A developing country perspective. *International Journal of Business and Management, 10*(8), 115-126.doi:10.5539/ijbm.v10n8p115

Tsegba, I. N., Upaa, J. U., & Tyoakosu, S. A. (2015). Determinants of unethical financial reporting: A study the views of professional and academic accountants in Nigeria. *International Business Research, 8*(6), 29-44.doi:10.5539/ibr.v8n6p29

United States Department of Labor (2015, September). *Occupational Employment and Wages*. Retrieved from http://bls.gov/oes

Upping, P., & Oliver, J. (2011). Thai public universities: Moderation of accounting practices. *Journal of Accounting & Organizational Change, 8* (3), 403-430. doi:10.1108/1832591121125826

Uyar, A., & Gungormus, A. H. (2011). Professional knowledge and skills required for accounting majors who intend to become auditors: Perceptions of external auditors. *Business and Economics Research Journal, 2*(3), 33-49. Retrieved from http://www.berjournal.com

Vaiman, V., & Rikhardsson, P. (2015). Managers' views on ethics education in business schools: An empirical study. *Journal of Business Ethics, 130*, 1-13. doi:10.1007/s10551-014-2202-x

Vakkur, N. V., McAfee, P. R., & Kipperman, F. (2010). The unintended effects of the Sarbanes-Oxley Act of 2002. *Research in Accounting Regulation, 22*, 18-28.doi: 10.1016/j.racreg.2010.02.001

van Zyl, C., & de Villiers, C. (2011). Why some students choose to become chartered accountants (and others do not). *Meditari Accountancy Research, 19*(1), 56-74.doi:10.1108/10222521111178637

Verschoor, C. C. (2015). Overcoming the fraud triangle. *Strategic Finance*, 17-18. Retrieved from http://www.sfmagazine.com

Vladu, A, B., & Cuzdnorean, D. D. (2013). Creative accounting, measurement and behavior. *Annales Universitatis Apulensis: Series Oecomica, 15*(1), 107-115. Retrieved from http://www.uab.ro

Walker, N., & Holtfreter, K. (2015). Applying criminological theory to academic fraud. *Journal of Financial Crime, 22*(1), 48.doi:10.1108/JFC-12-2013-0071

Wang, L. C., & Calvano, L. (2015). Is business ethics education effective? An analysis of gender, personal ethical perspectives, and moral judgment. *Journal of Business Ethics, 126*, 591-602.doi:10.1007/s10551-013-1973-y

Warinda, T. (2013). Faculty views on the teaching of ethics to accounting students: The Zimbabwean perspective. *Asian Social Science, 9*(2), 191-202.Retrieved from doi:10.5539/ass.v9n2p191

West, J. & Bhattacharya, M. (2016). Intelligent financial fraud detection: A comprehensive review. *Computer and Security, 37*, 47-66. doi:10.1016./j.cose.2015.09.005

West Virginia University. (2007). Education and training in fraud and forensic accounting: A guide for educational institutions, stakeholders' organizations, faculty, and students. Retrieved fromhttp://www.ncjrs.gov/pdffiles1/nij/grants/217589.pdf

Wilhelm, W. J., & Czyzewski, A. B. (2012). Ethical reasoning instruction in undergraduate cost accounting: A non-intrusive approach. *Academy of Educational Leadership Journal, 16*(2), 131-142. Retrieved from http://www.alliedacademies.org

Wilkin, C. L. (2014). Enhancing the AIS curriculum: Integration of a research-led, problem-based learning task. *Journal of Accounting Education, 32*(2), 185-199. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

William, B. (2011). *Ethics and the limits of philosophy*. Hoboken, NJ: Taylor & Francis.

Wilson, E. (2013). An historical perspective on governmental accounting education. *Journal of Accounting Education*, *31*(3), 244–251. Retrieved from http://www.journals.elsevier.com/journal-of-accounting-education

Wilson, R. M. S. (2014). *The Routledge companion to accounting education*. New York, NY: Routledge.

Wiroterat, C., Ussahawanitchakit, P., & Muenthisong, K. (2014). Audit professional well-roundedness and audit success. *International Journal of Business Strategy, 14*(3), 7-26. Retrieved from http://www.ijmrbs.com

Yallapragada, R. R., Roe, C. W., & Toma, A. G. (2012). Accounting fraud, and white-collar crimes in the United States. *Journal of Business Case Studies (Online), 8*(2), 187. Retrieved from http://www.cluteinstitute.com

Yap, C., Ryan, S., & Yong, J. (2014). Challenges facing professional accounting education in a commercialised education sector. *Accounting Education: An International Journal, 23*(6), 562–581.Retrieved http://aaapubs.org/loi/iace

Yin, R. K. (2009). *Case study research: Design and research*. Thousand Oaks, CA: Sage

Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: The Guilford Press.

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage

Yu, S., Churyk, N. T., & Chang, A. (2013). Are students ready for their future accounting careers? Insights from observed perception gaps among employers, interns, and alumni. *Global Perspectives on Accounting Education, 10,* 1-5. Retrieved from http://gpae.bryant.edu/

Yusof, N. A. M., & Lai, M. L. (2014). An integrative model in predicting corporate tax fraud. *Journal of Financial Crime, 21* (4), 424-432.doi:10.1108/JFC-03-2013.0012

Zack, G. (2014). Hog fraud, negligent audit committee, disclosure omissions and more. *Fraud Magazine, 29*(6), 16-17. Retrieved from http://www.fraud-magazine.com

Zager, L., Malis, S. S., & Novak, A. (2016). The role and responsibility of auditors in prevention and detection of fraudulent financial reporting. *Procedia Economics and Finance, 39,* 693-700.doi:10.1016/S2212-5671(16)30291-X

Zamojcin, K. A., & Bernardi, R. A. (2013). Ranking North American accounting scholars publishing accounting education papers: 1966–2011. *Journal of Accounting Education, 31*(2), 194–212. Retrieved from http://www.journals.elsevier.com /journal-of-accounting-education

Zhou, Z., Nakano, C., & Luo, B. N. (2011). Business ethics as field of training, teaching, and research in East Africa. *Journal of Business Ethics, 104,* 19-27.doi:10.1007/ s10551-012-1259-9

Zigmont, J. J., Edwards, T., & Mitchell, J. (2015). Utilization of experiential learning, and the learning outcomes model reduces RN orientation time by more than 35%. *Clinical Simulation in Nursing, 11,* 79-94. Retrieved from http://www.elsevier. com/locate/ecsn

Zucker, D. M. (2009). Teaching research methods in the humanities and social sciences: How to do case study research. *School of Nursing Faculty Publication Series, Paper 2,* 1-20. Retrieved from http://www.scholarworks.umass.edu

Appendices

Appendix A: Standard Open-Ended Interview Questions

- Researcher preamble, purpose of study and interview approach
- Explanation of anonymity of participation and assurance of confidentiality of data collected
- Obtain participants' signatures on informed consent form and answer participants' questions.

Questions for Participants

Thank you for your voluntary participation in this study. In the course of this interview, I am going to ask you a series of questions about fraud education, competencies of accounting students, and strategies for detecting corporate fraud in your audit practice.

A. Detection of corporate fraud. Having introduced the participant to the study, ask the participant:

1. How do you perceive your role in detecting corporate fraud?
2. Describe your responsibilities for detecting corporate fraud?
3. Describe your experiences with detecting corporate fraud. Not mentioning names of institutions but providing your experiences in general, how did you address the corporate fraud?

Thank you for your insightful response. Now I am going to ask you a series of questions about fraud education that you may have received from your undergraduate accounting program.

B. Fraud education received from undergraduate programs. After participant has described the detection of corporate fraud, ask:

4. How do you describe the fraud education you received in your undergraduate accounting program?
5. How do you perceive the ethics training you received in college?
6. How helpful was your fraud education in undergraduate accounting program in detecting corporate fraud in your auditing practice?
7. What other education around corporate fraud would you have liked to receive in college?

Thank you for your in-depth response. Now I am going to ask you a series of questions about fraud education that you may have received on-the- job.

C. Fraud education received on-the-job. After participant has described fraud education from undergraduate programs, ask:

8. How do you describe the fraud education you received on-the-job?
9. How do you perceive the ethics education you received on-the-job?

10. How helpful do you perceive the fraud education on-the-job to be in detecting corporate fraud in your auditing practice?
11. What other education around corporate fraud detection would you like to receive on-the-job?

Thank you for your candid response. Now I am going to ask you a series of questions on expected competencies of undergraduate accounting students.

D. Expected competencies of accounting students for undergraduate accounting programs. After participant has described the fraud education that may have been received on-the- job, ask:

12. How do you describe the expected competencies of undergraduate accounting students for detecting fraud?
13. How helpful do you perceive these expected competencies might be in undergraduate accounting majors in preparing them to detect corporate fraud?
14. What other competencies should accounting students possess in detecting corporate fraud?

Thank you for your candid response. Now I am going to ask you a series of questions about strategies for incorporating fraud education into undergraduate accounting programs.

E. Strategies for incorporating fraud education into undergraduate accounting programs. Ask the participant the following questions, after the expected competencies of undergraduate accounting students have been described:

15. How do you perceive the need for integrating fraud education into the undergraduate accounting programs?
16. How would you like fraud education to be integrated into the undergraduate accounting programs?
17. How helpful has your undergraduate fraud education been in your auditing practice in detecting corporate fraud?
18. How helpful has your on-the-job fraud education been in your auditing practice in detecting corporate fraud?

Thank you for your insightful response. Now I am going to ask you a series of questions about strategies for detecting corporate fraud in audit practice.

F. Strategies for detecting corporate fraud in audit practice. After participant has described the strategies for incorporating fraud education into undergraduate accounting programs, ask about:

19. What do you perceive to be the strategies to detect corporate fraud in auditing practice?

20. What strategies could be used to detect corporate fraud?

Thank you for your candid response. Now I am going to ask you a series of questions about overall assessment of fraud education.

G. Overall assessment of fraud education. After participant has described the strategies to detect corporate fraud in audit practice, ask the following questions:

21. How do you perceive the sufficiency of fraud education you received in your undergraduate accounting programs?
22. How do you describe the adequacy of fraud education you received on-the-job?

Thank you for your insightful response. Now I am going to ask you a series of background questions.

H. Gather participant's background information. Ask the participant:

23. What type of bachelor's degree did you earn from college?
24. Which university or college, state or country, did you receive your bachelor's degree from?
25. What type of masters or doctorate degree(s) did you earn from the university?
26. In what year did you earn your bachelor's degree?
27. What professional certifications do you hold?
28. How many years have you been practicing as an external auditor in Northern Illinois?
29. What is your age and gender?

Thank you for your in-depth response to my questions. Now I am going to end the interview here and would get back to you.

- Thank the participant
- Request participant to confirm contacts on the informed consent forms to be used for follow-up during data validation
- Provide the participant with the interviewer's telephone number on the informed consent form.
- Give a "take home" copy of the informed consent form to the participant.

End of Interview

Field Test Write Up Summary Form

Researcher's Name: George Appiah-Sokye

Title of the Study: Exploratory Multiple-Case Study of Illinois External Auditors' Perceptions of Fraud Education in Undergraduate Accounting Programs

Dissertation Chair's Name: Dr. Sharon Kimmel

Date: February 28, 2016

Instructions: Please answer all the questions below.

1a. How many experts participated in the field test?

Three (3) experienced experts participated in the field test involving: one (1) accounting practitioner, one (1) accounting academic, and one (1) qualitative researcher.

1b. Identify each participant's expertise relevant to the proposed research study topic and/or methodology.

Expert 1: Experienced Accounting Practitioner

Dr. Emmanuel A. Appiah [DBA, MBA, BSBA, B.Acc, CPA/CFE, CFE, CGMA, CICA, FCPA]

Dr. Emmanuel A. Appiah is the President/CEO and founder Ghanamerica Financial Consulting, CPAs, LLC. He holds a DBA, MBA, and two bachelors' degrees all in accounting. He also holds the following professional certifications: Certified Public Accountant/Certified in Financial Forensics (CPA/CFF), Certified Fraud Examiner (CFE), Chartered Global Management Accountant (CGMA), Certified Internal Control Auditor (CICA), Forensic Certified Public accountant (FCPA). Dr. Appiah has over 16 years of auditing experience in both governmental and private sectors. He has held the positions of senior audit technical support auditor and lead, senior auditor, and staff auditor.

Dr. Appiah has been an editorial board member of both the Journal of Accountancy of the American Institute of Certified Public Accountants (AICPA) since 2008 and the Fraud Magazine of Association of Certified Fraud Examiners (ACFE) since March 2008. He is actively involved with Greater Washington Society of Certified Public Accountants (CPAs) as a committee member for Financial Literacy and Education Outreach. Dr. Emmanuel A. Appiah is an active member of the following professional associations: American Institute of Public Accountants (AICPA), Association of Certified Fraud Examiner (ACFE), Greater Washington Society of CPAs, American Society of Military Comptrollers (ASMC), Association of Government Accountants (AGA), Golden Key international Honour Society, Beta Alpha Psi, and Delta Mu Delta.

Expert 2: Experienced Accounting Academic

Dr. Bright Asante-Appiah [DBA, MBA, B.Com, CPA, CFE, ACCA]

Dr. Bright Asante-Appiah is an Assistant Professor of Accounting, consultant and academic with considerable experience in public accounting, industry, and academia. He holds a DBA, MBA, and B.Com degrees all in accounting. He also holds the following professional certifications: Certified Public Accountants (CPA), and Certified Fraud Examiner (CFE).

Dr. Asante-Appiah has over 15 years of auditing experience in public accounting, industry, and academia; both at home and abroad. He has assumed a number of senior level positions in auditing and also a Clendenin Graduate Fellow of Kennesaw State University. Dr. Asante- Appiah maintains active membership in the following professional associations: American Institute of Public Accountants (AICPA), Association of Certified Fraud Examiners (ACFE), Illinois CPA Society, Chartered Global Management Accountants (CGMA), Association of Chartered Certified Accountants (ACCA-UK) and American Accounting Association (AAA).

Expert 3: Experienced Qualitative Researcher

Dr. Sharon Kimmel [PhD, M.H.A, B.S]

Dr. Sharon Kimmel is a Dissertation Chair of the Graduate School of Northcentral University, Arizona with extensive research experience in qualitative studies. She holds a PhD in Applied Social Research and Management Technology, M.H.A, and B.S degrees. Dr. Kimmel holds the following certifications: Advanced Study in Epidemiology and Biostatistics, Certified Clinical Research Professional (CCRP), Project Management Professional (PMP); and a facilitator with Team Based Strategic Planning. Dr. Kimmel has over 20 years of managerial and administrative experience. Her areas of expertise in research include: research design, data management, and statistical analysis. Others include: program management, integration, and reorganization; training, change management, and mentoring. She has taken up a number of academic and professional positions such as: Dissertation Chair, Graduate School faculty, Director of Quality Assurance and Data Management, Senior Research Scientist, and Business Communication Program Coordinator. Dr. Kimmel has undertaken and supervised quantitative, qualitative and mixed research, and has also published articles in the following Journals: Journal of Reproductive Medicine, Journal of Nursing Administration, and Academic Emergency Journal. Dr. Kimmel is a member of the following associations: Project Management Institute, Society of Clinical Research Associates (SoCRA), and American Management Association.

FIELD TEST

Overview: The interview guide was field tested by three experts comprising: one accounting academic, one accounting practitioner, and one qualitative researcher in order to establish understandability of the questions, and to lend credibility and dependability to the interview process. The field test helped the researcher in developing clear, relevant, and important interview questions for this study.

Purpose: The purpose of the field test was to ask three experts to review the draft interview protocol with a view to:

1. Providing feedback on the appropriateness of the research questions in the interview protocol in order to assist the principal researcher to answer the research questions and also provide sufficient and appropriate data for the study;
2. Providing additional questions that the researchers should be asking; and

3. Providing feedback on procedural guidance for directing the principal investigator through the research process.
Outcome: The feedback received from the three experts were integrated into the draft interview protocol to develop a revised interview guide to be deployed in the actual dissertation research project.
Modification: The interview guide was revised in response to experts' feedback.

2. If you validated an instrument(s) in the field test phase, please summarize the findings about the validity and reliability of the instrument(s) you piloted.

Not Applicable

3. For the actual dissertation study, are you revising any of the sampling/recruitment procedures and research procedures that you wrote in the Dissertation Proposal?
___ Yes _X___ No

(***Please answer yes or no. If you answer yes, please summarize what procedures you are changing and the rationale. Your rationale should be based on the findings from your field test***).

Not Applicable

4. What other changes (from the Dissertation Proposal proposed study plan) for the actual dissertation research study are you proposing to implement based on what you learned in the field test?

After feedbacks were received from the three experts through field testing, the entire draft interview protocol was revised. The revised interview guide will be utilized for the conduct of the actual doctoral dissertation after IRB approval.

Signature of Student Researcher: George Appiah-Sokye
Date: February 28, 2016
Signature of the Dissertation Chair:
Date:

Appendix B: E-mail Invitation to Participate

Exploratory Multiple-Case Study of Illinois External Auditors' Perceptions of Fraud Education in Undergraduate Accounting Programs

Dear [External Auditor's Name],

George Appiah-Sokye is my name. I am a doctoral student of Northcentral University in Prescott in the state of Arizona. I am an auditor working in the Northern Illinois area. The list of members of [name of professional accounting body] from the website was used to get your contact details.

I am conducting a research study on external auditors' views on the expected competencies and fraud detection topics and courses from their undergraduate accounting programs that prepared them to detect corporate fraud.

I am inviting you to take part in this dissertation study if you meet the following criteria: (a) have a first degree in accounting from any university, (b) have 1 year experience as external auditor, and (c) reside in the Northern Illinois area of the state of Illinois.

You should meet the above criteria before you agree to take part in the study because you will be asked to answer some questions in a face-to-face interview. Your answers will help to explain the views of the external auditors on the expected competencies and fraud detection topics and courses from their college accounting programs that helped to prepare them to detect corporate fraud. Your answers will be repeated back to you to ensure that your responses have been fully captured.

The interview will be recorded on paper and also through a digital voice recorder. If you agree to take part in the interview for this study, kindly contact me to schedule a time, date, and place for the interview. The interview will take place at any public library in towns and cities where you work or reside. The interview may last for over 1 hour.

There are minimal risks for your taking part in the study. You are free to take part in the study or to withdraw from taking part at any time. There is no penalty when you decide to stop taking part in the study. You can refuse to answer any question if you decide not to answer them. In that case your data will not be used in the study. You will come to know your role as an external auditor as a potential benefit in the study.

The answers you give to the researcher will be kept confidential. The data will be kept for 7 years in a secured place. I am the only person who will keep the data. The study data

will be compiled. I will not use any answer you give to let people know you gave them. Your data will be put together with those of others in the results of the study.

If you agree to take part in this study, you will be asked to sign an informed consent form. The form is to show that you want to take part in the study after you have known the risks and benefits for taking part in the study.

If you have any questions on this study, you may contact me at: 1-630-506-2025 or by email. My dissertation chair, Dr. Sharon Kimmel can be reached on: 1-610-452-2729 or via email: skimmel@ncu.edu. If you want to talk to someone outside of the study team, contact: Institutional Review Board (IRB) of Northcentral University. Their contact address is: irb@ncu.edu or 1-888-327-2877 extension 8014.

If you like to know more about the study or wish to take part in the study, kindly let me hear from you within 7 days. You may send me email to let me know that you do not want to take part in the study. You may talk about the study with other external auditors who may be interested in taking part in the study. Feel free to pass this invitation letter along.

I thank you for your time.

Sincerely,

George Appiah-Sokye, CPA, CA, CICA

DBA Student

Northcentral University

Phone: 1-815-293-6611/1-630-506-2025

Email: G.AppiahSokye9649@email.ncu.edu

Appendix C: Informed Consent

Exploratory Multiple-Case Study of Illinois External Auditors' Perceptions of Fraud Education in Undergraduate Accounting Programs

Northcentral University

Introduction:

My name is George Appiah-Sokye. I am a doctoral student at Northcentral University. I am conducting a research study. The focus of my study is on external auditors' perspectives on the gap between received fraud education in undergraduate accounting programs, competencies needed to detect fraud, and strategies to implement fraud detection education in the undergraduate accounting programs. I am conducting this research as part of my doctoral degree. I invite you to take part in this study.

Activities:

If you take part in this research, you will be asked some questions lasting for over hour. You will be asked to:

a) Provide your views on the detection of corporate fraud.

b) Give your views on the fraud education you received from your undergraduate programs.

c) Provide your views on fraud education you received on-the-job.

d) Give your views on the competencies that accounting students should have for their undergraduate accounting programs.

e) Provide your views on the strategies for including fraud education in undergraduate accounting programs.

f) Give your views on the strategies that can be used to detect fraud in audit practice.

g) Provide your overall assessment on fraud education.

h) Give information on yourself such as: level of education, the state or country you attended university or college, the year you finish your bachelor's degree, professional certifications, gender, age, number of years you have worked in the auditing field, and so on.

i) Confirm your responses because your answers will be repeated back to you to capture your responses so that all answers will be well explained (10 minutes).

Eligibility:

You can take part in the research if you:

1. Are an adults aged between 18 and 65 years;
2. Hold a bachelor's degree in accounting from college or university;
3. Have worked in the auditing field for at least 1 year; and
4. Work or live in the Northern Illinois area.

You cannot take part in this research if you:

1. Are less than 18 years or more than 65 years of age;
2. Do not have a bachelor's degree in accounting;
3. Have less than 1 year of experience in auditing; and
4. Are not working or staying in Northern Illinois.

I hope to use a total of 15 people. This will be made of 5 external auditors who are also certified public accountants (CPAs) and 10 external auditors who are not certified public accountants (CPAs) in this research.

Risks:
There are minimal risks in this study. Some likely risks will include the fact that you may not feel easy when answering the questions. This is because your answers will be on the fraud education you received in college. To reduce the effects of these risks, you can: skip any question or stop taking part at any time.

Benefits:

If you decide to take part, you will likely come to have an understanding of your views on the gap between the fraud education you received in college, as well as, competencies you needed to detect fraud. Then, the best ways of putting fraud detection in the undergraduate accounting programs. The benefits to others include the fact that light will be shed to inform the accounting profession on their education experience. As a result, accounting practitioners, educators, and accounting firms will benefit from this research.

Confidentiality:
The information you give me will be kept secret to the extent allowably by the law will allow. Some steps I will take to keep people from knowing that you took part in the study, are as follows: I will use a fake name. I will keep your name separate from your answers. The fake name will be used to discuss the results of the study. The people who will get to know your information are: myself and my dissertation chair, or my dissertation committee. The Institutional Review Board may also review my research and view your information. I will make sure your information is secured. I will lock your data in a filing cabinet. I will lock the computer file with a password, and I will carry my computer in a locked case. I will keep your data for 7 years. Then, I will delete electronic data and destroy paper data.

Contact Information:

If you have questions for me, you can contact me at: G.AppiahSokye9649@email.ncu.edu or 1-630-506-2025. My dissertation chair's name is Dr. Sharon Kimmel. She works at Northcentral University and she is guiding me on the research. You can contact her at: skimmel@ncu.edu or 1-610-452-2729. If you have questions about your rights in the research, or if a problem has occurred, or if you are injured when taking part in the study, please contact the Institutional Review Board at: irb@ncu.edu or 1-888-327-2877 ext 8014.

Voluntary Participation:

Your taking part in the study is voluntary. If you decide not to take part, or if you stop taking part after you start, there will be no penalty to you. You will not lose any benefit to which you are otherwise entitled.

Audiotaping:
I would like to use a voice recorder to record your answers. You can still take part if you do not wish to be recorded.
Please sign here if I can record you:_____

Signature:

A signature shows that you understand this consent form. You will be given a copy of the form for your records.

_____

Participant Signature Printed Name Date

_____

Researcher Signature Printed Name Date

Appendix D: Basic Participants' Demographic Characteristics

Participants	Age	Experience	Gender	Year of Graduation	Academic Qualification	Professional Certification	Location of College
Samantha	50	25	Female	1990	BSc	CPA	Florida
Noah	23	2	Male	2014	BSc	-	Illinois
Daniel	56	32	Male	1982	BA	CPA	Illinois
Edith	28	2	Male	2013	BSc	CPA	Illinois
Nathan	48	15	Male	1993	BSBA	CPA	Missouri
Emily	55	31	Female	1985	BSc	CPA	Illinois
Kerry	52	2	Male	2004	BSc	CPA	Illinois
Joshua	30	8	Male	2007	BSc	CPA	Indiana
Natalie	35	1	Female	2000	BSc	-	Illinois
Jacob	23	1	Male	2014	BSc	-	Illinois
Liam	29	6.5	Male	2009	BSc	CPA	Illinois
Benjamin	47	2	Male	1996	BSc	CPA	Ghana

Appendix E: Detailed Participants' Demographic Characteristics

Details/Particulars	Frequency	Percentage (%)
Age Range		
18-29	4	33.34
30-39	2	16.67
40-49	2	16.66
50-59	4	33.33
Gender		
Male	9	75
Female	3	25
Years of Graduation		
1980-1989	2	16.66
1990-1999	3	25
2000-2009	4	33.34
2010-2014	3	25
Location of Universities/Colleges		
Florida	1	8.33
Illinois	8	66.67
Ghana	1	8.33
Indiana	1	8.33
Missouri	1	8.34
Years of Professional Practice in Auditing		
1-9	8	66.67
10-19	1	8.33

20-29 30-39	1 2	8.34 16.66
Academic Qualification		
Bachelors Masters	12 6	80 40
Professional Certifications		
CPA Non-CPAs:	9 3	75 25