Graduate and Employer Attitudes on the Skill Set Requirements for Professional Accountants: Should Emotional Intelligence be Developed in University Accounting Programs?

By

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DECLARATION

The author hereby declares that, except where duly acknowledged this thesis is entirely her own work.

This thesis is not one for which a degree has been or will be conferred by this or any other university or institution.

Signed: _____

Peggy Ann Coady

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Abstract

Employer and graduate attitudes on the skill set requirements for professional accountants: Should emotional intelligence be developed in university accounting programs?

This Doctorate of Business Administration (DBA) thesis investigated graduate and employer attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs. Emotional intelligence is the effective awareness, control and management of one's own emotions, and those of other people. Theories of emotional intelligence assert that EI is more important than cognitive ability or technical expertise in predicting managerial success - even in the accounting field. As a result there has been considerable debate about the need for accounting graduates to develop EI skills in their university accounting programs to better prepare them for careers in the accounting profession. While much accounting education research has been noted for its underemployment of theoretical frameworks, this descriptive study used neo-correspondence theory to investigate the attitudes of accounting graduates and accounting employers. Neo-correspondence theory is derived from the correspondence theory of education which emphasizes the connection between higher education student experience and the workplace.

While many studies have identified gaps or lack of correspondence between the university accounting curriculum and the accounting workplace, the findings of this study suggest that the gap may not be as big as expected. While employers and graduates acknowledge the importance of certain EI skills (e.g. self-confidence) for the workplace, they do not have expectations that these skills be developed in university. Other EI skills (e.g. service) were considered by employers and graduates to be important but not well developed in accounting graduates through their university accounting programs. The results also reveal that employers consider some EI skills (e.g. teamwork and collaboration) as being important and well developed in accounting graduates. Somewhat surprisingly, however, were the findings around technical skills. While some technical skills (e.g. financial accounting and audit and assurance) are considered well developed in graduates, others such as bookkeeping, integrative thinking and analytical skills are viewed by employers as important but needing more development in university accounting programs.

The study has academic and practical contributions. The research provides a broader understanding of the skill set (particularly the EI skills) valued by accounting employers and accounting graduates. The study will inform university accounting educators about the ranked importance of various technical and nontechnical skills (primarily EI skills) according to employer and graduate perspectives. Also, the study produces data about the perceived extent of development of these skills in accounting graduates and their expected development in university. This research study is relevant for the academic community by contributing to the use of the theories of emotional intelligence and neo-correspondence. The emotional intelligence field is still relatively new and neo-correspondence theory has never been used in an emotional intelligence context before. Overall, this research has relevance in the accounting education research field, the professional accounting workplace and in the university accounting classroom

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Introduction and DBA Research Overview

Introduction

Section 1 of the Doctorate of Business Administration (DBA) thesis discusses the introduction and research overview for an investigation of employer and graduate attitudes on the skill set requirements for professional accountants and whether university accounting programs develop these skills and in particular the emotional intelligence (EI) skills an accounting graduate needs. This section will outline the research overview, background to the research topic, research questions and hypotheses. The thesis structure and a brief overview of the study's contributions will also be included.

The accounting profession has been transformed as the industry has become more regulated (e.g. Sarbanes-Oxley Act, 2002), competitive, global, cross-functional and technology driven (Bolt-Lee and Foster, 2003; Karr, 2005; Kavanagh and Drennan, 2008; Tatikonda, 2010). Accountants are expected to be more than just number crunchers as their roles have changed to trusted business advisors. This has meant that the duties of a professional accountant have broadened to include a wider range of skills normally associated with managers and competencies such as those encompassed by emotional intelligence (Jones and Abraham, 2008; Kermis and Kermis, 2010; Siegel *et al.*, 2010).

Emotional intelligence (EI) is a concept, rooted in psychology, which has an active connection to business disciplines. Daniel Goleman has become one of the most cited sources regarding EI in a business context (Myers and Tucker, 2005; Rozwell *et al.*, 2001). According to Goleman (1998) emotional intelligence is a person's self-awareness, self-confidence, self-control, commitment and integrity, and a person's ability to communicate, influence, initiate change and accept change. In his work with 200 large global companies, Goleman (1998) concluded that "truly effective leaders are distinguished by a high degree of emotional intelligence"(p.82). More recent research about leadership in the accounting profession notes that the most successful accountants are both technically and emotionally competent (Akers and Porter, 2003; Foley, 2007; Goleman *et al.*, 2002; Kermis and Kermis, 2010; Smigla and Pastoria, 2000; Turner, 2004).

Historically, the accounting field has always attracted bright students (Bay and McKeage, 2006; Esmond-Kiger *et al.*, 2006). However, given the growing recognition of the value of emotional skills, it is argued that being "intelligent" in the traditional sense may not be enough for accounting graduates today (Albrecht and Sack, 2000; Bay and McKeage, 2006). Consequently, many researchers have concluded that accounting educators are focusing too much on technical skills while employers want to hire graduates with good nontechnical skills as well (French and Coppage, 1999; Kavanagh and Drennan, 2008; Usoff and Feldmann, 1998). Several researchers in the accounting education field purport that there is a significant gap between what accounting students are taught and what accounting employers require, particularly with respect to nontechnical skills (AAA, 1986; Albrecht and Sack, 2000; Bui and Porter, 2010; Jackling and DeLange, 2009; Karr, 2005; Kavanagh and Drennan, 2008; Pan and Perera, 2012; Siegel *et al.*, 2010; Tatikonda, 2010). There has not been a study that has specifically focused on an "emotional intelligence gap" between university accounting programs and the professional workplace.

This study explores the importance, extent of development and expected development of EI skills along with other nontechnical skills and technical skills in university accounting programs.

The research overview of the study will be discussed next.

Research Overview

This section will provide an overview of the purpose of the study. This will include a synopsis of the theories and literature review underlying the study and the context in which the study took place.

Emotional Intelligence Theory

The concept of EI was first conceptualized by Salovey and Mayer (1990) as a form of social intelligence "that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions"(p. 189). Daniel Goleman (1995; 1998; 2000) built on the concepts of Salovey and Mayer and broadened their narrow concept of EI to include four constructs: self-awareness,

self-management, social awareness and relationship management. These four main constructs each contain a set of emotional skills (19 in total) and this conceptualization of EI was used in the study.

This study examined the attitudes of accounting graduates and accounting employers about the development of EI in university accounting programs and the importance of EI skills relative to other skills in the accounting workplace. In addition to emotional intelligence theory, the use of a theoretical perspective that considers the alignment of higher education institutions to the workplace was also part of the study and is discussed next.

Neo-Correspondence Theory

The relationship between higher education and the business community has been studied previously. Neo-correspondence theory asserts that higher education institutions should consider employer expectations and align the curriculum accordingly (Gintis, 1971; Saunders and Machell, 2000). This theoretical framework provided the context for the investigation of the skill set requirements for accounting graduates and specifically whether Canadian university accounting programs provide the emotional intelligence skills accounting graduates need for success as professional accountants.

Correspondence theory was first introduced by Gintis (1971) to address issues in higher education. The correspondence theory contends that "the values, norms, structures, processes and dynamics of schooling mirror those found in bureaucratically and hierarchically patterned economic organizations" (LaBrecque, 1978, p.194). At its core was the notion that the social relations between teachers and students will produce socialized work habits and attitudes - referred to as the "hidden curriculum" (Nicolescu and Paun, 2009).

Neo-correspondence theory evolved from correspondence theory and challenged the notion of the "hidden curriculum". Developed by Saunders and Machell (2000) neo-correspondence theory promotes an "explicit curriculum" which fosters correspondence between higher education and the workplace. The main thrust of neo-correspondence theory is that higher education institutions should align to the requirements of employers who want graduates with a certain range of skills. Neo-correspondence theory has only been applied once in an accounting education context (Pan and Perera, 2012) and never exclusively in the area of emotional intelligence.

Literature Overview

As part of the literature and theoretical review for the research study, an analysis of over 50 studies spanning a 35 year period in the research area was conducted. This analysis provided insights into the types of studies completed in the research field and a summary of this work is included in the Appendix.

During the last 35 years there have been many studies (AAA, 1986; Albrecht and Sack, 2000; Carr *et al.*, 2006*;* De Lange *et al*., 2006; Deppe *et al*., 1991; Estes, 1979; French and Coppage, 1999; Hancock *et al.*, 2009; Kavanagh and Drennan, 2008; McPhail, 2004; Pan and Perera, 2012; Richardson, 2005; Siegel and Sorensen, 1994; Usoff and Feldmann, 1998) regarding the desired skills for accounting students. While the professional accountant's role comprises both technical and nontechnical skills, these studies concluded that nontechnical skills (e.g. communication, leadership and team work) are extremely important in the accounting profession and should be integrated more into university accounting programs.

The last decade has been particularly meaningful as since 2002, some limited research on emotional intelligence skills in accounting students has emerged (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al*., 2010; Wells *et al.*, 2009). Some studies have found that while accounting students possess higher GPAs than their non-accounting business school counterparts, they self-report lower levels of EI and rank these skills lower in importance than technical skills (Bay and McKeage, 2006; Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Rozwell *et al.*, 2001; Visser *et al*., 2010). These studies focused exclusively on EI and did not study technical skills together with EI skills and other nontechnical skills.

The foundation of this research area is that there appears to be a gap between what accounting students are taught in university and what accounting employers' value. Over the years accounting education researchers have identified several "gaps" in accounting education. Many of these gaps are similar in nature and are summarized in Table 1 below.

Table 1: Studies on gaps in accounting education

Gap	Key Findings	Author(s)	Country
Preparation Gap	Preparation gap between corporate needs and accounting students' skills and knowledge	Siegel and Sorensen (1994)	USA
Preparation Gap	A review of the curriculum requirements for entry-level management accountants from the perspective of employers was found to have gaps.	Richardson (2005)	Australia
Skills Gap	Accounting students lack communication and problem solving skills expected by employers.	Milner and Hill (2008)	UK
Synchronization Gap	Accounting curricula does not match market demands as most undergraduate courses have remained unchanged for 25 years.	Siegel *et al.* (2010)	USA
Expectation-Performance Gap	There is a perceived gap between the expectations of accounting employers and their perception of the competencies accounting students should have.	Bui and Porter (2010)	New Zealand

A gap in accounting education research with respect to the development of EI skills from the perspective of accounting employers and accounting graduates has never been studied. The current study investigated a potential emotional intelligence gap and offers recommendations for practice.

Study Context

In Canada, the Chartered Accounting (CA) program is administered regionally (Western Canada, Ontario, Quebec and Atlantic Canada[1]) and nationally by the Canadian Institute of Chartered Accountants (CICA)[2]. The study was conducted in Atlantic Canada (the four most eastern provinces in Canada: Newfoundland and Labrador, Nova Scotia, New Brunswick and Prince Edward Island) and Bermuda. Atlantic Canada has ten universities and the graduates of these schools who pursue the CA program are all students of the Atlantic School of Chartered Accountancy (ASCA - the regional body that delivers the professional CA program in Atlantic Canada and Bermuda). Also, to complete the CA program in Canada a student must be employed by an approved CA training office. These offices are normally CA firms, government departments (e.g. Office of the Auditor General) and some approved companies in industry. The sample for the study consisted of ASCA students (accounting graduates) and employers from approved training offices in Atlantic Canada and Bermuda. In August 2013 there were 438 ASCA students and 110 approved CA employers in Atlantic Canada and Bermuda.

Study Design

The current research is a descriptive study - "description of phenomena or characteristics associated with a subject population [the who, what, when, where and how of a topic]" (Cooper and Schindler, 2011, p.149). Descriptive research is used to study achievement, attitudes, behaviours, preferences, concerns, interests or other characteristics of a group of subjects (Gay *et al.*, 2006; McMillan and Schumacher, 2001).

[1] CA students in Bermuda complete the CA professional education program in Atlantic Canada.

[2] The CICA develops and evaluates the uniform final examination that all CA students must complete and as such regional CA professional bodies and universities follow similar curriculum that has been approved by the CICA.

While the study is descriptive in nature, it does have exploratory elements. Exploratory studies are an important way to discover "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, p.59). This type of research can be helpful when the understanding of the problem needs further clarification and definition. The study is the first to use neo-correspondence theory to examine emotional intelligence in an accounting education context and is the first to investigate the attitudes of Canadian accounting employers and accounting graduates about the complete skill set, including EI skills, for professional accountants.

Both sets of respondents were asked three main questions about 31 different skill areas. The skill areas in the survey were divided between nontechnical and technical skills and the 31 skills are listed below in Table 2. To facilitate the effective presentation of skills groupings, technical skills have normal formatting, the nontechnical skills are shaded and the EI skills are shaded and underlined. This convention will be used in all tables throughout the DBA thesis.

Table 2: Technical, nontechnical and emotional intelligence skills from surveys

1. Financial Accounting (interpretation and application of relevant accounting standards)
2. Bookkeeping (bank reconciliation, journal entry preparation, and monthly accounting)
3. Management Accounting (budgeting, costing and performance measurement)
4. Taxation (personal and corporate tax preparation)
5. Audit and Assurance (financial statement auditing and other assurance services)
6. Finance (financial analysis and planning)
7. Strategy and Governance (role of corporate governance within an organization
8. Information Technology (proficiency in the latest information technology sources)
9. Analytical Skills (articulating and solving both complex and uncomplicated problems)
10. Integrative Thinking (critical thinking of many factors when solving a problem)
11. Oral Communication (effective listening, understanding and speaking)
12. Written Communication (writing with clarity and precision)
13. Emotional Self-Awareness (recognizing one's emotions and their effects)
14. Accurate Self-Assessment (knowing one's strengths and limits)
15. Self-Confidence (sureness about one's self-worth and capabilities)
16. Empathy (sensing others' feelings and perspectives)
17. Organizational Awareness (the ability to read social and political networks in an organization)
18. Service (anticipating, recognizing and meeting client needs)
19. Self-Control (keeping disruptive emotions and impulses under control)
20. Transparency (displaying honesty, integrity and trustworthiness)
21. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)
22. Achievement (striving to improve or meet a standard of excellence)
23. Initiative (readiness to act and seize opportunities)
24. Optimism (persistence in pursuing goals despite obstacles and set-backs)
25. Inspiration (inspiring and guiding people)
26. Influence (using effective tactics of persuasion)
27. Developing Others (encouraging others' abilities through feedback and guidance)
28. Change Catalyst (initiating or managing change)
29. Conflict Management (negotiating and resolving disagreements)
30. Teamwork and Collaboration (cooperatively working with others towards a shared goal)
31. Building Bonds (cultivating and maintaining a web of relationships)

The inventory of skills compiled during the research design drew on a number of sources. Technical skills were identified from two sources: academic studies and research conducted by professional accounting bodies. The technical skills in the questionnaires have been identified and tested in some of the studies reviewed for this paper (Albrecht and Sack, 2000; Pan and Perera, 2012; Richardson, 2005). These technical skills are also considered important in the accounting profession. These ten technical skills have been identified in the competency frameworks of the major professional accounting bodies in Canada, Australia and the United States (AICPA, 2012; CICA, 2012; ICAA and CPA, 2009).

There are 21 nontechnical skills listed in the questionnaires and 19 of these are the emotional intelligence skills identified by Goleman *et al.* (2002). The other two skills included in the nontechnical skills area of the questionnaires are oral and written communication skills. The goal was to compile an inventory of skills for professional accountants and Goleman's EI framework does not contain communication skills. Also prior to 2002, the research around nontechnical skills in accounting education focused on communication (Aiken *et al*., 1994; Andrews and Koester, 1979; Andrews and Sigband, 1984; Estes, 1979; Gingras, 1987; Hassall *et al.,* 2005; Montano *et al*., 2001; Novin *et al.*, 1990; Rebele, 1985; Zaid and Abraham, 1994).Hence, oral communication and written communication were included in the inventory of skills for the study.

Both questionnaires contained questions about attribute variables and they varied slightly between the two groups of respondents. It was anticipated that the responses about the various skills areas would vary according to these attributes. Thus, there was a potential opportunity to offer new insights with respect to the population characteristics in keeping with descriptive research design.

Surveys of accounting employers and graduates took place in August - September 2013 and Table 3 summarizes the sample sizes, responses and response rates.

Table 3: Survey responses

	Sample Size	Total Responses	Invalid Responses	Useable Responses	Response Rate
Graduates	438	204	5	199	45.4%
Employers	110	68	1	67	60.9%[3]

The next sub-section will discuss the background to the research topic.

Background to the Research Topic: Research Rationale

There were academic, professional and personal reasons that provided the motivation for the study.

Academic Rationale

As mentioned earlier over 50 studies covering a 35 year period in the research area were analyzed as part of the literature review. This analysis revealed that most studies in the field do not have a theoretical foundation. Also, accounting graduates and employers are not studied comparatively or as extensively as accounting students.

Another aspect of this research topic is that this field is relatively new, as studies of emotional intelligence in university accounting education have only emerged in the last decade. Likewise, neo-correspondence theory has only been applied once in an accounting education context (Pan and Perera, 2012) and never using Goleman's emotional intelligence framework. This research topic, from an academic perspective, presented several opportunities to explore aspects of the issues not previously studied. For example, there has not been a specific focus on a potential emotional intelligence gap in accounting education. Thus, there is opportunity in this research area for further contribution.

[3] The employer response rate assumes that one respondent from an approved training office participated in the survey. As the survey was anonymous it is uncertain how many representatives from approved training offices actually participated.

There is insufficient research on the role of emotional intelligence in university accounting programs in Canada as most of the research has taken place in Australia and the United States. Much of the work in Canada has exclusively focused on measuring the EI of accounting students. There are no Canadian studies that have examined the attitudes of accounting employers and graduates regarding the skills, specifically that of emotional intelligence, valued in accounting graduates as a professional accountant. This research gap provided a strong rationale for the study.

Professional Rationale

There are many stakeholders in accounting education including students, educational providers and employers. As noted earlier in the section, there have been many calls for reform of the accounting curriculum in universities as there are gaps between what accounting students are taught and what practicing accountants do (Albrecht and Sack, 2000; Bui and Porter, 2010; Kavanagh *et al.* 2009; Howieson *et al*., 2010; Siegel *et al*. 2010). Obviously these concerns have important implications for university accounting educators. Even in the best of economic times university resources are scarce and thus should be utilized in the most relevant and efficient manner.

If the relevance of the accounting curriculum at universities is in question, will the best and brightest students opt for other degree programs? Accounting faculties would then have less qualified students and reduced resources (Albrecht and Sack, 2000; Karr 2005). Some claim that if accounting education is not viewed as relevant for today's business world professional accountants will lose their competitive edge and vitality in the marketplace (Brooks, 2007). Thus, further research into this aspect of accounting education benefits stakeholders such as students, educational providers and accounting employers.

The other stakeholder relevant to the research topic, while not as obvious as the others, is the public or society at large. Professional accountants are trained to "protect the public's interest" and this duty is often viewed as being the core of the profession`s mandate (Brooks, 2007; Lee, 1995). Many argue that since the Enron, World Com and Arthur Andersen scandals there has been a "rededication" to the public interest with this being the primary loyalty of the professional accountant (Brooks, 2007; Karr, 2005; Siegel *et al*., 2010). Some contend that professional accountants must develop judgment, values and character traits (i.e. like those that comprise emotional intelligence) that can meet the public's expectations (Brooks, 2007; Jones and Abraham, 2008). The issue is whether these skills are currently being developed in accounting educational programs. This is an important question given that the professional services provided by accountants are beneficial to society.

The research topic is important to accounting students, accounting educators and employers. Benefits accrue if the university accounting curriculum has academic integrity and is perceived as preparing students well for a career in accounting. Much time and resources are put into designing and delivering undergraduate accounting programs and it is crucial that the content in these programs is relevant.

Personal Rationale

The research topic is of interest to the researcher on many levels. The researcher completed an undergraduate accounting degree at a university in Atlantic Canada and articled with an approved training office to become a CA. Thus, the researcher went through the same academic and professional training as the study's population. Once promoted to a manager in the public accounting firm, the researcher then recruited university students for the firm and thus was exposed to a younger generation of entry level accounting graduates. Even then it was evident that accounting firms seem to have changed their perceptions of desirable student attributes to encompass more than just good grades in university.

The researcher is now an accounting academic at a university in Atlantic Canada and teaches the accounting students that are recruited by accounting employers. Hence, there is a deep personal interest in the study's findings and recommendations.

The next sub-section will examine the research questions and hypotheses for the study.

Research Questions

While the fundamental focus of the study remained unchanged, the research questions and hypotheses for the study evolved slightly during the DBA program. These changes will be discussed at the beginning of Section 2 of the thesis as a preface to the DBA cumulative paper series.

The title and research questions for the study are:

Graduate and employer attitudes on the skill set requirements for professional accountants: Should emotional intelligence be developed in university accounting programs?

1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace?

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

The following specific hypotheses have been developed for testing based on the literature review:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

The first two hypotheses focus specifically on emotional intelligence skills and are based on the literature review completed for the study. The third hypothesis is based on neo-correspondence theory and predicts that both accounting graduates and employers expect correspondence between the skills covered in university accounting programs and those required in the accounting workplace

The research questions and hypotheses were mapped to the main questions in the study's surveys and the corresponding key studies in the field as presented below in Table 4.

It is evident from Table 4 that while importance of skills (research questions 1, 2 and hypothesis 1) has received considerable attention in the literature, the same cannot be said for the extent of development of skills (research questions 3, 4 and hypothesis 2) and where skills should be developed (research questions 5, 6 and hypothesis 3). This offers an opportunity for contribution.

Table 4: Summary of research questions, survey questions, hypotheses and key studies

Research Questions	Survey Questions	Hypotheses	Key Studies
1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace? 2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?	Section One (Part A): The importance or not of each skills area in the accounting workplace.	H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.	Albrecht and Sack (2000), Bui and Porter (2010), De Lange *et al.* (2006), Jones and Abraham (2008), Jackling and De Lange, (2009), Kavanagh and Drennan (2008), Richardson (2005), Stivers and Onifade (2011), Wells *et al.* (2009).
3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs? 4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?	Section One (Part B): The extent to which each skills area is developed in accounting graduates.	H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.	Hancock *et al.* (2009), Jacking and De Lange, (2009), Richardson, 2005.
5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills? 6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?	Section One (Part A): The importance or not of each skills area in the accounting workplace. Section One (Part C): Where accounting graduates should primarily develop each skills area.	H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.	Kavanagh and Drennan, (2008), Pan and Perera, (2012).

The next sub-section provides of an overview of the study's contributions.

Contributions

Section 3 of the DBA thesis contains a detailed account of the contributions of the study both to theory and practice. In this sub-section a general overview of the contribution and relevance of the study for theory and practice is provided.

While there has been a considerable amount of research conducted in the subject area of the research study, the field is still far from mature and it is dominated with contributions from Australia and the United States. Consequently, the literature review did reveal that there are some opportunities for both an academic and practical contribution, particularly in a Canadian context.

The current study provides a broader understanding of the skill set (particularly the emotional intelligence skills) valued by accounting employers and accounting graduates. The study will inform university accounting educators about the ranked importance of various technical and nontechnical skills according to employer and graduate perspectives. Also, the study produces data about the perceived extent of development of these skills in accounting graduates and their expected development in university. This information will be useful to accounting students, accounting academics and accounting employers. Likewise, given the intricate relationship between university accounting programs and the professional accounting bodies the contribution to practice is also extended to the wider accounting profession. Finally, on a broader level, this research might be relevant to education in other professions such as law and medicine.

In addition to a practical role, this research study will be relevant for the academic community through a contribution to the theories of emotional intelligence and neo-correspondence. The emotional intelligence field is still relatively new and neo-correspondence theory has never been used in an emotional intelligence context before. Overall, this research has relevance in the accounting education research field, the professional accounting workplace and in the university accounting classroom

Thesis Outline

The DBA thesis contains four main sections. Section, 1 presented the research overview, background to the research topic and the research questions. A brief summary of the contributions of the study was also provided. Section 2 contains the DBA cumulative paper series and as noted earlier this section will begin with a preface to explain any changes to the study from paper to paper. These four papers are as follows:

DBA Paper 1 (Conceptual Paper). A conceptual framework for investigating whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs.

DBA Paper 2 (Philosophy & Research Methodology). A research methodology for investigating graduate and employer attitudes on the skill set requirements for professional accountants: should emotional intelligence be covered in university accounting programs?

DBA Paper 3 (Preliminary Findings). Should emotional intelligence be developed in university accounting programs? Survey operationalisation and preliminary data from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants.

DBA Paper 4 (Results). Should emotional intelligence be developed in university accounting programs? Results from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants.

Section 3 of the DBA thesis includes the conclusion and recommendations. This section also provides the limitations, contributions to practice and theory and suggestions for future research. Finally Section 4 contains extracts from the researcher's reflective log.

Concluding remarks

The accounting profession has been transformed due to many external factors. As a result there has been "a positive paradigm shift within the profession that increases the importance given to non-technical skills and to put these skills on a level with technical skills" (Foley, 2007, p. 52). More specifically, technical expertise is now viewed as baseline in the accounting

profession while emotional intelligence is seen as the secret to career success (Foley, 2007; Goleman, 2000; Smigla and Pastoria, 2000). This is concerning given that universities are being criticized for producing accounting graduates who are too theoretical and not "work ready" (Howieson *et al.*, 2010; Kavanagh *et al.*, 2009; Siegel *et al.*, 2010). For these reasons the research topic is of importance to accounting graduates, employers, universities and professional accounting bodies.

This descriptive research study used the theoretical perspectives of neo-correspondence theory and emotional intelligence theory to investigate the attitudes of accounting graduates and accounting employers about the skill set requirements for professional accountants and whether university accounting programs develop these skills and in particular the emotional intelligence (EI) skills an accounting graduate needs. This research has the opportunity for contribution to theory and practice with potential significant implications for the design of university accounting programs.

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SECTION 2: Cumulative Paper Series

Preface to Cumulative Paper Series

Section 2 of the DBA thesis contains the cumulative paper series. These papers reflect both an unfolding research and examination process. As each paper was presented to the examination panel a determination was made of "recommended" status requiring no resubmission. Feedback was provided by the examination panel, and peers, by way of suggestions to consider as the process evolved. This preface thus presents some of this feedback to assist understanding the positioning and development of each of the four research papers.

Feedback - Paper 1 (Conceptual paper)

The proposed title for the study during the conceptualization of the research topic and presented in DBA Paper 1 (Conceptual Paper) was:

A study of employer and graduate attitudes about whether university accounting programs provide the emotional intelligence (EI) skills accounting graduates need.

The hypotheses presented were:

H1: Accounting employers and graduates expect correspondence between the skills covered in university accounting programs and those required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the coverage of emotional intelligence skills in university accounting programs.

H3 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the professional accounting workplace.

An extract from the examiner's feedback for Paper 1 is included below:

> *You presented an accomplished paper and defended your ideas well. You provided a critical and extensive review of the literature on accounting education and EI. Conceptualization is premised on the existence of student and employer perceived gaps in attitudes towards EI on correspondence, coverage and importance. As such, there is clearly great potential for contribution in this area, and emphasis can be placed more on identifying the (likely) gap between graduate and student perceptions, rather than attempting to address how such a gap might be closed (Source: Examiner Feedback, December 14, 2012).*

This feedback was addressed in Paper 2 by developing research questions that focused on identifying the gap between employer and graduate attitudes rather than attempting to address how such a gap might be closed. The research questions developed for the study were:

1. What technical and nontechnical skills are viewed as important by accounting graduates and employers in the accounting workplace?

2. To what extent have these technical and nontechnical skills been developed in university accounting graduates?

3. Where do accounting graduates and employers believe that accounting graduates should develop these technical and nontechnical skills?

The hypotheses for the study were also reworded given the inclusion of research questions to the following:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

> The ordering of this hypothesis was changed as it had been H3 previously. This change was made to reflect the ordering of the questions in the surveys. Also, the word "professional accounting workplace" was replaced with "accounting workplace" for consistency.

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

> The wording of H2 was changed to incorporate the concept of development of the skills in graduates instead of the development of skills in university which is addressed in the new H3.This revision was necessary because it focuses on the gap between employers and graduate attitudes - a point that the examiners had made.

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

> This hypothesis was initially H1 and it was revised to reflect the focus on EI in the study. Also, the hypothesis was moved from first to third to reflect the required integration of two dimensions of the study.

Finally, the title for the study also evolved, on reflection, that the examination of EI skills could not be considered in isolation of other key skills associated with the accountant's professional role. The new title is:

Graduate and employer attitudes on the skill set requirements for professional accountants: Should emotional intelligence be covered in university accounting programs?

As part of the feedback for Paper 1, the examiners also commented that exploratory interviews might be worthwhile considering once the results of the descriptive study are obtained to examine issues that arise. To address this in Paper 2 the following was noted in the Survey Administration section:

> While the primary data collection method for the current study is questionnaires, it is acknowledged that further data collection might be needed. Given the influence of professional accounting bodies, like ASCA, and university accounting academics on the content of university accounting courses, it is recognized that this research study has to be cognizant of these intricate relationships. While ASCA and accounting academics are not noted in the current conceptual framework for the study, the involvement of these stakeholders in the research study has been considered. Depending on the results of the surveys of the accounting graduates and accounting employers, consultation with ASCA and accounting academics will be arranged and incorporated into the research study. If this consultation is required it will be in the form of semi-structured interviews which are compatible with the philosophical foundation of the research study (Source: DBA Paper 2, p.9).

It is noted that that the use of interviews was monitored as the study progressed. Interviews were considered more appropriate for obtaining information about closing a gap and resolving the 'how' and 'why' questions. As the survey focused more on the 'what' skills, interviews were considered less suitable as they would not add to confirming attitudes towards skills which was the focus of the study. Subsequent scale and scope of data collection indicated adequacy in the context of the predetermined research questions and hypotheses. Finally, the consideration of follow-on interviews did not re-emerge in subsequent examiner feedback. It has however been an important consideration for further research which is addressed in Section 3 of the thesis.

Feedback - Paper 2 (Research Methodology)

An extract of the feedback obtained after the presentation of Paper 2 is:

> *All examiners believe this is an excellent paper, of publishable quality, with strong rigor and tight presentation. The examiners posited that you could argue this is exploratory rather than descriptive, in that it explores what people think. Following a discussion on the survey instrument itself, the examiners suggested that there is potential to offer strength from question separation and hypotheses that would reflect more of the complexity of design (Source: Examiner Feedback, May 13, 2013).*

The comment about the exploratory aspect of the survey was taken into consideration after the research methodology paper presentation and before data collection. Consequently, the following paragraph was included in Paper 3:

> Given that this study will be the first to use the neo-correspondence theory to examine emotional intelligence in an accounting education context, the study does have exploratory elements. Exploratory studies are an important way to discover "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, p.59). This type of research can be helpful when the understanding of the problem needs further clarification and definition. From this exploration further information on important variables might emerge and other hypotheses developed (Cooper and Schindler, 2011). (Source: DBA Paper 3, p.3).

The examiner feedback also suggested that the research questions be refined to differentiate employers and graduate attitudes separately as follows:

1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace?

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

The examiners also had some minor suggestions about the draft surveys that were included as part of Paper 2. These suggestions were taken into consideration during the finalization of both surveys.

Feedback - Paper 3 (Preliminary Findings)

An extract from the Paper 3 feedback is as follows:

> *This was an excellent paper, presentation and discussion displaying a high level of rigor. It is clear how the research has been designed and the rigour of the research process is evident throughout. How will you integrate the employer and graduate perceptions? Be explicit on the links between the questions asked and the focus on E.I. It may help to 'visualise' the data to help render the complexity. What do you plan to do with the results of the survey? Consider the contribution to practice – this will need to reflect the perspectives of the graduates and employees captured in the survey and in the context of the researcher's role in an academic 'practice' environment (Source: Examiner Feedback, October 17, 2013).*

The main comment expressed by the examiners on Paper 3 was the issue of integration of employer and graduate attitudes. As part of the data analysis, presented in Paper 4, a number of strategic maps (Montano *et al*., 2001) were constructed which enabled the integration of two dimensions of the study. Strategic maps have been previously used in accounting education research. These maps graphed the mean scores collected for all skill areas from the questionnaires. Two intersecting lines, at the overall mean score for all skills, divided the map into 4 areas. These four areas graphically showed higher priority and lower priority areas in terms of importance and development for the 31 skill areas.

In Paper 4 the attributes of importance of the skill area and the development of that skill area in graduates was mapped. Also, another series of strategic maps plotted the level of importance assigned by the respondents and the extent to which the skill should be developed in university accounting programs. This analysis provided insights into directing attention to those skills that have a combination of above average importance and below average development.

The other comments made by the examiners were taken into consideration during the preparation for Paper 4. This included specifically linking the research questions and the focus on EI when presenting the results. Also, the contribution to practice does reflect the perspectives of both employers and graduates.

Feedback - Paper 4 (Results)

The examiner feedback from Paper 4 indicated that a fully integrated analysis of the three variables in the study could offer meaningful insights. The examiner feedback was:

> *This was an excellent paper, with a very high standard of presentation and discussion. You have offered a thorough examination of attitudes of employers and graduates of technical and non-technical skills and provide full exploration of the hypotheses, even if the results may not be what you hoped for. The variation in EI skills across the 19 dimensions, two other non-technical skills, and technical skills across 10 dimensions, shows which skills merit more/less attention. You've offered very strong analysis here. You might consider overlaying the graphs, although it may be too complicated. Comparison/analysis of expected development versus the extent developed vis-á-vis importance could provide some useful discussion going forward (Source: Examiner Feedback, March 27, 2014).*

This analysis of importance of the skill, development of the skill in graduates and expected development of the skill in universities was undertaken as part of the data analysis and is presented in Section 3 (Conclusion and Recommendations) of the thesis. This analysis combined the analytical tools used by Hassall *et al.* (2005) and Montano *et al.* (2001).

Priority indices were calculated in order to identify the skills that require major development. These indices relate the individual skill mean score to the overall average mean skill score and then weighting this by the individual skill importance mean score. This calculation has previously been applied to accounting skill level adequacy (Hassall *et al*., 2005). In this study it was utilized to analyze expected skill development in university (Where Index) and the extent of skill development in graduates (Extent Index)

The strategic maps, discussed earlier, and utilized in DBA Paper 4 to present the study's results, were used to bring together the Where and Extent Indices for employers and graduates in Section 3 of the thesis.

Concluding Remarks

The remainder of Section 2 contains the cumulative paper series. These four papers have the following titles:

Paper 1. A conceptual framework for investigating whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs.

Paper 2. A research methodology for investigating graduate and employer attitudes on the skill set requirements for professional accountants: should emotional intelligence be covered in university accounting programs?

Paper 3. Should emotional intelligence be developed in university accounting programs? Survey operationalisation and preliminary data from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants.

Paper 4. Should emotional intelligence be developed in university accounting programs? Results from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants.

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PAPER 1:
Conceptual Paper

A conceptual framework for investigating whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs.

Research-in-Progress

Abstract

This paper presents a conceptual framework for investigating whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs. Emotional intelligence is the effective awareness, control and management of one's own emotions, and those of other people. Theories of emotional intelligence assert that EI is more important than cognitive ability or technical expertise in predicting managerial success - even in the accounting field. As a result there has been considerable debate about the need for accounting graduates to develop EI skills in their university accounting programs so they are better prepared for a career in the accounting profession. While this area has been widely researched, there has been an underutilization of theory in the existing studies. This descriptive research study will use the theoretical framework of the neo-correspondence theory to investigate the attitudes of accounting graduates and accounting employers about the importance of EI skills for a career in professional accounting and whether these skills are sufficiently covered in university accounting programs. The neo-correspondence theory is derived from the correspondence theory of education which emphasizes the connection between higher education student experience and the workplace. This research has the opportunity for contribution to theory and practice with potential significant implications for the design of university accounting programs.

Keywords: accounting education, emotional intelligence, neo-correspondence theory, non-technical skills

Introduction

Accounting research has historically focused on technical subject areas with less emphasis on behavioural questions. However, in recent times, there has been more consideration given to the “emotional skills" and their value for professional accountants (Akers and Porter, 2003; Jones and Abraham, 2008; Kermis and Kermis, 2010; McPhail, 2004).

Emotional intelligence (EI) is a concept, rooted in psychology, which has an active connection to business disciplines. Daniel Goleman has become one of the most cited sources regarding EI (Myers and Tucker, 2005; Rozwell *et al.*, 2001). According to Goleman (1998) emotional intelligence is a person’s self-awareness, self-confidence, self-control, commitment and integrity, and a person’s ability to communicate, influence, initiate change and accept change. The Goleman EI model focuses on how cognitive and personality factors determine workplace success. In his work with 200 large global companies, Goleman (1998) concluded that "truly effective leaders are distinguished by a high degree of emotional intelligence"(p.82). More recent research about leadership in the accounting profession concludes that the most successful accountants are both technically and emotionally competent (Akers and Porter, 2003; Foley, 2007; Goleman *et al.*, 2002; Kermis and Kermis, 2010; Smigla and Pastoria, 2000; Turner, 2004).

The accounting profession has been transformed in this century as the industry has become more regulated (e.g. Sarbanes-Oxley Act, 2002), competitive, global, cross-functional and technology driven (Bolt-Lee and Foster, 2003; Karr, 2005; Kavanagh and Drennan, 2008; Tatikonda, 2010). Accountants are expected to be more than just number crunchers as their roles have changed to trusted business advisors. This has meant that the duties of a professional accountant have broadened to include a wider range of skills normally associated with managers and competencies such as those encompassed by emotional intelligence (Jones and Abraham, 2008; Kermis and Kermis, 2010; Siegel *et al.*, 2010a).

Even when the traditional role of a professional accountant is examined, there are still concerns about the skills required today. Professional accountants are trained to "protect the public's interest" and this duty is often viewed as being the core of the profession`s mandate (Brooks, 2007). Many argue that since the Enron, World Com and Arthur Andersen scandals there has been a rededication to the public interest with this being the primary duty of the professional accountant (Brooks, 2007; Karr, 2005; Siegel *et al.*, 2010a). Some contend that professional accountants must develop character traits - like those that comprise emotional intelligence–so they can meet the public's expectations (Brooks, 2007; Jones and Abraham, 2008). The critical issue is whether these skills are currently being developed in traditional university accounting programs.

Historically, the accounting field has always attracted bright students (Bay and McKeage, 2006; Esmond-Kiger *et al.*, 2006). However, given the growing recognition of the value of emotional skills, it is argued that being “intelligent” in the traditional sense may not be enough for accounting graduates today (Albrecht and Sack, 2000; Bay and McKeage, 2006). Several studies have found that while accounting students possess higher GPAs than their non-accounting business school counterparts, they self report lower levels of EI and rank these skills lower in importance than technical skills (Bay and McKeage, 2006; Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Visser *et al*., 2010).

Consequently, many researchers have concluded that accounting educators are focusing too much on technical skills while employers want to hire graduates with good non-technical skills as well (French and Coppage, 1999; Kavanagh and Drennan, 2008; Usoff and Feldmann, 1998). Several researchers in the accounting education field purport that there is a significant gap between what accounting students are taught and what practicing accountants do (AAA, 1986; Albrecht and Sack, 2000; Bui and Porter, 2010; Jackling and DeLange, 2009; Karr, 2005; Kavanagh and Drennan, 2008; Pan and Perera, 2012; Siegel *et al.*, 2010a; Tatikonda, 2010).

The relationship between higher education and the business community has been studied previously. The neo-correspondence theory asserts that higher education institutions should consider employer expectations and align the curriculum accordingly (Gintis, 1971; Saunders and Machell, 2000). This theoretical framework will provide the context for the investigation of whether Canadian university accounting programs provide the emotional intelligence skills accounting graduates need for success as professional accountants. The neo-correspondence theory has only been applied once in an accounting education context (Pan and Perera, 2012)

and never in the area of emotional intelligence. The emotional intelligence field, in general, is still relatively young and thus this research study can make a contribution to both theories.

This paper will first provide a discussion of the theoretical foundations for the research study which will include an overview of emotional intelligence theory and the neo-correspondence theory. A literature review will be provided next, followed by presentation of a conceptual framework which proposes several hypotheses for the study. Finally, the last section of the paper provides some concluding remarks on the proposed research study.

Theoretical Foundations

As part of the literature and theoretical review for the research study, a rigorous analysis of the 50 most significant studies over a 30 year period in the research area was conducted. This analysis provided insights into the types of studies completed in the research field. One of the significant observations about the research base is that 76% of the studies reviewed did not have a theoretical foundation. Of the studies that did 14% were based on emotional intelligence theory while the other 10% were one-offs (e.g. Case Study, Grounded Theory, SERVQUAL, and Neo-Correspondence Theory). These findings are consistent with the results of reviews of higher education research where there have been criticisms of the extent of theory use (Tight, 2004) and the type of theory use (Haggis, 2009).

This study will draw on two main theories that will be discussed in the next two sections of the paper.

Emotional Intelligence Theory

The concept of EI was first conceptualized by Salovey and Mayer (1990) as a form of social intelligence "that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions"(p. 189). Daniel Goleman (1995; 1998; 2000) built on the concepts of Salovey and Mayer and broadened their narrow concept of EI to include four constructs: self-awareness, self management, social awareness and relationship management. These four main constructs each contain a set of emotional competencies and this conceptualization of EI (as summarized in Table 1) will be used in this study.

Table 1: The Emotional Intelligence Framework (Source: Goleman *et al.*, 2002, p.253-256)

Personal Competence	Social Competence
Self Awareness emotional self-awareness accurate self- assessment self confidence	Social Awareness empathy organizational awareness service
Self-Management self-control transparency adaptability achievement initiative optimism	Relationship Management inspiration influence developing others change catalyst conflict management teamwork and collaboration building bonds

In this model the assignment of competencies to a construct is not random and the relationship is such that the groupings are synergistic (Goleman *et al.*, 2002). The major assumption of Goleman's EI theory is that these emotional competencies are not innate but are learned capabilities that must be developed to achieve exceptional performance (Goleman, 1995; 1998). Goleman also contends that individuals are born with general emotional intelligence that determines their potential for learning specific emotional competencies (Goleman *et al.*, 2002).

While the EI construct has been validated by many researchers (Antonakis *et al.*, 2009; Ashkanasy and Daus, 2005; Carmeli, 2003; Davidson *et al.*, 2000; Gardner and Stough, 2002; Roberts *et al.*, 2002; Rozwell *et al.*, 2001; Zeider *et al.*, 2009), the theory of EI will not be directly tested in the proposed research project (i.e. the EI of key stakeholders will not be measured). Many studies of emotional intelligence in accounting education have already shown that the EI of recent accounting graduates is comparatively low (Bay and McKeage, 2006; Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Visser *et al.*, 2010). This study will examine the attitudes of accounting graduates and accounting employers about the coverage of EI in university accounting programs and the importance of EI skills in the accounting workplace. Thus, instead of students being the primary focus, the study concentrates on graduates and employers and the accounting workplace. Hence, the use of a theoretical framework that examines the alignment of higher education institutions to the workplace is required.

Neo-Correspondence Theory

The correspondence theory was first introduced by Herbert Gintis (1971) to address issues in higher education. The correspondence theory contends that "the values, norms, structures, processes and dynamics of schooling mirror those found in bureaucratically and hierarchically patterned economic organizations" (LaBrecque, 1978, p.194). The correspondence theory was developed further by Gintis (1972) and several other researchers (Bowles and Gintis, 1976; Carnoy and Levin, 1976; Giroux, 1980; Grubb and Lazerson, 1975). As Bowles and Gintis note "the social relationships of education - the relationships between administration and teachers, teachers and students, students and their work - replicate the hierarchical division of labour" (1976, p. 131). At its core was the notion that the social relations between teachers and students will produce socialized work habits and attitudes - referred to as the "hidden curriculum" (Nicolescu and Paun, 2009).

The neo-correspondence theory evolved from the correspondence theory and challenged the notion of the "hidden curriculum". Developed by Saunders and Machell (2000) the neo-correspondence theory promotes an "explicit or link curriculum" which fosters correspondence between higher education and the workplace. The main focus of the neo-correspondence theory is how higher education institutions should react to the requirements of employers who want graduates with a certain range of skills. As noted by Saunders and Machell (2000),"employers tend to place a high value on social skills, attitudes, motivation, broad knowledge and flexibility in recruiting graduates ... in other words according to this theory, higher education should provide experiences that rehearse the operability of social and organizational context in which traditional intellectual capacities were intended to display"(p.20)

Nicolescu and Paun (2009) used the neo-correspondence theory to examine graduate expectations and employer requirements in Romania. They investigated the opinions and perceptions of employers of graduates of the Academy of Economic Studies and hypothesized that "both students and employers require from higher education the development of similar skills and abilities, such as technical skills, communication skills, problem-solving skills, etc."(Nicolescu and Paun, 2009, p.20). The researchers concluded that both graduates and employers "value more the acquisition of general and social skills, attitudes, and broader abilities than narrowly specific knowledge"(p.29).

As previously noted, the neo-correspondence theory has been used in accounting education research only once. Pan and Perera (2012) examined the market relevance of university accounting programs in Australia to determine whether employers believe that accounting graduates have the required market knowledge, skills and competencies. Their conclusion was that existing university accounting programs may not always meet market expectations and further work should be done on how the discrepancies between university accounting programs and market expected knowledge and skills can be reconciled. These findings create an opportunity for the proposed research project to make a contribution to practice by addressing a potential lack of correspondence between university accounting programs and the accounting workplace.

These findings and the premise of emotional intelligence theory were taken into consideration in the conceptualization of the research topic. The other significant foundation of the study's conceptual framework, the literature review, will now be presented in the next section of the paper.

Overview of Literature Review

In this four - part section a detailed review of the literature in the research field will be discussed. This includes reviews of accounting education reform, non-technical skills in accounting education, emotional intelligence in accounting education and gaps in accounting education.

Review of Accounting Education Reform

The criticisms of accounting education have been debated for over 50 years with many suggestions on how the curriculum should change (Bolt-Lee and Foster, 2003; Gordon and Howell, 1959). One of the earliest large scale studies in accounting education was commissioned by the American Accounting Association (AAA) in 1986. The AAA created "The Committee on the Future Structure, Content, and Scope of Accounting Education" (The Bedford Committee) which called for a broader role for accounting education. As noted in the final report of the Bedford Committee, "a growing gap exists between what accountants do and what accounting educators teach ... accountants who remain narrowly educated will find it more difficult to compete in an expanding profession" (Albrecht and Sack, 2000, p.2). The Bedford Committee Report was one of the first to champion the idea that the prerequisites for professional accounting success were broader than just technical skills. The report emphasized that future professional accountants need lifelong learning skills and interpersonal skills (Bolt-Lee and Foster, 2003).

In 2000, the major supporters of accounting education research in the United States joined forces to sponsor one of the most significant studies of university accounting education. The research was conducted by university accounting professors Steve Albrecht and Robert Sack and their report titled, *Accounting Education: Charting the Course through a Perilous Future,* is regularly cited by accounting education researchers. One of the major findings of the Albrecht and Sack (2000) report, which was quite controversial, was that the accounting profession believes the accounting education model is broken and obsolete. Albrecht and Sack observed that university accounting programs were focusing too much on technical content and not enough on skills development (e.g. critical thinking, communication, interpersonal skills) - skills that accounting students need to become successful professional accountants. As they noted "if those problems are not seriously addressed and overcome, they will lead to the demise of accounting education" (2000, p.1).

The last comprehensive study of accounting education took place in 2009 in Australia by the Australian Learning and Teaching Council. The report, *Accounting for the Future: More Than Numbers,* discussed the changing skill set required of professional accounting graduates. The study emphasized the importance of non-technical skills in accounting graduates and identified communication, teamwork and self management as the most desirable by employers in large organizations (Hancock *et al.,* 2009a; 2009b; 2009c). The other interesting observation of this study was that the skills deemed most lacking in accounting graduates by stakeholders and impeding career advancement were communications and problem solving (Hancock *et al.,* 2009a; 2009b; 2009c).

These various studies, commissioned by professional and governmental accounting bodies, did formalize a set of desired skills for accounting graduates. Bui and Porter (2010, p.26) summarized these skills as follows:

- functional competencies (e.g. technical accounting expertise);
- broad business competencies (e.g. general business skills); and
- personal competencies (e.g. communication, leadership and interpersonal skills and an ability to adapt to change).

The functional and broad business competencies are normally core to university accounting/business programs. These areas are often seen as the "technical skills" and are usually not debated in the accounting education literature. This study will view technical skills as these functional and broad business competencies and non-technical skills as the personal competencies identified above. The tension in the research area is with the personal competencies. Hence, the next section of the paper will review the literature around the non-technical skills in accounting education.

Review of Non-technical Skills in Accounting Education

While there has not been a comprehensive study of accounting education commissioned by a major organized stakeholder group since 2009, there has been considerable individual research on the non-technical skills required of accounting graduates for success as professional accountants.

Many researchers have studied the attributes of accounting graduates most valued by employers. Even as early as 1979 it was acknowledged that communication skills were ranked as more important than technical skills by accounting employers (Estes, 1979). Similarly Andrews and Koester (1979) concluded that employers and new accounting graduates had different perceptions about the communication skills necessary in a professional accounting career. Since then many researchers have repeatedly argued that all business students should develop non-technical skills for career success

(Aiken *et al.*, 1994; Borzi and Mills, 2001; Deppe *et al.*, 1991; Feldmann and Usoff, 2001; Jones and Sin, 2005; Lee and Blaszczynski, 1999; Novin and Tucker, 1993; Radar and Wunsch, 1980).

Research has shown that accounting students specifically are often perceived as having poor communication skills as compared to other business students (Andrews and Sigband, 1984; Gingras, 1987; Hassall *et al.*, 2005; Novin *et al.*, 1990). Zaid and Abraham (1994) found that accounting graduates experience communication-related problems in early employment and over 50% of both employers and graduates perceived these problems to be a consequence of the accounting curriculum.

In the United States, Simons *et al.* (1995) surveyed employers and found that drive, motivation, teamwork, oral communication skills, enthusiasm and interpersonal sensitivity were the most desired attributes. In a study by Hassall *et al.* (2005) employers in the UK and Spain revealed that the most valued non-technical skills for accounting graduates were teamwork, organizational, communication and time management. Kavanagh and Drennan (2008) studied the perceptions of students and the expectations of employers about the skills and attributes important for career success. Their work showed that both students and employers believed that non-technical skills are important for career success and are not being adequately developed in university accounting programs (Kavanagh and Drennan, 2008).

In 2006, De Lange *et al.* and Carr *et al.* studied accounting graduates in Australia and New Zealand respectively. In the research conducted by De Lange *et al.* (2006), the accounting alumni surveyed noted that interpersonal and oral communications skills were important for their positions after graduation but were not emphasized as part of the accounting program in university. Similarly, Carr *et al.* (2006) found that the non-technical skills identified as being most important by accounting alumni were communication and professionalism.

Research by Kavanagh *et al.* (2009) in Australia found that employers value a diverse range of non-technical skills such as communication and presentation, self management, team work, initiative and organizing skills. The researchers also found that employers will use non-technical skills as a differentiator when evaluating accounting graduates and will hire graduates who have displayed strength in these areas. Tempone *et al.* (2010) and Stivers and Onifade (2011) reached similar conclusions about the importance accounting employers placed on non-technical skills for career advancement.

Jones and Abraham (2008) surveyed final year accounting students, accounting practitioners and accounting academics in Australia to determine perceptions about the current role of professional accountants. The researchers found that accounting practitioners placed greater emphasis on personal skills and community attitudes while accounting academics strongly valued academic results and students' ability to learn (Jones and Abraham, 2008). The accounting students' considered performing the traditional accounting tasks as the most important (Jones and Abraham, 2008). This is similar to the findings of Rebele (1985) who found that current accounting students value technical skills more than non-technical skills.

Finally, Jackling and DeLange (2009) investigated whether accounting graduates' skills meet employers' expectations in Australia and found that the greatest areas of skill divergence for employers were for team skills, leadership potential, verbal communication and interpersonal skills. Their recommendation was that technical accounting skills should be taught by

professional accounting bodies while universities should focus on the development of generic skills.

Inherent in much of this research on the non-technical skills of accounting students is an identification of skills now referred to as emotional intelligence skills. Daff *et al.* (2012) compared the non-technical or generic skills requirements of professional accounting education programs with the competencies of emotional intelligence. Daff *et al.* (2012) used the generic skills component of the Certified Public Accountant (CPA) professional accounting program in Australia as the frame of reference. It is noted that this generic skill framework is similar to the frameworks of the CPA program in the United States and the Chartered Accounting (CA) program in Canada and include competencies such as appreciative, personal and interpersonal skills (Bolt-Lee and Foster, 2003; Bui and Porter, 2010; CICA, 2012; ICAA and CPA, 2009).

Daff *et al.* (2012) found that only four generic skills were not specifically covered in the EI framework. These were: think and act independently, think creatively, listening effectively and knowing what questions to ask. Daff *et al.* (2012) were more concerned with the significant components of EI that were overlooked in the generic skills frameworks of accounting programs. Table 2 is a reproduction of Goleman's Emotional Intelligence Framework that was presented in Table 1. Table 2 shows which EI competencies Daff *et al.* (2012) found were not covered in the generic skills frameworks of professional accounting programs.

Table 2: The Emotional Intelligence Framework (Source: Goleman *et al.*, 2002, p.253-256)

Personal Competence	Social Competence
Self Awareness	Social Awareness
* emotional self-awareness	* empathy
accurate self- assessment	* organizational awareness
* self confidence	*service
Self-Management	Relationship Management
* self-control	* inspiration
transparency	influence
adaptability	* developing others
achievement	change catalyst
initiative	conflict management
optimism	teamwork and collaboration
	*building bonds

* EI skills not covered in generic skills frameworks of professional accounting programs

Daff *et al.* (2012) concluded that the current focus on non-technical skills in accounting programs is missing critical dimensions of EI and these competencies are important for success in the accounting profession. The specific literature around emotional intelligence in accounting education will now be reviewed.

Review of Emotional Intelligence in Accounting Education

The ancient Greek philosopher Plato linked learning and emotion in one of his famous quotes - "All learning has an emotional base" (Esmond-Kiger *et al.*, 2006). A comprehensive search of the literature concerning emotional intelligence in accounting education revealed that there was no focused research done in this area before 2002. The emphasis of emotional intelligence as a critical skill for accountants was explored by Goleman *et al.* (2002) in a study of a large public accounting firm. This research showed that partners with strong self management and social skills achieved a 390% incremental profit annually, compared to a 50% incremental profit achieved by partners with significant analytical skills (Goleman *et al.*, 2002).

The traditional accountant is typically viewed as independent, objective and neutral. Thus, it would appear that being "emotional" would be beyond the scope of accountant (McPhail,

2004). There has been, however, a growing interest in the role of emotion in accounting (Cook *et al.,* 2011*;* Daff *et al.*, 2012). McPhail's research of Scottish accounting students taking an ethics course revealed that emotion was an adequate and trustworthy base for making a business decision (2004). Furthermore, McPhail's work concluded that accountants should be encouraged to make decisions based on their feelings and in order to do this effectively they must have well developed emotional intelligence skills (McPhail, 2004).

Chia's (2005) work with multinational public accounting firms found that the number of subsequent job interviews for accounting graduates is affected by both the number of initial job interviews as well as the level of a graduate's EI. Also, this research found that the number of final job offers is affected by the accounting graduate's level of EI and both the number of initial and subsequent job interviews. The results indicate the relevance of EI in the job search process and the importance of including EI in university accounting programs to more effectively enhance the job placement of accounting graduates.

Esmond-Kiger *et al.* (2006) studied EI in university business students in the United States and their results showed that non-accounting majors had significantly higher levels of EI than accounting majors. These researchers called for the incorporation of emotional intelligence skills into the university accounting curriculum. The research conducted by Jones and Abraham (2008) investigated whether accounting students were provided with opportunities to develop EI and if promoting EI would enable students to acquire the skills desired by the professional work environment. Their research found that academics that had worked in a professional practice environment exhibited higher levels of EI than those who had not. Further, they concluded that academics with higher levels of EI are more likely to encourage EI development in their students (Jones and Abraham, 2008).

Wells *et al.* (2009) found that emotional intelligence, as represented by personal and interpersonal capabilities, was more significant than professional skills for accounting graduates in their early years of employment. Manna *et al.* (2009) studied the perceptions of academics and practitioners in the United States about the need for accountants to possess emotional intelligence. This research found that academics did not view emotional intelligence as important as practitioners and do not incorporate emotional intelligence into their courses. Similarly, Kermis and Kermis (2010) concluded that certain dimensions of emotional intelligence have been found lacking in the new hires of accounting graduates and identify these as: "discretion, independence, patience, work ethics, soft skills, empathy and relationship building" (p.3).

Cook *et al.* (2011) examined the emotional intelligence of over 400 accounting and liberal arts students in Canada, South Africa and the United States and found that accounting graduates may need a high degree of resilience to cope with the demands of a career in accounting. These researchers concluded that “our students lack a skill that accounting practitioners and other potential employers believe is important. On average, accounting students in the three schools do not possess a level of EI that would qualify them as competent in this skill” (Cook *et al.*, 2011, p.278-279).

The theme of the research, reviewed in the previous three sections, is that there appears to be a gap between what accounting students are taught in university and what accounting employers value. The next section of the paper will explore these gaps in accounting education further.

Review of Gaps in Accounting Education

Over the years accounting education researchers have identified several "gaps" in accounting education. Many of these gaps are similar in nature and are summarized in Table 3.

Table 3: Studies on Gaps in Accounting Education

Gap	Description	Author(s)	Country
Preparation Gap	The researchers identified a preparation gap between corporate needs and accounting students' skills and knowledge	Siegel and Sorensen (1994)	USA
Preparation Gap	A review of the curriculum requirements for entry-level management accountants from the perspective of employers was found to have gaps.	Richardson (2005)	Australia
Skills Gap	Accounting students lack communication and problem solving skills expected by employers.	Milner and Hill (2008)	UK
Synchronization Gap	Accounting curricula does not match market demands as most undergraduate courses have remained unchanged for 25 years.	Siegel *et al.* (2010a)	USA
Expectation-Performance Gap	There is a perceived gap between the expectations of accounting employers and their perception of the competencies accounting students should have.	Bui and Porter (2010)	New Zealand

These existing studies focus on describing the perceived gap but they offer very few suggestions for reconciliation. Also, a gap in accounting education with respect to the coverage of emotional intelligence skills has never been studied. Thus, the current study has an opportunity to investigate a potential emotional intelligence gap and offer recommendations for improvement.

Concluding Remarks - Theoretical Foundations and Literature Review

While there has been a considerable amount of research conducted in the subject area of the research project, the field is still far from mature and it is dominated with contributions from the United States and Australia. Consequently, the literature review did reveal that there are some opportunities for both an academic and practical contribution, particularly in a Canadian context.

Conceptual Framework

As noted by Miles and Huberman (1984), the conceptual framework is intended to be "the current version of the researcher's map of the territory being investigated" (p.33). It is also known as a conceptual model or theoretical framework (Sekaran, 2003). The conceptual framework is viewed as being an essential prerequisite for the research exercise (Leshem and Trafford, 2007).

Based on the literature review and the theoretical discussions, the following conceptual framework and hypotheses have been developed for this research project:

A study of employer and graduate attitudes about whether university accounting programs provide the emotional intelligence (EI) skills accounting graduates need.

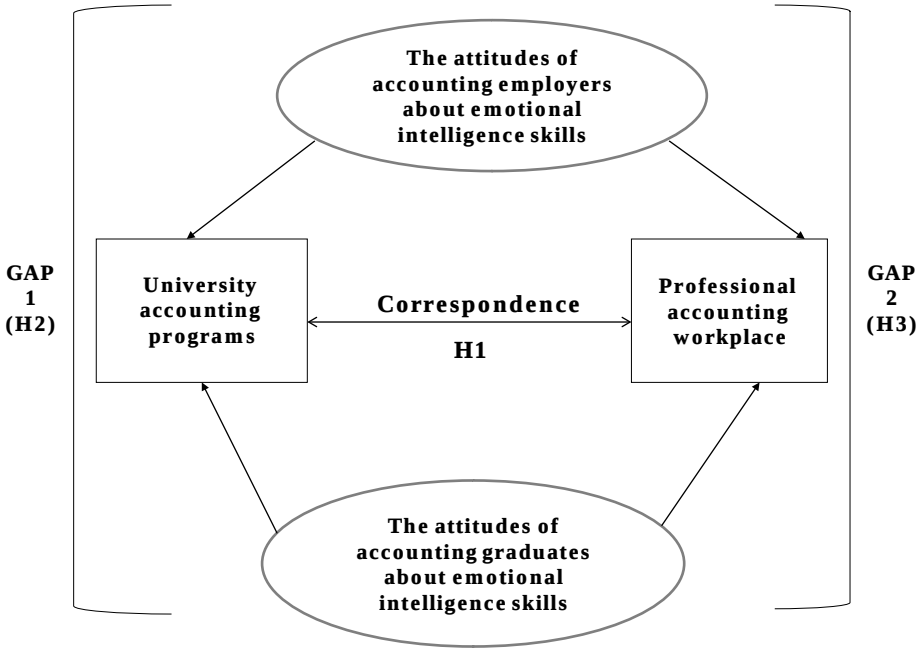

Figure 1: Conceptual Framework

H1: Accounting employers and graduates expect correspondence between the skills covered in university accounting programs and those required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the coverage of emotional intelligence skills in university accounting programs. (Gap 1)

H3 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the professional accounting workplace. (Gap 2)

The first hypothesis is based on the neo-correspondence theory and predicts that both accounting graduates and employers expect correspondence between the skills covered in university accounting programs and those required in the accounting workplace. The other hypotheses focus specifically on emotional intelligence skills and are based on the literature review completed for the study. The second hypothesis predicts that employers believe that emotional intelligence skills should be covered in university accounting programs while accounting graduates do not believe that emotional intelligence skills are or should be covered in university accounting programs. It is also anticipated that the third hypotheses will be proven in that that accounting graduates do not believe that emotional intelligence skills are as important for a career in professional accounting as accounting employers do.

It is noted that all of these hypotheses are descriptive. Descriptive hypothesis contain only one variable and typically state the existence, size, form, or distribution of some variable (Cooper and Schindler, 2011). The following advantages of the descriptive hypotheses are noted by Cooper and Schindler (2011): (1) “it encourages researchers to crystallize their thinking about the likely relationships to be found; (2) it encourages [researchers] to think about the implications of a supported or rejected finding; and (3) it is useful for testing statistical significance" (p.63).

The conceptualized research project is a descriptive study which is widely used in educational research (Gay *et al.,* 2006; McMillan and Schumacher, 2001). Descriptive research is used to study achievement, attitudes, behaviours, preferences, concerns, interests or other characteristics of a group of subjects (Gay *et al.,* 2006; McMillan and Schumacher, 2001). Descriptive research is essential in many situations and is particularly valuable when an area is first investigated (McMillan, 2004). This point is very relevant to the proposed descriptive

study as the attitudes of accounting graduates and employers about the importance of emotional intelligence skills have never been studied from the perspective of the neo-correspondence theory.

It is acknowledged that the findings for a descriptive study will not prove a causal relationship. Consequently some question the worthiness of descriptive research and refer to it as "intelligence gathering" (Phillips and Pugh, 2005). However, it should be noted that an important feature of a descriptive study is that some of the evidence collected might lead to causal investigations. For example, in the proposed study - what causes accounting employers to have the attitudes they have about emotional intelligence? Or what causes accounting graduates to have the attitudes they have about the importance of emotional intelligence for their future careers? As noted by Sekaran (2003), descriptive studies that present data in a meaningful form help to: (1)"understand the characteristics of a group on a given situation; (2) think systematically about aspects in a given situation; (3) offer ideas for further probe and research; and (4) help make [management] decisions" (p.122). This proposed descriptive research study has the potential to provide the foundation for many future studies in the accounting education research area.

The conceptual framework proposed in this paper will be used to study the attitudes of accounting graduates and accounting employers in the Canadian context, specifically in Atlantic Canada (the four most eastern provinces in Canada). This region contains ten universities and the graduates of these schools who pursue the CA program are all students of the Atlantic School of Chartered Accountancy (ASCA - the regional institution that delivers the professional CA program in Atlantic Canada). These 500 university accounting graduates (or ASCA students) and the 100 CA employers in Atlantic Canada comprise the sampling frame for the study. There are three other regional institutions in Canada, like ASCA, that deliver the CA program to Canadian accounting graduates in other Canadian provinces (e.g. the western provinces, Ontario and Quebec). Thus, this study will provide results that are relevant and comparable in the Canadian context.

Given the influence of national and regional professional accounting bodies on the content of university accounting courses, it is acknowledged that this research study has to be cognizant of that intricate affiliation. While the CICA and ASCA are not noted in the current conceptual framework diagram, the involvement of these stakeholders in the research study has been considered. Depending on the results of the surveys of the accounting graduates and accounting employers, consultation with the appropriate officials at the CICA and ASCA can be arranged and incorporated into the research study.

Conclusion

The accounting profession has been transformed in this century due to many external factors. As a result there has been "a positive paradigm shift within the profession that increases the importance given to non-technical skills and to put these skills on a level with technical skills" (Foley, 2007, 52). More specifically, technical expertise is now viewed as baseline in the accounting profession while emotional intelligence is seen as the secret to career success (Foley, 2007; Goleman, 2000; Smigla and Pastoria, 2000). This is concerning given that universities are being criticized for producing accounting graduates who are too theoretical and not "work ready" (Howieson *et al.,* 2010; Kavanagh *et al.,* 2009; Siegel *et al.,* 2010b). For these reasons this issue is of great importance to accounting graduates, employers and universities.

Even in the best of economic times university resources are scarce and thus should be utilized in the most relevant and efficient manner. If the value proposition of the accounting programs at universities is in question will the best and bright students opt for other degree programs? Accounting faculties would then have less qualified students and reduced resources (Albrecht and Sack, 2000; Karr, 2005). Some claim that if accounting education is not viewed as relevant for today's business world professional accountants will lose their competitive edge and vitality in the marketplace (Brooks, 2007). If there are perceived gaps in university accounting programs, proposals for change are required. Thus, there is an opportunity for the proposed research study to make meaningful recommendations for practice.

In addition to a practical role, this research study will be relevant for the academic community through a descriptive contribution to the theories of emotional intelligence and neo correspondence. The emotional intelligence field is still relatively new and the neo-

correspondence theory has never been used in an emotional intelligence context before. Overall, this research agenda has meaning in the accounting education research field, the professional accounting workplace and in the university accounting classroom.

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PAPER 2:

Philosophy & Research Methodology

A research methodology for investigating graduate and employer attitudes on the skill set requirements for professional accountants: should emotional intelligence be covered in university accounting programs?

Research-in-Progress

Abstract

This paper presents a research methodology for investigating graduate and employer attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs. Emotional intelligence is the effective awareness, control and management of one's own emotions, and those of other people. Theories of emotional intelligence assert that EI is more important than cognitive ability or technical expertise in predicting managerial success - even in the accounting field. As a result there has been considerable debate about the need for accounting graduates to develop EI skills in their university accounting programs so they are better prepared for a career in the accounting profession. This study will use the theoretical framework of the neo-correspondence theory, which emphasizes the connection between higher education student experience and the workplace, to investigate the attitudes of accounting graduates and accounting employers. The research study is positioned with a positivist world view and will utilize a deductive quantitative approach. The primary research technique will be surveys of accounting graduates and accounting employers. This research has the opportunity for contribution to theory and practice with potential significant implications for the design of university accounting programs.

Keywords: accounting education, emotional intelligence, non-technical skills, research methodology

Introduction

This paper will present a research methodology for investigating graduate and employer attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs provide the emotional intelligence (EI) skills an accounting graduate needs.

During the last 35 years there have been many studies (AAA, 1986; Albrecht and Sack, 2000; Carr *et al.*, 2006*;* De Lange *et al*., 2006; Deppe *et al*., 1991; Estes, 1979; French and Coppage, 1999; Hancock *et al.*, 2009; Kavanagh and Drennan, 2008; McPhail, 2004; Pan and Perera, 2012; Richardson, 2005; Siegel and Sorensen, 1994; Usoff and Feldmann, 1998) regarding the desired skills for accounting students. While the professional accountant's role comprises both technical and nontechnical skills, these studies concluded that nontechnical skills (e.g. communication, leadership, team work) are extremely important in the accounting profession and should be integrated more into university accounting programs.

Since 2002, most of the research on the nontechnical skills of accounting students has specifically focused on emotional intelligence skills (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al*., 2010). The concept of EI was first conceptualized by Salovey and Mayer (1990) as a form of social intelligence "that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions"(p. 189). Daniel Goleman (1995; 1998; 2000) built on the concepts of Salovey and Mayer and broadened their narrow concept of EI to include four constructs: self-awareness, self management, social awareness and relationship management. These four EI constructs each contain a set of emotional competencies (with a total of 19 competencies across the four constructs).

Goleman was the first to extend the concept of EI to the business world and his research has concluded that "truly effective leaders are distinguished by a high degree of emotional intelligence"(1998, p.82). More specific research about leadership in the accounting profession has found that the most successful accountants are both technically and emotionally competent (Akers and Porter, 2003; Goleman *et al.*, 2002; Kermis and Kermis, 2010; Turner, 2004). Given Goleman's work in a business context, and specifically the accounting field, this conceptualization of EL underlies the current study. It is noted that most of Goleman's work does focus on mid to late career professionals and as such there is opportunity to investigate the value of EI for entry level accounting graduates.

The accounting profession has been transformed in this century as the industry has become more regulated (e.g. Sarbanes-Oxley Act, 2002), competitive, global, cross-functional and technology driven (Bolt-Lee and Foster, 2003; Karr, 2005; Tatikonda, 2010). In the last decade, professional accountants have seen "a positive paradigm shift within the profession that increases the importance given to people skills and to put these skills on a level with technical skills"(Foley, 2007, p. 52). Technical expertise is now viewed as baseline in the accounting profession while emotional intelligence is seen as instrumental to career success (Goleman, 2000; Smigla and Pastoria, 2000). Universities are regularly being criticized for producing accounting graduates who are too theoretical and not "work ready" (Howieson *et al.*, 2010; Siegel *et al.*, 2010). Consequently, while many researchers have concluded that there is a gap between the skills accounting students develop in university and what accounting employers value, there has not been a specific focus on a potential emotional intelligence gap.

The neo-correspondence theory asserts that higher education institutions should consider employer expectations and align the curriculum accordingly (Gintis, 1971; Saunders and Machell, 2000). This theoretical framework provides the context for the investigation of whether university accounting programs provide the emotional intelligence skills that accounting graduates need for success as professional accountants. The neo-correspondence theory has only been applied once in an accounting education context (Pan and Perera, 2012) and never in the area of emotional intelligence.

The proposed title of the current research study is:

Graduate and employer attitudes on the skill set requirements for professional accountants: Should emotional intelligence be covered in university accounting programs?

The research questions for the study are:

1. What technical and nontechnical skills are viewed as important by accounting graduates and employers in the accounting workplace?

2. To what extent have these technical and nontechnical skills been developed in university accounting graduates?

3. Where do accounting graduates and employers believe that accounting graduates should develop these technical and nontechnical skills?

The technical skills are included in the scope of the study given their importance in university accounting programs and professional accounting practice. For example, the competency maps for professional accounting programs include the desired complete skill set (technical and nontechnical skills) for professional accountants (AICPA, 2012; CICA, 2012; ICAA and CPA, 2009). Consequently, questions about technical skills are included in the surveys for the current study because it is important that respondents express their opinions about nontechnical skills within the framework of the perceived complete skill set for professional accountants. If the technical skills were excluded from the study, a critical context might be lacking. This is also important given that the study is concerned with the correspondence between higher education and the workplace. Finally, as the study aims to make a contribution to practice, in particular to university accounting programs, it was essential that technical skills be included given their prominence in the accounting curriculum.

As noted earlier, the tension between technical and nontechnical skills in university accounting programs and their perceived value in the workplace has been well established in the literature. The correspondence between university accounting programs and the accounting workplace, with respect to emotional intelligence skills, is not as well documented. Thus, the following specific hypotheses have been developed for testing based on the literature review:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

In keeping with the traditional definition of research methodology, the paper will first discuss the philosophical assumptions upon which the research is based and the implications of these for the research design adopted. A review of the methodological research in accounting education will be provided next, followed by an overview of the research design for the study. The more specific aspects of questionnaire design, sampling strategy, general administration of the study, and validity and reliability will then be discussed. Finally, the last sections of the paper address the study's limitations and provide some concluding remarks on the research methodology for the study.

Research Philosophy

The scheme for analyzing assumptions about the nature of social science, as developed by Burrell and Morgan (1979), provided an excellent framework for the philosophical appraisal of the current study. For the four main categories of assumptions, there is a continuum with "pure" versions at each extreme. Most management researchers adopt some "middle ground" with respect to developing research methods (Easterby-Smith *et al.*, 1991). Thus, while the research study may be presented in a pure manner, it is acknowledged that in practice a less extreme position will likely result.

In terms of ontology, or assumptions about the nature of reality, the research study is based in realism, which contends that the social world is a real world with an existence as concrete as the natural world (Blaikie, 1993; Burrell and Morgan, 1979). This is very aligned with the epistemology (assumptions about the nature of knowledge) of positivism (Blaikie, 1993; Burrell and Morgan, 1979). Positivism contends that the social world exists externally and can be measured objectively with a scientific approach (Adcroft and Willis, 2008; Bryman, 1989). Some of the main features of the positivist stance include: independence of the observer,

causality, hypothetic-deductive reasoning, reductionism and generalisation (Easterby-Smith *et al*., 1991; Holden and Lynch, 2004).

In the assessment of the human nature element of the research, the continuum between voluntarism to determinism was reviewed. The human nature appraisal relates to assumptions about the relationship between humans and their environment (Burrell and Morgan, 1979). At one extreme, voluntarism contends that man is a free spirit and autonomous (Holden and Lynch, 2004). The opposing extreme view is that of determinism which contends that man is a responder to the environment. While the study is more aligned with determinism it is proposed that the less extreme position of man as an adaptor might be more appropriate (Easterby-Smith *et al*., 1991).

The final aspect of Burrell and Morgan's assumptions are methodological in nature. This concerns the nature of the research design and methods (Sarantakos, 2005). The positivist position is associated with the nomothetic approach that emphasizes scientific rigour in protocols, methods, testing hypotheses. Consequently, in terms of methodology, the study follows nomothetic theory.

In summary, the research study will have a realist, positivist, determinist and nomothetic orientation. There are very direct implications of this philosophical positioning for the research project design. The positivist approach requires that the researcher be independent and objective and the methodology to be a highly structured quantitative approach.

A review of the methodological research in the accounting education area will be reviewed in the next section of the paper.

Review of Methodological Research in Accounting Education

Some authors contend that accounting researchers are not very original and are "parasites who prey on the work of others to generate their findings" (Brownell, 1995, p.2). As noted by Smith (2011):

> "Accounting researchers have little theory of their own (they rely on economics, finance, psychology, sociology and organizational behaviour as their major source); they have no methods of their own (they are all adapted from the natural and social sciences); and they have few instruments of their own (with many of these originating or adapted from the organizational behaviour literature" (p.1).

Thus, very little in accounting research is original when it comes to research methodology. Also, as Smith (2011) notes, "the positivist tradition remains the most popular in the accounting literature" (p.16). These observations are consistent with the research profile of the specific area within accounting (i.e. accounting education) being examined in the current study. A review of 50 studies in the area of nontechnical skills and emotional intelligence in accounting education educed a number of insights into this field. This resulted from a search of relevant papers and studies in leading accounting journals (e.g. *Journal of Accountancy*, *Accounting Education*, *Critical Perspectives on Accounting*) and professional accounting body publications from 1979 to 2012.

In terms of research methods, 54% of the studies reviewed were quantitative, 24% practically oriented (e.g. curriculum reviews), 18% mixed methods (mostly quantitative/qualitative) and 4% were qualitative. The summary did reveal that 74% of the studies did not have research questions or hypotheses and were descriptive in nature. Of the remaining studies examined, 16% had research questions while 10% had formulated hypotheses.

Similarly, 76% of the studies reviewed did not have a theory base. Of the studies that did 14% were based on emotional intelligence theory while the other 10% were one-offs (e.g. Grounded Theory, SERVQUAL, Neo-Correspondence Theory). These findings are consistent with the results of reviews of higher education research where there have been critics of the lack of theory use (Tight, 2004) and the type of theory use (Haggis, 2009).

In terms of samples, the most commonly studied stakeholder group is current university students (26%). Next are employers (18%), curriculum reviews (14%), academics (8%) and recent accounting graduates (6%). The remaining studies sampled some combination of students, employers and academics. Approximately 10% of the studies did not use a sample of some stakeholder group.

The implications of all these finding were considered in the research design of the current study, which will be examined in the next section of the paper. This discussion will further demonstrate the very close relationship of research techniques with the conceptualisation and philosophical perspective of the study.

Research Design

There are many acceptable definitions of research design. The most common view is that research design is a framework or blueprint for the collection, measurement and analysis of data (Bryman, 1989; Cooper and Schindler, 2011).

Within the broad area of research design a distinction is made between research purpose and research strategy. When considering the purpose of a research project three classifications are most often found in the literature: exploratory, descriptive and explanatory. Exploratory studies are conducted in areas where there has been little investigation previously and the researcher wants to better comprehend the nature of the problem (Sekaran, 2003). Descriptive studies are "undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation"(Sekaran, 2003, p.121). Descriptive studies are usually quantitatively based and serve to help the researcher gain insights into an individual's perspective on a certain phenomena of interest (Sekaran, 2003). Finally, explanatory studies establish causal relationships between variables (Saunders *et al.*, 2009).

The current research is a descriptive study - "description of phenomena or characteristics associated with a subject population [the who, what, when, where and how of a topic]" (Cooper and Schindler, 2011, p.149). Descriptive research is used to study achievement, attitudes, behaviours, preferences, concerns, interests or other characteristics of a group of subjects (Gay *et al.*, 2006; McMillan and Schumacher, 2001).

It is acknowledged that the findings for a descriptive study will not prove a causal relationship. Consequently some question the worthiness of descriptive research and refer to it as "intelligence gathering" (Phillips and Pugh, 2005). Other critics note that descriptive studies are "superficial" and should not be used to research important problems (Good, 1963). Descriptive research, however, is essential in many situations and there is merit to this approach. For example, "descriptive research is particularly valuable when an area is first investigated" (McMillan, 2004, p. 177). Also, Gay *et al.* (2006) note that descriptive research is more detailed and complicated than some critics realize. Normally, descriptive researchers have to develop their own measuring instrument because questions are being asked that have not been asked before. All of these points are very relevant to the current study as accounting graduate and employer attitudes about emotional intelligence have not been previously studied from the perspective of the neo-correspondence theory. And standardized data collection instruments do not exist in this research field.

In terms of research strategies for the current study, there are many options (e.g. archival research, case study, ethnography, experiments, surveys) any of which can be used for descriptive research proposes. In keeping with the philosophical positioning of the study, the research strategy selected must be consistent with the positivist approach. Of the research strategies available, experiments, surveys and archival research are quantitative in nature. Given that the current study will investigate graduate and employer attitudes, the most suitable research technique is surveys.

Given the size and geographic distance of both populations, questionnaires are the most suitable type of survey instrument to use as the primary data collection method. Semi-structured interviews, while valuable, would not yield the same quantity of data about the two populations. Questionnaires can obtain data from a large portion of the population in a cost efficient and timely manner (Bryman, 2004; Bryman and Bell, 2007). Also, the use of a questionnaire is better suited for standardised questions (Saunders *et al.*, 2009). Self completed questionnaires are also more convenient for the busy target audience of the study. In general, surveys are the most used method of data collection in social sciences and education research and are normally associated with a deductive approach and descriptive research (Creswell, 2008; Sarantakos, 2005; Saunders *et al.*, 2009). The next section of the paper will examine the questionnaire design for the current research project.

Questionnaire Design

Questionnaire design is critical to the success of this type of survey research. "Most criticism of questionnaires is related not to their use but to their misuse" (Gay *et al.*, 2006, p.163). Dillman (2007) identifies the following three types of data variables that can be collected through questionnaires: behaviour, opinion and attribute. Behavioural variables try to capture what respondents do (Dillman, 2007). The study is designed to assess attitudes and as such opinion variables are being sought. Attribute variables capture data about the characteristics of the respondent such as age, gender and education (Dillman, 2007). This would be useful information to obtain in the proposed questionnaires because attitudes might differ by such characteristics. This attribute information could also be helpful if a casual element is added to a follow-up study in the future. Thus, the current study will collect data about attribute and opinion variables.

Questionnaires have been drafted (see Appendix A) for both groups of survey respondents: accounting graduates and accounting employers. In general, the questionnaires were based on the findings from the literature review and some of the questionnaires from the key studies in this review. For example, the questions asked by Albrecht and Sack (2000), Jones and Abraham (2008), Kavanagh and Drennan (2008), Pan and Perera (2012) and Richardson (2005) were reviewed. The current questionnaires particularly built on the work of Kavanagh and Drennan (2008) who adapted the survey used by Albrecht and Sack (2000) to an Australian context because it was validated previously in a large study in the United States.

Each questionnaire for the current study has two sections with the opinion variables being collected in section one and the attributes variables in section two. The attribute or demographic information was left to the end of the survey because of Dillman's (2007) advice about the possibility of sensitive items affecting survey completion. In general, in drafting the questionnaires, great care was taken to structure the questions in an understandable and uncomplicated manner. As noted by Baker (2003), survey "questions should be simple, intelligible and clear"(p. 348). Similarly the construction of questions should involve "clarity, consistency and tact" (Gay *et al.*, 2006, p.11).

Opinion variables will be collected through closed questions (with some response options) such that a simple yes or no answer cannot be given. Typical measurement scales that can be used in questionnaires include: nominal, ordinal, interval and ratio. Interval scales are the most powerful scales of the types because it "taps the differences, the order, and the equality of the magnitude of the differences on the variable"(Sekaran, 2003, p.188).

Graduate and employer attitudes will be determined using a five point Likert scale. Likert scales are widely used to assess attitudes and the response categories range between two extreme points with various points in between (Easterby-Smith *et al.*, 1991; Sarantakos, 2005). Likert scales are usually not difficult to construct or administer (Baker, 2003, Oppenheim, 1992). They are also widely used in educational research (Creswell, 2008; Gay *et al.*, 2006). The use of scales were deemed more appropriate than rankings for assessing attitudes. Oppenheim (1992) noted that scales “provide more precise information about the respondents’ degree of agreement or disagreement” (p.200). Some of the key studies, (e.g. Albrecht and Sack, 2000; Jones and Abraham, 2008; Kavanagh and Drennan, 2008; Pan and Perera, 2012; Richardson, 2005), examined as part of the literature review for the current study have used questionnaires with Likert scales. Also, on a practical level, the ranking of the 31 skills against one another might be too cognitively difficult for respondents.

In section one of both questionnaires, respondents are asked three main questions (parts A, B and C) about 30 different skills areas. The formatting in parts A, B and C of section one are very similar and the respondents will only have to select a box. The skills areas are divided between nontechnical and technical skills. There are 21 nontechnical skills listed in the questionnaires and 19 of these are the emotional intelligence competencies identified by Goleman *et al.*, (2002) during the conceptualization of the study. It is noted that the term emotional intelligence or EI is not explicitly identified in the survey instruments to counter any potential acquiescence bias. Instead, the specific emotional intelligence competencies, as noted below in Table 1, were included in the surveys.

Table 1: The Emotional Intelligence Framework (Goleman *et al.*, 2002, p.253-256)

Personal Competence	Social Competence
Self Awareness (1) emotional self-awareness (2) accurate self- assessment (3) self confidence	Social Awareness (10) empathy (11) organizational awareness (12) service
Self-Management (4) self-control (5) transparency (6) adaptability (7) achievement (8) initiative (9) optimism	Relationship Management (13) inspiration (14) influence (15) developing others (16) change catalyst (17) conflict management (18) teamwork and collaboration (19) building bonds

These EI competencies have been studied previously, particularly in an accounting education context (Daff *et al.*, 2012). Daff *et al.* (2012) concluded that the current focus on non-technical skills in accounting programs is missing critical dimensions of EI and these competencies are important for success in the accounting profession. The other two skills included in the nontechnical skills area of the questionnaires are oral and written communication skills. These communication skills were included because prior to 2002 the research around nontechnical skills in accounting education focused on communication (Aiken *et al.*, 1994; Andrews and Koester, 1979; Andrews and Sigband, 1984; Estes, 1979; Gingras, 1987; Hassall *et al.*, 2005; Novin *et al.*, 1990; Rebele, 1985; Zaid and Abraham, 1994). And in more recent studies on the skill sets for professional accountants, communication skills were included (Kavanagh and Drennan, 2008; Pan and Perera, 2012; Richardson, 2005).

The technical skills area in the questionnaires are nine skills which are considered important in the accounting profession. These technical skills (e.g. financial accounting, management accounting, taxation, audit, finance, strategy and governance, information technology, analytical and integrative thinking) have been identified in the competency frameworks of the major professional accounting bodies in Canada, Australia and the United States (AICPA, 2012; CICA, 2012; ICAA and CPA, 2009). They have also been identified and tested in some of the studies reviewed for this paper (Albrecht and Sack, 2000; Pan and Perera, 2012; Richardson, 2005). See Appendix B for a summary of the nontechnical and technical skills used in the survey instruments with the relevant links to the literature base.

The three main survey questions are directly connected to the research questions and hypotheses of the study as summarized in Table 2. The table also indicates which studies, examined as part of the literature review, are significant to these question areas.

Table 2: Summary of Research Questions, Survey Questions, Hypotheses and Key Studies

Research Questions	Survey Questions	Hypotheses	Key Studies
1. What technical and nontechnical skills are viewed as important by accounting graduates and employers in the accounting workplace?	Section One (Part A): The importance or not of each skills area in the accounting workplace.	H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.	Albrecht and Sack, 2000; Bui and Porter, 2010; De Lange *et al.*, 2006; Jones and Abraham, 2008; Jackling and De Lange, 2009; Kavanagh and Drennan, 2008; Richardson, 2005; Stivers and Onifade, 2011; Wells *et al.*, 2009.
2. To what extent have these technical and nontechnical skills been developed in university accounting graduates?	Section One (Part B): The extent to which each skills area is developed in accounting graduates.	H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.	Hancock *et al.*, 2009; Jacking and De Lange, 2009; Richardson, 2005.
3. Where do accounting graduates and employers believe that accounting graduates should develop these technical and nontechnical skills?	Section One (Part A): The importance or not of each skills area in the accounting workplace. Section One (Part C): Where accounting graduates should primarily develop each skills area.	H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.	Kavanagh and Drennan, 2008; Pan and Perera, 2012.

The questions relating to the attribute variables, in section two of the questionnaire, will vary slightly among the two groups of respondents. These attribute variables include items such as: gender, years since graduation, location, type of university degree and type of office. It is anticipated that the responses to the three questions in section one about the various skills areas will vary according to these attributes. Thus, there is a potential opportunity to offer new insights with respect to the population characteristics in keeping with descriptive research design.

After reviewing the questionnaires, the next step in the research design process is to review the sampling strategy for the research study which is discussed in the next section of the paper.

Sampling Strategy

The research methodology proposed in this paper will be used to study the attitudes of accounting graduates and accounting employers in the Canadian context. In Canada the CA program is administered regionally (Western Canada, Ontario, Quebec and Atlantic Canada) and nationally. The professional accounting programs and university accounting curriculum in each region are similar as all CA students write the same nationally administered uniform final evaluation. Given this degree of standardization of accounting education in Canada, this study will use a large quota sample in one of the Canadian regions. A quota sample reflects the main characteristics of the population but is not chosen randomly as the final selection is done

by the researcher (Bryman and Bell, 2007). The advantages of quota sampling include lower cost, ease of set-up and greater control for the researcher (Saunders *et al.*, 2007).

The study will focus on Atlantic Canada (the four most eastern provinces in Canada). These provinces are: Newfoundland and Labrador, Nova Scotia, New Brunswick and Prince Edward Island. Atlantic Canada has ten universities and the graduates of these schools who pursue the Chartered Accounting (CA) program are all students of the Atlantic School of Chartered Accountancy (ASCA - the regional institution that delivers the professional CA program in Atlantic Canada and Bermuda). These 500 university accounting graduates (or ASCA students) and the 100 CA employers (with 2-5 partners/senior managers per office who supervise accounting graduates) in Atlantic Canada comprise the quota sample for the study. Further details regarding the operation of the surveys will be discussed in the next section of the paper.

Survey Administration

In terms of types of self-completed questionnaires, the two main options are a mail questionnaire and an electronic questionnaire. Given the prevalent use of the Internet now in the workplace, electronic surveys seem like a logical choice. Accounting graduates and employers are normally computer literate with email and computer access. In fact, much of the work of an accountant is now done electronically given that the old audit paper file has been replaced with an electronic file. Also, members of the accounting profession are used to getting electronic questionnaires periodically from the regional or national chartered accounting associations. Thus, electronic questionnaires will be utilized. It was decided, however, that the questionnaire to employers would also be sent in hard copy so that employers could participate in either format. The hard copy option was added for employers because some members of this population might not be as computer literate as the accounting graduate population. It is planned that a personalized letter addressed to the specific respondent will accompany the mailed questionnaires. Dillman (1991) notes that personalization has been found to increase the response rate in mail surveys.

The board of ASCA has agreed to support the research study by distributing the accounting graduate survey to their students and sending multiple follow-up requests. The questionnaire to accounting graduates will be distributed electronically by ASCA with a link to complete the survey online (e.g. a web hosted survey) with the results being sent directly to the researcher. The respondents will not be identified in the electronic survey form and the survey responses will be anonymous.

The questionnaire to accounting employers will be sent in hard copy and by email (with a link to complete the survey online) directly by the researcher. The names of the accounting employers in Atlantic Canada that are authorized to train CA students is publicly known and thus obtaining contact details will not be difficult. ASCA is also willing to provide assistance with employer contact details if needed. The hard copy questionnaires will include a return envelope with an affixed real postage stamp. As Oppenheim (1992) notes, "a real stamp rather than a business return envelope indicates trust and will increase response rates" (p. 105). Neither hard nor electronic survey forms will require the respondent to be identified and all responses are anonymous. Follow-up email requests (to all selected survey recipients) will be sent for the employer questionnaires as well.

Another critical step in using questionnaires is that they should be pilot tested (Cooper and Schindler, 2011). Pilot testing is important because questions can be refined if necessary and overall the researcher can ensure that the respondents had no difficulties in answering the questions (Saunders *et al.*, 2009). Some of the objectives of pilot testing are to assess questionnaire length, ease of completion, and overall effectiveness of the survey administration (Sarantakos, 2005; Smith, 2011). Tests for validity and reliability can also be made at the pilot stage. Given the importance of reliability and validity, these concepts will be discussed in greater detail in the next section of the paper.

The two questionnaires will be pilot tested on accounting graduates and accounting employers (who will not be part of the final sampling frame) in Atlantic Canada in June 2013. Cooper and Schindler (2011) advise that the pilot group should range from 25-100 subjects. However, it is noted that "in very small populations or special applications, pilot testing runs the risk of exhausting the supply of respondents" (Cooper and Schindler, 2011, p.89). The researcher will follow the guidance of Fink (2003) who suggests that the minimum number in a pilot test should be ten. Thus, ten graduates and ten employers will be selected for the pilot test.

Large samples are critical when utilizing a quantitative approach for a positivist based research study. There is no authoritative guidance on the desired response rate for a questionnaire. Some report that surveys in leading educational journals report a 50% response rate (Creswell, 2008). Others claim that response rates for electronic questionnaires are lower than mail questionnaires (Sheehan, 2001; Tse, 1998). Bosnjak *et al.* (2005) completed a meta-analysis of 36 published and unpublished experimental comparisons between web and other survey modes. Their research concluded that the common assumption of lower response rates for web surveys compared to other modes does not hold true. Kaplowitz *et al.* (2004) concluded that a web survey can achieve a comparable response rate to a mail questionnaire. Furthermore, Cobanoglu *et al.* (2001) and Yun and Trumbo (2000) found that the online survey achieved a higher response rate and a faster response speed than other survey types. In the studies reviewed in the accounting education field, the response rates were different for employers and graduates. For example, Pan and Perera (2012) had a response rate of 41.9% for employers and Richardson (2005) reported a 38.8% employer response rate. In surveys of accounting graduates, Jackling and Delange (2009) and Carr *et al.* (2006) reported response rates of 27% and 26.4% respectively.

This researcher will employ several strategies to encourage high return rates for both surveys. Some research shows that notifying participants in advance helps to increase the response rate (Creswell, 2008; Lee and Lings, 2008.). This has been found specifically relevant for online surveys (Bryman and Bell, 2007). Also, follow-up procedures will be done to remind participants to complete the questionnaire. In general it has been found that the more friendly, serious and honest the cover letter the more likely the questionnaire will be completed (Sarantakos, 2005). Similarly, the easier it is for the questionnaire to be completed and returned the more likely it will be done (Davis, 1996). These features were considered when the questionnaires were drafted and the distribution strategy planned.

The level of interest in the subject matter and the rationale for the survey has also been shown to affect response rates (Sarantakos, 2005). This is a very persuasive point for the current study. Accounting graduates and accounting employers are normally very interested in the education of chartered accounting students. Thus, it is expected that there will be an intrinsic interest in completing the questionnaires. Finally, research shows that the creditability of the individual or organization conducting the research affects the response rate. Higher education institutions tend to have more creditability which results in high response rates (Muijs, 2004). Thus, it might be advantageous that the researcher works at a university. It has also been shown that "having an established relationship with the respondents will help improve response rates" (Muijs, 2004, p.43). ASCA is an educational institution that is highly regarded by accounting graduates and accounting employers in Atlantic Canada. Every CA that has qualified in Atlantic Canada is an alumnus of ASCA and this affiliation is very positive. Thus, having ASCA involved with the distribution of the graduate questionnaire is advantageous. Nonetheless, the response rate will be monitored closely to ensure that the data collected is large enough to ensure external validity.

While the primary data collection method for the current study is questionnaires, it is acknowledged that further data collection might be needed. Given the influence of professional accounting bodies, like ASCA, and university accounting academics on the content of university accounting courses, it is recognized that this research study has to be cognizant of these intricate relationships. While ASCA and accounting academics are not noted in the current conceptual framework for the study, the involvement of these stakeholders in the research study has been considered. Depending on the results of the surveys of the accounting graduates and accounting employers, consultation with ASCA and accounting academics will be arranged and incorporated into the research study. If this consultation is required it will be in the form of semi-structured interviews which are compatible with the philosophical foundation of the research study.

Another critical aspect of research design is the consideration of ethical matters. Bell and Bryman (2007) note that ethical issues are of particular concern in business research. Given that the current research project will involve human subjects, specific attention to ethical matters is warranted. The ethics application for the current study was reviewed by the Ethics Committee of the Waterford Institute of Technology (WIT) and ethical clearance was granted. Important issues such as confidentiality, privacy, informed consent and data storage were addressed by the researcher.

Finally, as noted previously, the validity and reliability of the data collected is very important and thus will be discussed separately in the next section of the paper.

Validity and Reliability

Validity is the "property of a research instrument that ensures its relevance, precision and accuracy" (Sarantakos, 2005, p.83). Validity will assure the researcher that the questionnaire is measuring what it is supposed to measure. Reliability refers to consistency and is concerned with objectivity, accuracy, precision and stability (Sarantakos, 2005). These are hallmarks of the quantitative deductive approach and the positivist perspective.

Two types of validity for the study will be discussed in this section of the paper: content validity and external validity. Content validity requires that the "questions in the questionnaire provide adequate coverage of the investigative questions" (Saunders *et al*., 200, p.373). A basic index of content validity is face validity which means than on appearance it seems like the questionnaire measures the concepts intended (Sekaran, 2003). The content or face validity for this study was assessed item-by-item in each questionnaire by the researcher who is very familiar with the subject area. The two questionnaires were also thoroughly reviewed by the ASCA board (comprised of CA employers and accounting academics) and an independent accounting academic. This review is to ensure that in addition to empirical issues, theoretical and practical considerations were included in the questionnaire design (Hair *et al*., 2010). The internal validity of the study will be further enhanced after revisions are made to the questionnaires after the pilot testing.

External validity refers to the generalisability of results beyond the current study to the entire population. As previously noted there are three other regional professional accounting bodies in Canada, like ASCA, that deliver the CA program to Canadian accounting graduates. The professional accounting programs in these regions (and the university accounting programs in each region) have been accredited to deliver the CA program in Canada. Thus, the results found in this study are relevant and comparable to these other regions of Canada given the degree of similarity in accounting education, both at the university and professional levels, in Canada. In fact, given the likeness between the competency maps of the professional accounting bodies in Canada, Australia and the United States it is possible that the findings of this study may be transferable outside Canada.

Reliability will be measured by split-half reliability which is used when the survey has many similar questions (Cooper and Schindler, 2011). It should also be noted that the questionnaire results will be analyzed using the statistical data analysis software package SPSS (Statistical Package for the Social Sciences). SPSS is widely used in educational and management research (Muijs, 2004, p.85). Tests for validity and reliability (e.g. Cronbach's alpha) of the study's findings will also be conducted when the data is analyzed using SPSS.

Limitations

The study, in its current form, does have some potential limitations. For example, there is the possibility of a small response rate from both accounting graduates and employers. Likewise, there is a risk that the results obtained from accounting graduates and employers in Atlantic Canada cannot be extended to the other regions in Canada. While these items have been carefully considered in the design of the study, there is always the possibility that residual limitations still exist.

The other area that needs to be addressed in this section of the paper is that of biases. Nonresponse bias can occur when participants create a nonrepresentative sample by refusing to respond (Cooper and Schindler, 2011). For example, it is possible that accounting graduates might not have enough exposure to the accounting profession to adequately address the questions and thus not participate. Research has indicated that "better educated individuals and those more interested in the topic participate in the surveys" (Cooper and Schindler, 2011, p. 246). Thus, given the target populations for this study the risk of nonresponse bias should be low.

Response bias occurs when participates respond "in such a way as to unconsciously or consciously misrepresent their actual behaviours, attitudes, preferences, motivations, or intentions" (Cooper and Schindler, 2011, p. 248). When participants do this to be perceived as more socially acceptable it is referred to as social desirably bias (Bryman and Bell, 2007). Given the target respondents and their professional code of conduct (e.g. integrity, honesty), it is hoped that participants will respond truthfully given the topic is about the education of CAs.

Conclusion

The current study will provide a broader understanding of the skill set (particularly the emotional intelligence skills) valued by accounting employers and accounting graduates. Historically, the accounting field has always attracted bright students (Bay and McKeage, 2006). However, given the growing recognition of the value of emotional skills, it is argued that being "intelligent" in the traditional sense may not be enough for accounting students today (Akers and Porter, 2003; Bay and McKeage, 2006). Hence, the study is important to accounting graduates, accounting educators and accounting employers. Also, as this study will be the first investigation of emotional intelligence in accounting education from the perspective of the neo-correspondence theory, it is anticipated that new population attributes may be discovered. Overall, this research has important meaning in the professional accounting workplace and in the university accounting classroom.

The hypotheses for the descriptive study will be tested deductively with quantitative research techniques. This approach is consistent with prior research done in the areas of nontechnical skills and emotional intelligence skills in accounting education. Finally, the research design discussed is this paper is consistent with the positivist world view identified during the philosophical investigation of the research project. Thus, there is an appropriate matching between conceptualisation, philosophical perspective and methodology for the study.

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Appendix A: Draft Surveys

DRAFT No. 5
Pre-Pilot

Accounting Graduate Survey

This questionnaire is designed to determine the attitudes of accounting graduates towards the nontechnical and technical skills for accounting graduates in the accounting workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10 minutes to complete. Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Section 1: In this three-part section you will be asked a number of questions about nontechnical and technical skills areas. On the basis of your experience please select the appropriate box.

Part A. Indicate how important or not you believe each skill area is in the accounting workplace.

Skill Area	Very unimportant	Unimportant	Neutral	Important	Very Important
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)	○	○	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○	○	○
6. Service (anticipating, recognizing and meeting client needs)	○	○	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○	○	○

9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					
17. Conflict Management (negotiating and resolving disagreements)					

18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					
20. Oral Communication (effective listening, understanding, speaking)					
21. Written Communication (writing with clarity and precision)					
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)					
23. Management Accounting Expertise (budgeting, costing, performance measurement)					
24. Taxation Expertise (personal and corporate tax preparation)					
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)					

26. Finance Expertise (financial analysis and planning)					
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28. Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					
30. Integrative Thinking (critical thinking of many factors when solving a problem)					
	Nontechnical skills not as important as technical skills	**Nontechnical skills equally important to technical skills**	**Nontechnical skills more important than technical skills**		
31. Overall how would you rate the importance, in the accounting workplace, of nontechnical skills					

Part B. Indicate the extent to which each skill area was developed as part of your university accounting program.

Skill Area	Poor	Fair	Good	Very good	Excellent
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self- worth and capabilities)	○	○	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○	○	○
6. Service (anticipating, recognizing and meeting client needs)	○	○	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○

10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					
17. Conflict Management (negotiating and resolving disagreements)					
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					
20. Oral Communication (effective listening, understanding, speaking)					

21. Written Communication (writing with clarity and precision)	○	○	○	○	○
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting	○	○	○	○	○
23. Management Accounting Expertise (budgeting, costing, performance measurement)	○	○	○	○	○
24. Taxation Expertise (personal and corporate tax preparation)	○	○	○	○	○
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)	○	○	○	○	○
26. Finance Expertise (financial analysis and planning)	○	○	○	○	○
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
28. Information Technology Expertise (proficiency in the latest information technology sources)	○	○	○	○	○
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)	○	○	○	○	○

30. Integrative Thinking (critical thinking of many factors when solving a problem)	○	○	○	○	○

Part C. <u>Indicate where you believe university accounting graduatesshould primarily develop each skill area.</u>

Skill Area	University Accounting Program	Professional Accounting Program (e.g. ASCA)	Workplace/Work Experience
Nontechnical Skills			
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○
3. Self-Confidence (sureness about one's self- worth and capabilities)	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○
6. Service (anticipating, recognizing and meeting client needs)	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○

10. Achievement (striving to improve or meet a standard of excellence**)**			
11. Initiative (readiness to act and seize opportunities)			
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)			
13.Inspiration (inspiring and guiding people)			
14. Influence (using effective tactics of persuasion)			
15. Developing Others (encouraging others' abilities through feedback and guidance)			
16. Change Catalyst (initiating or managing change)			
17. Conflict Management (negotiating and resolving disagreements)			
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)			
19. Building Bonds (cultivating and maintaining a web of relationships)			
20. Oral Communication (effective listening, understanding, speaking)			
21. Written Communication (writing with clarity and precision)			
Technical Skills			

22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)			
23. Management Accounting Expertise (budgeting, costing, performance measurement)			
24. Taxation Expertise (personal and corporate tax preparation)			
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)			
26. Finance Expertise (financial analysis and planning)			
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)			
28. Information Technology Expertise (proficiency in the latest information technology sources)			
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)			
30. Integrative Thinking (critical thinking of many factors when solving a problem)			

Section 2: The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

1. Gender: ☐Male ☐Female

2. Years since university graduation

☐ 1 year ☐ 2 years

☐ 3 years ☐ more than 3 years

3. ASCA program start date

☐ 2013

☐ 2012

☐ 2011 or earlier

4. Location: ☐Nova Scotia ☐Prince Edward Island ☐Bermuda

☐ New Brunswick ☐Newfoundland & Labrador

5. University Degree ☐Business/ Commerce ☐Business/Commerce Co-op

☐ Arts ☐Science ☐Other

6. Type of Approved CA Training Office you work in

large firm	☐
medium sized firm	☐
small firm	☐
industry	☐
government	☐

DRAFT No. 5
Pre-Pilot

Accounting Employer Survey

This questionnaire is designed to determine the attitudes of accounting employers towards the nontechnical and technical skills for accounting graduates in the accounting workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10 minutes to complete. Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

If you are completing the hard copy version of this questionnaire please mail the completed form in the self-addressed postage paid envelope which is provided.

Thank-you for your co-operation and time.

Section 1: In this three-part section you will be asked a number of questions about nontechnical and technical skills areas. On the basis of your experience please select the appropriate box.

Part A. Indicate how important or not you believe each skill area is in the accounting workplace.

Skill Area	Very unimportant	Unimportant	Neutral	Important	Very Important
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)	○	○	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○	○	○
6. Service (Anticipating, recognizing and meeting client needs)	○	○	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○	○	○

9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					
17. Conflict Management (negotiating and resolving disagreements)					
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					

20. Oral Communication (effective listening, understanding, speaking)					
21. Written Communication (writing with clarity and precision)					
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)					
23. Management Accounting Expertise (budgeting, costing, performance measurement)					
24. Taxation Expertise (personal and corporate tax preparation)					
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)					
26. Finance Expertise (financial analysis and planning)					
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28.Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					

30. Integrative Thinking (critical thinking of many factors when solving a problem)	○	○	○	○	○
	Nontechnical skills not as important as technical skills	**Nontechnical skills equally important to technical skills**	**Nontechnical skills more important than technical skills**		
31. Overall how would you rate the importance, in the accounting workplace, of nontechnical skills compared to technical skills?	○	○	○		

Part B. Indicate the extent to which each skill area is developed in the recent university accounting graduates your organization has hired.

Skill Area	Poor	Fair	Good	Very good	Excellent
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)		○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)		○	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)		○	○	○	○
4. Empathy (sensing others' feelings and perspective)		○	○	○	○
5.Organizational Awareness (the ability to read social and political networks in an organization)		○	○	○	○

6. Service (anticipating, recognizing and meeting client needs)		○	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)		○	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)		○	○	○	○
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)		○	○	○	○
10. Achievement (striving to improve or meet a standard of excellence)		○	○	○	○
11. Initiative (readiness to act and seize opportunities)		○	○	○	○
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)		○	○	○	○
13.Inspiration (inspiring and guiding people)		○	○	○	○
14. Influence (using effective tactics of persuasion)		○	○	○	○
15. Developing Others (encouraging others' abilities through feedback and guidance)		○	○	○	○
16. Change Catalyst (initiating or managing change)		○	○	○	○

17. Conflict Management (negotiating and resolving disagreements)		○	○	○	○
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)		○	○	○	○
19. Building Bonds (cultivating and maintaining a web of relationships)		○	○	○	○
20. Oral Communication (effective listening, understanding, speaking)		○	○	○	○
21. Written Communication (writing with clarity and precision)		○	○	○	○
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)		○	○	○	○
23.Management Accounting Expertise (budgeting, costing, performance measurement)		○	○	○	○

Skill Area	Poor	Fair	Good	Very good	Excellent
24. Taxation Expertise (personal and corporate tax preparation)	○	○	○	○	○
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)	○	○	○	○	○
26. Finance Expertise (financial analysis and planning)	○	○	○	○	○
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
28. Information Technology Expertise (proficiency in the latest information technology sources)	○	○	○	○	○
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)	○	○	○	○	○
30. Integrative Thinking (critical thinking of many factors when solving a problem)	○	○	○	○	○

Part C. Indicate where you believe that university accounting graduates should primarily develop each skill area.

Skill Area	University Accounting Program	Professional Accounting Program (e.g. ASCA)	Workplace/Work Experience
Nontechnical Skills			
1. Emotional Self-Awareness (recognizing one's emotions and their effects)			
2. Accurate Self-Assessment (knowing one's strengths and limits)			
3. Self-Confidence (sureness about one's self-worth and capabilities)			
4. Empathy (sensing others' feelings and perspective)			
5. Organizational Awareness (the ability to read social and political networks in an organization)			
6. Service (anticipating, recognizing and meeting client needs)			
7. Self-Control (keeping disruptive emotions and impulses under control)			
8. Transparency (displaying honesty, integrity and trustworthiness)			
9.Adaptablity (flexibility in adapting to changing situations or overcoming obstacles)			

10. Achievement (striving to improve or meet a standard of excellence)			
11. Initiative (readiness to act and seize opportunities)			
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)			
13.Inspiration (inspiring and guiding people)			
14. Influence (using effective tactics of persuasion)			
15. Developing Others (encouraging others' abilities through feedback and guidance)			
16. Change Catalyst (initiating or managing change)			
17. Conflict Management (Negotiating and resolving disagreements)			
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)			
19. Building Bonds (cultivating and maintaining a web of relationships)			
20. Oral Communication (effective listening, understanding, speaking)			
21. Written Communication (writing with clarity and precision)			
Technical Skills			
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)			

23.Management Accounting Expertise (budgeting, costing, performance measurement)			
24. Taxation Expertise (personal and corporate tax preparation)			
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)			
26. Finance Expertise (financial analysis and planning)			
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)			
28.Information Technology Expertise (proficiency in the latest information technology sources)			
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)			
30. Integrative Thinking (critical thinking of many factors when solving a problem)			

Section 2: The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

1. Your Position:

☐ Partner
☐ Senior manager
☐ Manager
☐ CFO/Controller
☐ Other

2. Your Location:

☐ Nova Scotia ☐ Prince Edward Island

☐ New Brunswick ☐ Newfoundland & Labrador

3. Type of Approved CA Training Office you work in

large firm	☐
medium sized firm	☐
small firm	☐
industry	☐
government	☐

4. Approximate number of articling CA students in your office this year

☐Less than 3 ☐4-7 ☐more than

5. Area of work specialization

☐Financial Accounting
☐Management Accounting
☐Assurance
☐Tax
☐Insolvency
☐Other

Appendix B: Summary of Skills Areas

Skills Areas in Questionnaires

Skills Area	Key Studies
Nontechnical Skills	
1. Emotional Self-Awareness	Goleman *et al.*, 2002; Daff *et al.*, 2012.
2. Accurate Self-Assessment	Goleman *et al.*, 2002; Daff *et al.*, 2012.
3. Self-Confidence	Goleman *et al.*, 2002; Daff *et al.*, 2012.
4. Empathy	Goleman *et al.*, 2002; Daff *et al.*, 2012.
5. Organizational Awareness	Goleman *et al.*, 2002; Daff *et al.*, 2012.
6. Service	Goleman *et al.*, 2002; Daff *et al.*, 2012.
7. Self-Control	Goleman *et al.*, 2002; Daff *et al.*, 2012.
8. Transparency	Goleman *et al.*, 2002; Daff *et al.*, 2012.
9. Adaptability	Goleman *et al.*, 2002; Daff *et al.*, 2012.
10. Achievement	Goleman *et al.*, 2002; Daff *et al.*, 2012.
11. Initiative	Goleman *et al.*, 2002; Daff *et al.*, 2012.
12. Optimism	Goleman *et al.*, 2002; Daff *et al.*, 2012.
13.Inspiration	Goleman *et al.*, 2002; Daff *et al.*, 2012.
14. Influence	Goleman *et al.*, 2002; Daff *et al.*, 2012.
15. Developing Others	Goleman *et al.*, 2002; Daff *et al.*, 2012.
16. Change Catalyst	Goleman *et al.*, 2002; Daff *et al.*, 2012.
17. Conflict Management	Goleman *et al.*, 2002; Daff *et al.*, 2012.
18. Teamwork and Collaboration	Goleman *et al.*, 2002; Daff *et al.*, 2012.
19. Building Bonds	Goleman *et al.*, 2002; Daff *et al.*, 2012.
20. Oral Communication 21. Written Communication	Andrews and Koester, 1979; Andrews and Sigband, 1984; Estes, 1979; Gingras, 1987; Hassall *et al.*, 2005; Kavanagh and Drennan, 2008; Novin *et al.*, 1990; Zaid and Abraham, 1994.
Technical Skills	
22. Financial Accounting Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
23. Management Accounting Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
24. Taxation Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
25. Audit and Assurance Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
246 Finance Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
27. Strategy and Governance Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
28. Information Technology Expertise	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
29. Analytical Skills	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.
30. Integrative Thinking	Albrecht and Sack, 2000; AICPA, 2012; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005.

PAPER 3:
Preliminary Findings

Should emotional intelligence be developed in university accounting programs? Survey operationalisation and preliminary data from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants.

Research-in-Progress

Abstract

This paper discusses the survey operationalisation and preliminary data from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs develop the emotional intelligence (EI) skills an accounting graduate needs. Emotional intelligence is the effective awareness, control and management of one's own emotions, and those of other people. Theories of emotional intelligence assert that EI is more important than cognitive ability or technical expertise in predicting managerial success - even in the accounting field. As a result there has been considerable debate about the need for accounting graduates to develop EI skills in their university accounting programs so they are better prepared for a career in the accounting profession. This study uses the theoretical framework of the neo-correspondence theory, which emphasizes the connection between higher education student experience and the workplace, to investigate the attitudes of accounting graduates and accounting employers. This paper provides an overview of the research design, survey development, piloting process and preliminary data from the study.

Keywords: accounting education, emotional intelligence, non-technical skills, piloting

Introduction

This paper discusses the survey operationalisation and preliminary data from an investigation of graduate and employer attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs develop the emotional intelligence (EI) skills an accounting graduate needs.

During the last 35 years there have been many studies (AAA, 1986; Albrecht and Sack, 2000; Carr *et al.*, 2006*;* De Lange *et al*., 2006; Deppe *et al*., 1991; Estes, 1979; French and Coppage, 1999; Hancock *et al.*, 2009; Kavanagh and Drennan, 2008; McPhail, 2004; Pan and Perera, 2012; Richardson, 2005; Siegel and Sorensen, 1994; Usoff and Feldmann, 1998) regarding the desired skills for accounting students. While the professional accountant's role comprises both technical and nontechnical skills, these studies concluded that nontechnical skills (e.g. communication, leadership, team work) are extremely important in the accounting profession and should be integrated more into university accounting programs.

Since 2002, most of the research on the nontechnical skills of accounting students has specifically focused on emotional intelligence skills (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al*., 2010). The concept of EI was first conceptualized by Salovey and Mayer (1990) as a form of social intelligence "that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions"(p. 189). Daniel Goleman (1995; 1998; 2000) built on the concepts of Salovey and Mayer and broadened their narrow concept of EI to include four constructs: self-awareness, self-management, social awareness and relationship management. These four EI constructs each contain a set of emotional competencies (with a total of 19 competencies across the four constructs).

Goleman was the first to extend the concept of EI to the business world and his research has concluded that "truly effective leaders are distinguished by a high degree of emotional intelligence"(1998, p.82). More specific research about leadership in the accounting profession has found that the most successful accountants are both technically and emotionally competent (Akers and Porter, 2003; Goleman *et al.*, 2002; Kermis and Kermis, 2010; Turner, 2004). Given Goleman's work in a business context, and specifically the accounting field, this conceptualization of EI underlies the current study. It is noted that most of Goleman's work does focus on mid-to-late career professionals and as such there is opportunity to investigate the value of EI for entry-level accounting graduates.

In the last decade, professional accountants have seen "a positive paradigm shift within the profession that increases the importance given to people skills and to put these skills on a level with technical skills"(Foley, 2007, p. 52). Technical expertise is now viewed as baseline in the accounting profession while emotional intelligence is seen as instrumental to career success (Goleman, 2000; Smigla and Pastoria, 2000). Universities are regularly being criticized for producing accounting graduates who are too theoretical and not "work ready" (Howieson *et al.*, 2010; Siegel *et al.*, 2010). Consequently, while many researchers have concluded that there is a gap between the skills accounting students develop in university and what accounting employers value, there has not been a specific focus on a potential emotional intelligence gap. Also, many of the existing studies have focused on accounting students and not recent accounting graduates.

The neo-correspondence theory asserts that higher education institutions should consider employer expectations and align the curriculum accordingly (Gintis, 1971; Saunders and Machell, 2000). This theoretical framework provides the context for the investigation of whether university accounting programs develop the emotional intelligence skills that accounting graduates need for success as professional accountants. The literature reviewed conducted for the study revealed only one application of the neo-correspondence theory in an accounting education context (Pan and Perera, 2012) and this did not focus on the area of emotional intelligence.

The overall research question for the study is:

Graduate and employer attitudes on the skill set requirements for professional accountants: Should emotional intelligence be developed in university accounting programs?

The specific research questions for the study are:

1. What technical[1] and nontechnical[2] skills are viewed as important by accounting graduates in the accounting workplace?

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

The following specific hypotheses have been developed for testing based on the literature review:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

The paper will first review the research design, sampling strategy and questionnaire development for the study. The piloting plan will then be discussed which will include any resulting modifications to the surveys. Finally, the last sections of the paper provide an overview of the study's preliminary respondent profile and data and the next steps for the study.

Research Design

The current research is a descriptive study - "description of phenomena or characteristics associated with a subject population [the who, what, when, where and how of a topic]" (Cooper and Schindler, 2011, p.149). Descriptive research is used to study achievement, attitudes, behaviours, preferences, concerns, interests or other characteristics of a group of subjects (Gay *et al.*, 2006; McMillan and Schumacher, 2001).

Given that this study will be the first to use the neo-correspondence theory to examine emotional intelligence in an accounting education context, the study does have exploratory elements. Exploratory studies are an important way to discover "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, p.59). This type of research can be helpful when the understanding of the problem needs further clarification and definition. From this exploration further information on important variables might emerge and other hypotheses developed (Cooper and Schindler, 2011).

The surveys developed for this research study might be viewed as exploratory surveys. As defined by Easterby-Smith *et al.*, (2012), exploratory surveys "focus on identifying patterns within the data" (p.341). Thus, given the potential of various statistical methods to reveal relationships in the data, other hypotheses might emerge from the current study. Data analysis will be discussed later in the paper while in the next section the population and sample for the study will be reviewed.

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[1] Table 1 in this paper identifies the skills classified as technical.

[2] Table 2 in this paper identifies the skills classified as nontechnical which includes the 19 EI competencies.

Sampling Strategy

In Canada the Chartered Accounting (CA) program is administered regionally (Western Canada, Ontario, Quebec and Atlantic Canada[3]) and nationally by the Canadian Institute of Chartered Accountants (CICA). The professional accounting program and university accounting curriculum in each Canadian region are similar as all CA students write the same nationally administered Uniform Final Evaluation (UFE).

The four regional CA professional education bodies must ensure that the university accounting programs in their region contain the prerequisite courses for the CA professional program which lead to completion of the UFE. Given this degree of standardization of accounting education in Canada, this study will use a quota sample in one of the Canadian regions. A quota sample reflects the main characteristics of the population but is not chosen randomly as the final selection is done by the researcher (Bryman and Bell, 2007).

The study will focus on Atlantic Canada (the four most eastern provinces in Canada: Newfoundland and Labrador, Nova Scotia, New Brunswick and Prince Edward Island) and Bermuda. Atlantic Canada has ten universities and the graduates of these schools who pursue the CA program are all students of the Atlantic School of Chartered Accountancy (ASCA - the regional body that delivers the professional CA program in Atlantic Canada and Bermuda).

ASCA is the smallest of the four regional CA professional education bodies in Canada and currently has approximately 5%[4] of the students completing the CA program in Canada. In order to complete the CA program in Canada a student must be employed by an approved CA training office. These offices are normally CA firms, government departments (e.g. Office of the Auditor General) and some approved companies in industry who have a considerable number of CAs on staff.

As of August 2013 there were 438 ASCA students and 110 approved CA employers (with 1-3 partners/managers per office who supervise accounting graduates) in Atlantic Canada and Bermuda. The quota sample for the study will consist of the ASCA students (accounting graduates) and the approved training offices (accounting employers) in Atlantic Canada and Bermuda (because of its inclusion in ASCA). ASCA has the most current and accurate database of both groups and has agreed to distribute both surveys on behalf of the researcher. The next section of the paper will review the development of the questionnaires for the study.

Questionnaire Development

Questionnaires were prepared in April 2013 (see Appendix A for pilot version) for both groups of survey respondents: accounting graduates and accounting employers. The questionnaires were based on the literature review and the findings from the key studies in the field. In particular, the questionnaires built on the work of Kavanagh and Drennan (2008) who adapted the survey used by Albrecht and Sack (2000) to an Australian context because it was validated previously in a large study in the United States.

In section one of both questionnaires, respondents were asked three main questions (parts A, B and C) about 30 different skill areas. The skill areas are divided between nontechnical and technical skills.

The technical skill area in the questionnaires are nine skills which are considered important in the accounting profession. These technical skills, listed in Table 1, have been identified in the competency frameworks of the major professional accounting bodies in Canada, Australia and the United States (AICPA, 2012; CICA, 2012; ICAA and CPA, 2009). They have also been identified and tested in some of the studies reviewed for this paper (Albrecht and Sack, 2000; Pan and Perera, 2012; Richardson, 2005).

[3] CA students in Bermuda complete the CA professional education program in Atlantic Canada.

[4] According to ASCA staff, in August 2013, the number of ASCA students is 438 while the number of students completing the CA program in Canada is approximately 9000.

Table 1: Technical Skills in Surveys

Financial Accounting (interpretation and application of relevant accounting standards)
Management Accounting (budgeting, costing, performance measurement)
Taxation (personal and corporate tax preparation)
Audit and Assurance (financial statement auditing and other assurance services)
Finance (financial analysis and planning)
Strategy and Governance (role of corporate governance within an organization, strategy formulation)
Information Technology (proficiency in the latest information technology sources)
Analytical Skills (articulating and solving both complex and uncomplicated problems)
Integrative Thinking (critical thinking of many factors when solving a problem)

There are 21 nontechnical skills listed in the questionnaires and 19 of these are the emotional intelligence competencies identified by Goleman *et al.*, (2002) during the conceptualization of the study. The other two skills included in the nontechnical skills area of the questionnaires are oral and written communication skills. These communication skills were included because prior to 2002 the research around nontechnical skills in accounting education focused on communication (Aiken *et al.*, 1994; Andrews and Koester, 1979; Andrews and Sigband, 1984; Estes, 1979; Gingras, 1987; Hassall *et al.*, 2005; Montano *et al.*, 2001; Novin *et al.*, 1990; Rebele, 1985; Zaid and Abraham, 1994). Table 2 lists the nontechnical skills included in the surveys.

Table 2: Nontechnical Skills (including EI skills*) in Surveys

Oral Communication (effective listening, understanding, speaking)
Written Communication (writing with clarity and precision)
***Emotional Self-Awareness** (recognizing one's emotions and their effects)
***Accurate Self-Assessment** (knowing one's strengths and limits)
***Self-Confidence** (sureness about one's self-worth and capabilities)
***Empathy** (sensing others' feelings and perspective)
***Organizational Awareness** (the ability to read social and political networks in an organization)
***Service** (anticipating, recognizing and meeting client needs)
***Self-Control** (keeping disruptive emotions and impulses under control)
***Transparency** (displaying honesty, integrity and trustworthiness)
***Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)
***Achievement** (striving to improve or meet a standard of excellence)
***Initiative** (readiness to act and seize opportunities)
***Optimism** (persistence in pursuing goals despite obstacles and set-backs)
***Inspiration** (inspiring and guiding people)
***Influence** (using effective tactics of persuasion)
***Developing Others** (encouraging others' abilities through feedback and guidance)
***Change Catalyst** (initiating or managing change)
***Conflict Management** (negotiating and resolving disagreements)
***Teamwork and Collaboration** (cooperatively working with others towards a shared goal)
***Building Bonds** (cultivating and maintaining a web of relationships)

Section two of both questionnaires contain the attribute variables and they vary slightly between the two groups of respondents. It was anticipated that the responses to the three questions in section one about the various skills areas would vary according to these attributes. Thus, there is a potential opportunity to offer new insights with respect to the population characteristics in keeping with descriptive research design. Appendix B contains a table summarizing the three main survey questions and how they are directly connected to the research questions and hypotheses of the study. This table also indicates which studies, examined as part of the literature review, are significant to these question areas.

In June 2013 the two questionnaires were converted to an online format using a web-hosted survey program. The survey program SelectSurvey.NET was used because of its ease of application and functionality. This survey program is used by the Faculty of Business Administration at Memorial University and is supported by technical staff who are accessible to the researcher. It should be noted that in the online surveys the respondents were not identified and the survey responses were anonymous. The anonymity was considered an important aspect of the surveys because respondents were asked questions about skills and the workplace. It was planned that, in addition to an online version, a hard copy of the employer questionnaire would also be available for distribution. This option was considered given that some members of the employer respondent group might not be as computer literate as the accounting graduate sample.

After reviewing the questionnaires, the next step was to establish the piloting plan for the study which is discussed in the next section of the paper. This section of the paper will also discuss any survey modifications that resulted from the piloting feedback.

Piloting Plan and Survey Modifications

As noted by Oppenheim (1992), “every aspect of a survey has to be tried out beforehand to make sure it works as intended” (p.47). Pilot testing is important because questions can be refined if necessary and overall the researcher can ensure that the respondents had no difficulties in answering the questions (Saunders *et al.*, 2009). Some of the objectives of pilot testing are to assess questionnaire length, ease of completion, and overall effectiveness of the survey administration (Sarantakos, 2005; Smith, 2011).

Cooper and Schindler (2011) advise that the pilot group should range from 25-100 subjects. However, it is noted that "in very small populations or special applications, pilot testing runs the risk of exhausting the supply of respondents" (Cooper and Schindler, 2011, p.89). The researcher followed the guidance of Fink (2003) who suggests that the minimum number in a pilot test should be ten. The two questionnaires for the current study were pilot tested in July 2013. Four accounting graduates and four accounting employers were selected for the pilot test by the researcher. It was also felt that piloting the surveys to research active academics in the accounting area would be beneficial. Thus, two academics were also part of the pilot study for a total of ten pilot test respondents. The link to the online surveys were sent to the graduate and academic pilot test respondents. For the four employer pilot test respondents, two were sent the online survey and two were given the survey in hard copy format.

A protocol was developed for each group of pilot test respondents which is included in Appendix C. Many important issues can arise during the piloting stage and thus the intention of the protocol was to ensure that all problems were addressed. Many of the items identified in the pilot test protocols were based on the advice of Saunders *et al.* (2009) and Smith (2011).

Pilot test respondents were asked to keep notes on the items mentioned in the protocol and report back to the researcher with their feedback. Appendix D contains a summary of all the pilot test feedback. In terms of completion time no major problems were identified. The average time to complete the graduate survey was eight minutes and fifteen minutes for the employer survey. In terms of the understandability of items in the survey no significant concerns were identified. While some respondents questioned the meaning of some of the skills it was noted that respondents liked having a one line explanation for each skill area. There were no questions raised regarding terms such as "recent graduates" used in the employer survey.

In both questionnaires graduate and employer attitudes were assessed using a five point Likert scale. Likert scales are widely used to assess attitudes and the response categories range between two extreme points with various points in between (Easterby-Smith *et al.*, 1991; Sarantakos, 2005). Pilot test respondents were asked to assess the appropriateness of the scales for each question. Again no major issues were identified. One of the academic

respondents questioned whether a seven point scale would be appropriate. This reviewer was comfortable with the five point scale once advised that this was common in similar studies in the research area.

Pilot test respondents were asked to note whether any of the items in the questionnaire made them feel uncomfortable or uneasy. This area was important given that respondents were asked several questions about their workplace and university training. No issues were identified in this regard. In contrast, both academic respondents and one of the employer respondents did have concerns with the ordering of items in the questionnaires. In the pilot version of the questionnaires, the skill areas were broken down into two categories and labeled as such - the 21 "nontechnical skills" first followed by the nine "technical skills". The feedback on this item was that the technical skills should go first in the questionnaires and that it was not necessary to label each group of skills. The researcher had questioned the ordering of the skills prior to the pilot, so this advice was taken and incorporated into the final version of the questionnaires.

One other comment about the skills, obtained during the piloting, was about bookkeeping skills. Pilot test respondents were asked if there were any missing items in the questionnaires. One of the employer respondents noted that bookkeeping skills are valuable and these are missing in all students their organization has hired. Albrect and Sack (2000) asked accounting employers about numerous skills areas including "accounting services" which they explained to mean bookkeeping functions like accounts receivable, accounts payable, and payroll. Kavanagh and Drennan (2008) included bookkeeping in the 47 skill areas they studied. Likewise, another key study for the current research project, Pan and Perera (2012), included "accounting system and process" in their skill list. Based on these studies and the piloting feedback, it was decided to include bookkeeping skills in the final version of the questionnaires bringing the total number of skills from 30 to 31.

In terms of survey layout none of the respondents raised any concerns and thought the general layout was good. The two employer respondents who were given the survey in hard copy indicated that an online version of the survey would be preferred. Given this feedback it was decided that for the live version of the survey a link to an online survey would be sent to accounting employers. If necessary a hard copy could always be sent to employers.

Pilot test respondents were also given the opportunity to provide other comments about the questionnaires. A few points were raised and edits were made to the questionnaires. For example, the academic reviewers noted that the word "perceptions" might be "softer" for respondents as opposed to "attitudes". Likewise, the academic reviewers thought that in the preamble to the questionnaires it should be noted that perceptions about "various" skills are being '"examined" instead of "determining" attitudes about nontechnical and technical skills. The academic reviewers thought that the questionnaires should not highlight the technical vs. nontechnical issue in the preamble as it might influence respondents. They also noted that the word "determine" implied a precise measurement whereas the word "examined" more accurately reflected the nature of the study. All of these changes were made in the final version of the surveys.

Another area that the pilot test respondents commented on was the use of the term "accounting workplace". Both the employer and academic respondents thought that this term might be restrictive and possibly confusing and suggested that it just become "workplace". This change was made in the final questionnaires. In the attribute variables section of both surveys, there is a question about the type of approved training office the respondent works in. The academic, employer and graduate pilot test respondents all thought that this question could be confusing because there was no explanation with respect to firm classification. It was thought that simply having large, medium and small firms as options would not provide respondents the clarity needed to correctly answer the question. After consultation with similar surveys in the CA profession, it was decided to proceed with national, regional and local firms with the differentiating factors being the geographic reach of the office across Canada.

The final area of feedback received from the piloting process was about the last skills question. All groups of pilot test respondents had concerns with question 3 which asked where accounting graduates should primarily develop each skill. In the pilot version of the questionnaires the respondents were having difficulties selecting between the three options (university accounting programs, ASCA or the workplace). The feedback on this question was that the question should focus exclusively on university accounting programs as that is the

purpose of the study. A revision was done of question three and in the final version of the questionnaires respondents were asked to evaluate the extent to which each skill area should be developed in university accounting programs.

In summary, the feedback from the pilot testing did result in some modifications to the questionnaires. This frequently happens after piloting according to Dillman (2007). The final version of both questionnaires (in the online format) can be found in Appendix E. The actual launch of the surveys will be discussed in the next section of the paper.

Survey Administration

The questionnaires to accounting graduates and employers were distributed electronically by ASCA with a link to complete the survey online. The survey results are accessible only to the researcher. In addition to distributing the surveys, ASCA sent reminders (on the direction of the researcher) to both populations to encourage participation.

Both surveys were launched on August 7, 2013. The accounting graduate survey was sent to 438 ASCA students and the accounting employers survey was sent to 110 approved CA training offices. The employer survey was sent to the ASCA contact in each office (who is responsible for student training) with the instructions to forward the email to the CAs in the office who supervise or manage ASCA students. It is possible that on average between 1-3 CAs per office had the opportunity to complete the survey. Given that the employer population number is not quite as defined as the graduate population, the reporting of the response rates has taken this into consideration.

After one week of the survey launch the response rate was 17% (n=74) for graduates. It is difficult to calculate a precise response rate for employers given that the actual number of potential respondents is unknown and could range from 110-330. The number of employer respondents after the first week of the survey launch was 25. It was anticipated that the employer responses might be slower than the graduate responses for a couple of reasons. Having the email with the survey link not go directly to every CA in an approved training office might be a factor. However, there is no database of every CA in all approved training offices. Thus, it was determined that the best way to reach these potential respondents was via ASCA's database of approved CA training offices. Another issue is that August is a popular vacation time and many employers might be out of the office. It was anticipated that the employer responses would improve as September approached. As the survey respondents were all anonymous it was not possible to target nonrespondents specifically. In the meantime the researcher sent emails to personal contacts in approved CA training offices to encourage survey completion.

The first survey reminder was sent to both groups on August 15. The graduate response rate increased to 34% (n-149) and the number of employer responses increased to 46[5]. The researcher did have contact with representatives from some of the approved training offices in response to the emails sent to personal contacts. Some of the offices noted that they chose to have one staff member complete the survey on behalf of the office. This was a surprising revelation at first and was not anticipated by the researcher. However, upon investigation and some anecdotal evidence, it does appear that some CA firms do centralize functions relating to new hires like recruitment and evaluation. Also, the preliminary employer respondent profile[6] would reveal that there were a large number of local firms who participated in the survey and those with less than 3 articling students thus suggesting many of the respondents were from small offices. Thus, it is very plausible that many of the 110 approved CA training offices could only be submitting one employer questionnaire. If more than one survey was submitted by an office that was acceptable as it would have been completed by a different respondent who was an "employer".

The second survey reminder was sent on August 29 and the graduate and employer samples were advised that the last date to complete the surveys was on September 15, 2013. The last reminder was sent on September 12. As of September 15, 2013 the graduate (n=199) response rate is 45.4 % and the number of employer respondents is 67. The response rates for the current study are consistent with the studies reviewed in the accounting education field. In surveys of accounting graduates, Jackling and Delange (2009) and Carr *et al.* (2006) reported

[5] Note as previously discussed a response rate for the employer survey cannot be precisely calculated.

[6] Table 4 in this paper provides the profile of the respondents to the employer survey.

response rates of 27% (n=174) and 26.4% (n=237) respectively. Kavanagh and Drennan (2008) and Howieson *et al*. (2010) had employer samples of 27 and 47 respectively while Pan and Perera (2012) had 106 responses from employers. Given that the response rate for employers could not be calculated as a percentage, the raw response figures were given for the comparative studies.

The preliminary respondent profile and data from the study will be analyzed and discussed in the next sections of the paper.

Preliminary Respondent Profile

The analysis of the questionnaire data commenced on August 18, 2013 using the Statistical Package for Social Sciences (SPSS V.21) with guidance Bryman and Cramer (2011). The analysis started on August 18 because the deadline for the submission of this paper was before the close date of the surveys. First, all variables were identified with the appropriate measure. The data set was then analyzed for missing or incorrect values. There were only a few missing values and these were left blank in the SPSS data set.

The data set for the accounting graduates as of August 18 reflects the responses of 152 individuals. The total number of graduate surveys completed by that date was actually 157. Five surveys were not usable because of extensive missing answers (if any of the 4 main questions about the skills areas were 75% incomplete). Table 3 below shows the summary of the percentages for the graduate attribute variables of gender, ASCA program start date, years since university graduation, type of university degree, work location, type of approved training office, co-op work term experience and general work experience.

Table 3: Attribute Variables - Accounting Graduates (n=152)

Gender	Male (43.4%)	Female (56.6%)	-	-	-	100%
ASCA Program Start Date	2013 (42.1%)	2012 (29.6%)	2011 or earlier (28.3%)	-	-	100%
Years since university graduation	0-1 years (55.3%)	2 years (25.0%	3 years (11.1%)	More than 3 years (8.6%)	-	100%
University Degree	Business/ Commerce (42.1%)	Business/ Commerce Co-op (50.0%)	Arts (2.0%)	Science (3.9%)	Other (2.0%)	100%
Work location	Bermuda (3.9%)	Newfoundland & Labrador (24.3%)	New Brunswick (20.3%)	Nova Scotia (41.4%)	Prince Edward Island (9.9%)	100%
Type of approved training office	National firm (52.6%)	Regional firm (3.3%)	Local firm (32.2%)	Industry (7.2%)	Government (4.6%)	100%
Amount of c0-op work term experience	None (46.7%)	1-4 months (7.9%)	5-8 months (13.2%)	9-12 months (30.3%)	More than 1 year (2.0%)	100%
Amount of work experience (excluding co-op work terms)	Less than 4 months (29.6%)	4-8 months (7.9%)	9-12 months (17.8%)	1-2 years (17.8%)	More than 2 years (27.0%)	100%

There were slightly more female respondents than male respondents in the accounting graduate survey so far. The gender balance among ASCA students[7] is approximately 50:50 so the preliminary sample is not that inconsistent with the population. The ASCA students surveyed are either just starting their programs or finishing their programs. There a few students in an intermediate type of stage if they have failed a module during their program. Thus, the reported data for ASCA program start date and years since university graduation are consistent with the ASCA student profile and program structure. Similarly most students that start the CA program have undergraduate business degrees (some are co-operative with work terms) and thus the preliminary results are reflective of this.

The actual breakdown of ASCA students by location is[8]:

Bermuda - 6%
Newfoundland & Labrador - 23%
New Brunswick - 28%
Nova Scotia - 36%
Prince Edward Island - 7%

The graduate survey respondents from each region are consistent with this breakdown. Likewise, the majority of approved CA training offices are either national or local firms, as there are a very small number of regional firms in Atlantic Canada. In terms of government offices that can train CA students, normally there are only the Auditor's General's Office and Comptroller General Offices in each province. And there are only a small number of industries in Atlantic Canada that have been approved to train CA students. This is a growing area of the CA professional training program.

The data set for the accounting employers as of August 18 reflects 50 responses (51 surveys were completed but one was not useable due to extensive missing answers). Table 4 below shows the summary of the percentages for the employer attribute variables of work location, type of approved training office, area of work specialization and number of articling students.

Table 4: Attribute Variables - Accounting Employers (n=50)

Position	Partner (14.0 %)	Senior manager (22.0%)	Manager (20.0%)	CFO/ Controller (2.0%)	Other (28.0%)	100%
Work location	Bermuda (4.0%)	Newfoundland & Labrador (22.0%)	New Brunswick (20.0%)	Nova Scotia (40.0%)	Prince Edward Island (14.0%)	100%
Type of approved training office	National firm (44.0%)	Regional firm (2.0%)	Local firm (38.0%)	Industry (14.0%)	Government (2.0%)	100%
Area of work specialization	Financial accounting (22.0%)	Management accounting (4.0%)	Audit/ Assurance (56.0%)	Insolvency (none)	Other (6.0%)	100%
Number of articling CA students in office	Less than 3 (38.0%)	4-7 (56.0%)	More than 7 (6.0%)	-	-	100%

The type of employer respondents in the survey were primarily in the partner, senior manager, manager and "other category". When the other category was included it was thought that this might apply to employer respondents in an approved training office other than a CA firm who might not hold the traditional firm title of a partner, senior manager or manager. It is possible

[7] Provided by ASCA staff in August 2013.

[8] Provided by ASCA staff in August 2013.

that the "other category" captured those administrative professionals in the firm who are responsible for CA student training. The location of the employer survey respondents is consistent with the actual breakdown of approved CA training offices by location which is[9]:

Bermuda - 5%
Newfoundland & Labrador - 17%
New Brunswick - 23%
Nova Scotia - 44%
Prince Edward Island - 11%

Given that audit, assurance and financial accounting provide the foundation of the work performed by CA training offices, it is not surprising that the majority of respondents worked in these areas. The majority of respondents reporting having 4-7 articling students per office. This would likely reflect the national offices while the 38% reporting less than 3 articling students would be the small firms, industry and government approved training offices. It is not surprising that only 6% of respondents had more than 7 articling students in their office. Atlantic Canada is relatively small compared to central Canada (e.g. Ontario and Quebec) and even the national firms in this region are smaller relative to their counterparts in larger populated regions of Canada.

The next section of the paper will present the preliminary data for the three major questions in the surveys.

Preliminary Data

At this stage in the data analysis process frequencies and descriptives were performed on both data sets. Descriptive statistics are designed to provide an overview of the features of the sample (Easterby-Smith *et al.*, 1991). Appendix F presents the descriptives and frequencies for each of the 31 skill areas in each of the three survey questions for both questionnaires. In this section of the paper information from Appendix F will be highlighted in tabular format. It is noted that in all tables the nontechnical skills will be shaded and the emotional intelligence competencies will be shaded and underlined.

The first question in the questionnaires was the same for graduates and employers. Both groups were asked how important or not each of the 31 skill areas are in the workplace. The response options on the scale went from: very unimportant (1), unimportant (2), neutral (3), important (4) and very important (5). The numbers in brackets after each option represents the coding that was used for SPSS purposes.

Table 5 presents the most highly rated skills by employers and graduates according to mean scores. For employers three of their top five skills were technical and two were nontechnical. Of the two nontechnical skills, one (transparency) is one of the 19 emotional intelligence competencies. For graduates four of their top rated skills were technical and one was nontechnical. It is interesting to note that four skills rated in their top five by both employers and graduates were the same.

Table 5. The most important rated skill area is in the workplace.

Employers (n=152)	Graduates (n=50)
1. Financial Accounting (4.74)	1. Analytical Skills (4.61)
2. Analytical Skills (4.64)	2. Financial Accounting (4.59)
3. Integrative Thinking (4.64)	3. Audit & Assurance (4.55)
4. Oral Communication (4.60)	4. Integrative Thinking (4.54)
5. Transparency (4.60)	5. Oral Communication (4.53)

Table 6 presents the least important rated skills for the workplace as perceived by employers and graduates according to mean scores. For employers four of their five least important rated skills were nontechnical and one was technical. All of the four nontechnical skills were

[9] Provided by ASCA staff in August 2013.

emotional intelligence competencies. Conversely, for graduates three of their five least important rated skills were technical and two were nontechnical. It is interesting to note that three skills (e.g. change catalyst, strategy and governance and influence) were rated in the bottom five by both employers and graduates. It should be noted that although these skills were rated the lowest by employers and graduates the mean scores were still between 3.68 - 3.86 which is "important" to "very important" in terms of the scale. Discussion about these findings will take place in Paper 4.

Table 6. The least important rated skill area is in the workplace.

Employers (n=152)	Graduates (n=50)
1. Change Catalyst (3.68)	1. Finance (3.71)
2.Strategy & Governance (3.72)	2. Strategy & Governance (3.72)
3. Conflict Management (3.78)	3. Management Accounting (3.73)
4. Inspiration (3.82)	4. Influence (3.75)
5. Influence (3.82)	5. Change Catalyst (3.86)

After employers and graduates evaluated the importance of each skill area in the workplace there was one stand alone question (labeled as question 2 in the online surveys) which asked - *overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills*. Table 7 presents the results to this question by graduates and employers. To date there is a remarkable consistency between the employer and graduate responses to this question. Over 90% of both groups reported that nontechnical skills were equally as important (if not more important) than technical skills in the workplace.

Table 7. The importance of nontechnical skills compared to technical skills

	Employers (n=152)	Graduates (n=50)
Nontechnical skills not as important as technical skills	8.0%	8.6%
Nontechnical skills equally important as technical skills	74.0%	72.4%
Nontechnical skills are more important as technical skills	18.0%	19.1%

The next question in the questionnaires differed slightly for graduates and employers. Employers were asked the extent to which each skill area was developed in the recent university accounting gradates hired by their organization. Graduates were asked the extent to which each skill area was developed as part of their university accounting program. The response options on the scale were the same for employers and graduates and went from: poor (1), fair (2), good (3), very good (4) and excellent (5). The numbers in brackets after each option represents the coding that was used for SPSS. Table 8 presents the results.

Table 8. The most developed skill areas in accounting graduates

Employers (n=152)	Graduates (n=50)
1. Teamwork & Collaborations (3.60)	1. Financial Accounting (3.68)
2. Financial Accounting (3.36)	2. Teamwork & Collaborations (3.57)
3. Building Bonds (3.28)	3. Building Bonds (3.34)
4. Achievement (3.26)	4. Management Accounting (3.28)
5. Organizational Awareness (3.24)	5. Achievement (3.26)

Employers only identified one technical skill (financial accounting) in the top five skills they identified as being developed in accounting graduates. The remaining four skills were all emotional intelligence competencies. The results for graduates were very similar. Graduates reported the most developed skill in their university accounting program was financial accounting. Management accounting was also in their top five with the remaining three skills being the emotional intelligence competencies of teamwork and collaborations, building bonds and achievement. It is worthy to note that four skills rated as the most developed in the top five by both employers and graduates were the same.

Table 9 presents the least developed skill areas in accounting graduates according to mean scores reported by employers and graduates. For employers four of their five least developed skills in graduates were nontechnical and one was technical (strategy and governance). All of the four nontechnical skills were emotional intelligence competencies. For graduates four of their five least developed skills were nontechnical and one was technical (information technology). There was only one skill (change catalyst) overlap in employers and graduates attitudes on this item with respect to their lowest rated skills.

Table 9. The least developed skill areas in accounting graduates

Employers (n=152)	Graduates (n=50)
1. Strategy & Governance (2.28)	1. Emotional Self-Awareness (2.24)
2. Change Catalyst (2.34)	2. Empathy (2.30)
3. Conflict Management (2.34)	3. Service (2.31)
4. Accurate Self-Assessment (2.38)	4. Change Catalyst (2.38)
5. Influence (2.38)	5. Information Technology (2.41)

The last main question in both questionnaires was the same and it asked respondents the extent to which each skill area should be developed in university accounting programs. The response options on the scale were the same for employers and graduates: no development (1), some development (2), good development (3), very good development (4) and excellent development (5). The numbers in brackets after each option represents the coding that was used for SPSS purposes. Table 10 presents the highest ranked results for this question.

Table 10. The most rated skill areas for development in university accounting programs

Employers (n=152)	Graduates (n=50)
1. Written Communication (4.30)	1. Financial Accounting (4.45)
2. Oral Communication (4.24)	2. Audit & Assurance (4.25)
3. Financial Accounting (4.22)	3. Integrative Thinking (4.25)
4. Analytical Skills (4.22)	4. Analytical Skills (4.20)
5. Teamwork & Collaborations (4.16)	5. Oral Communication (4.17)

For employers four of their five most rated skills for development in university accounting programs were nontechnical and one of these was an emotional intelligence competency (teamwork and collaborations). The technical skill was financial accounting which was also rated as the highest in terms of importance in the workplace. For graduates all but one of their top rated skills for development in university accounting programs were technical and the one nontechnical skill was not an emotional intelligence competency. There were similarities in the top rated skills as three skill areas were in the top five for both employers and graduates.

Table 11 concludes the presentation of the preliminary data by displaying the least rated skills for development in university accounting programs as perceived by employers and graduates.

Table 11. The least rated skill areas for development in university accounting programs

Employers (n=152)	Graduates (n=50)
1. Change Catalyst (2.88)	1. Emotional Self-Awareness (3.28)
2. Empathy (2.92)	2. Empathy (3.28)
3. Influence (2.98)	3. Influence (3.30)
4. Inspiration (3.02)	4. Inspiration (3.32)
5. Emotional Self-Awareness (3.04)	5. Self-Control (3.38)
	Change Catalyst (3.38)

Employers and graduates had similar perceptions about the skills above as the five least ranked skills for development in university accounting programs are also the five lowest ranked skills by graduates. It is interesting to note that all of these skills are competencies of emotional intelligence. Also, there were no mean scores for any of the skill areas (by either group of respondents) in the 1-2 range indicating "no development" or "some development".

Given that the surveys are not closed yet and the data sets are not complete, it is too early to evaluate the research questions and the existing hypotheses for the study. The next steps in data collection and data analysis will be discussed in the final section of the paper.

Next Steps and Concluding Remarks

The next steps for the study involve closing the surveys shortly after September 15 and updating the SPSS data set for the remaining respondent entries. Then a number of tests will be performed to assess the reliability and validity of the measures. Once that is completed the detailed data analysis will take place. Ultimately the research questions and hypotheses of the study will drive this analysis. In evaluating the options available, six key studies in the research area were reviewed with respect to data analysis and presentation of results.

Pan and Perera (2012) analyzed the responses from employers about the skill composition of undergraduate programs through the technique of frequency distribution. Cook *et al.* (2011) constructed a correlation matrix to analyze the attribute and EI variables in their study.

As noted earlier exploratory surveys/studies have the potential to develop other hypotheses and insights. Associations between two or more variables can be explored by calculating correlations and covariances. As noted by Field (2000) "calculating the covariance is a good way to assess whether two variables are related to each other"(p.73). Factor analyses could also be perfumed to determine whether there are clusters of large correlation coefficients between subsets of variables. Field (2000) notes that those variables could be "measuring aspects of the same underlying dimensions .....known as factors or latent variables" (p.423). Kavanagh and Drennan (2008) used factor extraction on the 47 skill variables in their study using principal component analysis with VARIMAX rotation (Field, 2000). The result was that eight factors or components emerged "which collectively explained 63.65% of the variance among the items" (p.288).

Montano *et al.* (2001) surveyed accounting employers in the UK about the importance and exhibited level of communication, interpersonal and problem-solving skills in recent accounting graduates. In addition to calculating means and ranking for the skill areas, they performed an integrated analysis of the two variables in a strategic map. "The strategic map is a graphic tool used in quality projects to prioritize actions thereby directing attention to those items that have a combination of high importance and low level" (Montano *et al.*, 2001, p. 307). Similarly Hassall *et al.* (2005) surveyed accounting employers in the UK and Spain about the importance and performance level of various skills. The researchers calculated a weighted importance indicator in order to identify the skills that require major development. Finally, Richardson (2005) calculated a "preparation gap" by taking the "difference in the mean scores of perceptions of skills that graduates actually bring to the job and perceptions of the preparation respondents would reasonably expect an entry-level management accountant to have" (p.60).

As noted there are many choices with respect to data analysis for the current study which will be investigated over the next two months. The responses rates for both surveys in the current study are consistent with published studies in the field, creating the potential for meaningful data analysis. The research results, upon further analysis, have the potential to be important to professional accounting programs and the accounting profession. This study will contribute to a broader understanding of the skill set (particularly the emotional intelligence skills) valued by accounting employers and accounting graduates.

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Appendix A:
Pilot Version of Surveys

Pilot

Accounting Graduate Survey

This questionnaire is designed to determine the attitudes of accounting graduates towards the nontechnical and technical skills for accounting graduates in the accounting workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10 minutes to complete. Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Thank-you for your co-operation and time.

Section 1: In this three-part section you will be asked a number of questions about nontechnical and technical skills areas. On the basis of your experience please select the appropriate box.

Part A. Indicate how important or not you believe each skill area is in the accounting workplace.

Skill Area Nontechnical Skills	Very unimportant	Unimportant	Neutral	Important	Very Important
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)	○	○	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○	○	○
6. Service (anticipating, recognizing and meeting client needs)	○	○	○	○	○

7. Self-Control (keeping disruptive emotions and impulses under control)					
8. Transparency (displaying honesty, integrity and trustworthiness)					
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					

15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					
17. Conflict Management (negotiating and resolving disagreements)					
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					
20. Oral Communication (effective listening, understanding, speaking)					
21. Written Communication (writing with clarity and precision)					
Technical Skills					

22. Financial Accounting Expertise (interpretation and application of relevant accounting					
23. Management Accounting Expertise (budgeting, costing, performance measurement)					
24. Taxation Expertise (personal and corporate tax preparation)					
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)					
26. Finance Expertise (financial analysis and planning)					
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28. Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					

30. Integrative Thinking (critical thinking of many factors when solving a problem)	○	○	○	○	○
		Non-technical skills not as important as technical skills	**Non-technical skills equally important to technical**	**Non-technical skills more important than technical skills**	
31. Overall how would you rate the importance, in the accounting workplace, of nontechnical skills compared to	○	○	○		

Part B. <u>Indicate the extent to which each skill area was developed as part of your university accounting program.</u>

Skill Area	**Poor**	**Fair**	**Good**	**Very good**	**Excellent**
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self- worth and capabilities)	○	○	○	○	○

4. Empathy (sensing others' feelings and perspective)					
5. Organizational Awareness (the ability to read social and political networks in an organization)					
6. Service (anticipating, recognizing and meeting client needs)					
7. Self-Control (keeping disruptive emotions and impulses under					
8. Transparency (displaying honesty, integrity and trustworthiness)					
9. Adaptability (flexibility in adapting to changing situations or					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and					

16. Change Catalyst (initiating or managing change)	○	○	○	○	○
17. Conflict Management (negotiating and resolving disagreements)	○	○	○	○	○
18. Teamwork and Collaboration (cooperatively working with others towards a shared	○	○	○	○	○
19. Building Bonds (cultivating and maintaining a web of relationships)	○	○	○	○	○
20. Oral Communication (effective listening, understanding,	○	○	○	○	○
21. Written Communication (writing with clarity and precision)	○	○	○	○	○
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of	○	○	○	○	○
23. Management Accounting Expertise (budgeting, costing, performance measurement)	○	○	○	○	○
24. Taxation Expertise (personal and corporate tax preparation)	○	○	○	○	○
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)	○	○	○	○	○
26.Finance Expertise (financial analysis and planning)	○	○	○	○	○

27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28. Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					
30. Integrative Thinking (critical thinking of many factors when solving a problem)					

Part C. Indicate where you believe university accounting graduates should primarily develop each skill area.

Skill Area	University Accounting Program	Professional Accounting Program (e.g. ASCA)	Workplace/Work Experience
Nontechnical Skills			
1. Emotional Self-Awareness (recognizing one's emotions and their effects)			

2. Accurate Self-Assessment (knowing one's strengths and limits)			
3. Self-Confidence (sureness about one's self- worth and capabilities)			
4. Empathy (sensing others' feelings and perspective)			
5. Organizational Awareness (the ability to read social and political networks in an organization)			
6. Service (anticipating, recognizing and meeting client needs)			
7. Self-Control (keeping disruptive emotions and impulses under control)			
8. Transparency (displaying honesty, integrity and trustworthiness)			
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)			
10. Achievement (striving to improve or meet a standard of excellence**)**			
11. Initiative (readiness to act and seize opportunities)			
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)			

13.Inspiration (inspiring and guiding people)			
14. Influence (using effective tactics of persuasion)			
15. Developing Others (encouraging others' abilities through feedback and guidance)			
16. Change Catalyst (initiating or managing change)			
17. Conflict Management (negotiating and resolving disagreements)			
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)			
19. Building Bonds (cultivating and maintaining a web of relationships)			
20. Oral Communication (effective listening, understanding, speaking)			
21. Written Communication (writing with clarity and precision)			
Technical Skills			

22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)			
23. Management Accounting Expertise (budgeting, costing, performance measurement)			
24. Taxation Expertise (personal and corporate tax preparation)			
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)			
26. Finance Expertise (financial analysis and planning)			
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)			
28. Information Technology Expertise (proficiency in the latest information technology sources)			
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)			
30. Integrative Thinking (critical thinking of many factors when solving a problem)			

Section 2: The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirelyanonymous.

1. Gender: ☐Male ☐Female

2.ASCA programstart date ☐ 2013

☐ 2012

☐ 2011 or earlier

3. Years since university graduation ☐ 1 year ☐ 2 years

☐ 3 years ☐ more than 3 years

4. University Degree ☐Business/ Commerce ☐Business/Commerce Co-op

☐ Arts ☐Science ☐Other

5. Work Location: ☐Nova Scotia ☐Prince Edward Island
☐Bermuda

☐ New Brunswick ☐Newfoundland & Labrador

6. Type of Approved CA Training Office you work in

large firm	☐
medium sized firm	☐
small firm	☐
industry	☐
government	☐

7. **Amount of work experience you had when you started working full time after university graduation with the approved training office:**

☐ less than 3 months ☐ 3-6 months ☐ 6 months – 1 year

☐ 1 year ☐ 2 years ☐ more than 2 years

Pilot

Accounting Employer Survey

This questionnaire is designed to determine the attitudes of accounting employers towards the nontechnical and technical skills for accounting graduates in the accounting workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10 minutes to complete. Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

If you are completing the hard copy version of this questionnaire please mail the completed form in the self-addressed postage paid envelope which is provided.

Thank-you for your co-operation and time.

Section 1: In this three-part section you will be asked a number of questions about nontechnical and technical skills areas. On the basis of your experience please select the appropriate box.

Part A. Indicate how important or not you believe each skill area is in the accounting workplace.

Skill Area	Very unimportant	Unimportant	Neutral	Important	Very Important
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)	○	○	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○	○	○
6. Service (Anticipating, recognizing and meeting client needs)	○	○	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○	○	○

9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative (readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					
17. Conflict Management (negotiating and resolving disagreements)					
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					

20. Oral Communication (effective listening, understanding, speaking)					
21. Written Communication (writing with clarity and precision)					
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)					
23. Management Accounting Expertise (budgeting, costing, performance measurement)					
24. Taxation Expertise (personal and corporate tax preparation)					
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)					
26. Finance Expertise (financial analysis and planning)					
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28.Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					

30. Integrative Thinking (critical thinking of many factors when solving a problem)	○	○	○	○	○
	Non-technical skills not as important as technical skills	**Non-technical skills equally important to technical skills**	**Non-technical skills more important than technical skills**		
31. Overall how would you rate the importance, in the accounting workplace, of nontechnical skills compared to technical skills?	○	○	○		

Part B. Indicate the extent to which each skill area is developed in the recent university accounting graduates your organization has hired.

Skill Area	Poor	Fair	Good	Very good	Excellent
Nontechnical Skills					
1. Emotional Self-Awareness (recognizing one's emotions and their effects)		○	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)		○	○	○	○
3. Self-Confidence (sureness about one's self-worth and		○	○	○	○
4. Empathy (sensing others' feelings and perspective)		○	○	○	○
5.Organizational Awareness (the ability to read social and political networks in an organization)		○	○	○	○

6. Service (anticipating, recognizing and meeting client needs)					
7. Self-Control (keeping disruptive emotions and impulses under control)					
8. Transparency (displaying honesty, integrity and trustworthiness)					
9. Adaptability (flexibility in adapting to changing situations or overcoming obstacles)					
10. Achievement (striving to improve or meet a standard of excellence)					
11. Initiative **(**readiness to act and seize opportunities)					
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)					
13.Inspiration (inspiring and guiding people)					
14. Influence (using effective tactics of persuasion)					
15. Developing Others (encouraging others' abilities through feedback and guidance)					
16. Change Catalyst (initiating or managing change)					

17. Conflict Management (negotiating and resolving disagreements)					
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)					
19. Building Bonds (cultivating and maintaining a web of relationships)					
20. Oral Communication (effective listening, understanding, speaking)					
21. Written Communication (writing with clarity and precision)					
Technical Skills					
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)					
23.Management Accounting Expertise (budgeting, costing, performance measurement)					

Skill Area	Poor	Fair	Good	Very good	Excellent
24. Taxation Expertise (personal and corporate tax preparation)					
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)					
26. Finance Expertise (financial analysis and planning)					
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)					
28. Information Technology Expertise (proficiency in the latest information technology sources)					
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)					
30. Integrative Thinking (critical thinking of many factors when solving a problem)					

Part C. Indicate where you believe that university accounting graduates should primarily develop each skill area.

Skill Area	University Accounting Program	Professional Accounting Program (e.g. ASCA)	Workplace/Work Experience
Nontechnical Skills			
1. Emotional Self-Awareness (recognizing one's emotions and their effects)	○	○	○
2. Accurate Self-Assessment (knowing one's strengths and limits)	○	○	○
3. Self-Confidence (sureness about one's self-worth and capabilities)	○	○	○
4. Empathy (sensing others' feelings and perspective)	○	○	○
5. Organizational Awareness (the ability to read social and political networks in an organization)	○	○	○
6. Service (anticipating, recognizing and meeting client needs)	○	○	○
7. Self-Control (keeping disruptive emotions and impulses under control)	○	○	○
8. Transparency (displaying honesty, integrity and trustworthiness)	○	○	○
9.Adaptablity (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○

10. Achievement (striving to improve or meet a standard of excellence)			
11. Initiative (readiness to act and seize opportunities)			
12. Optimism (persistence in pursuing goals despite obstacles and set-backs)			
13.Inspiration (inspiring and guiding people)			
14. Influence (using effective tactics of persuasion)			
15. Developing Others (encouraging others' abilities through feedback and guidance)			
16. Change Catalyst (initiating or managing change)			
17. Conflict Management (Negotiating and resolving disagreements)			
18. Teamwork and Collaboration (cooperatively working with others towards a shared goal)			
19. Building Bonds (cultivating and maintaining a web of relationships)			
20. Oral Communication (effective listening, understanding, speaking)			
21. Written Communication (writing with clarity and precision)			
Technical Skills			
22. Financial Accounting Expertise (interpretation and application of relevant accounting standards)			

23.Management Accounting Expertise (budgeting, costing, performance measurement)			
24. Taxation Expertise (personal and corporate tax preparation)			
25. Audit and Assurance Expertise (financial statement auditing and other assurance services)			
26. Finance Expertise (financial analysis and planning)			
27. Strategy and Governance Expertise (role of corporate governance within an organization, strategy formulation)			
28.Information Technology Expertise (proficiency in the latest information technology sources)			
29. Analytical Skills (articulating and solving both complex and uncomplicated problems)			
30. Integrative Thinking (critical thinking of many factors when solving a problem)			

Section 2: The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

1. Your Position:

☐ Partner
☐ Senior manager
☐ Manager
☐ CFO/Controller
☐ Other

2. Your Location:

☐ Nova Scotia ☐ Prince Edward Island

☐ New Brunswick ☐ Newfoundland & Labrador

3. Type of Approved CA Training Office you work in

large firm	☐
medium sized firm	☐
small firm	☐
industry	☐
government	☐

4. Approximate number of articling CA students in your office this year

☐Less than 3 ☐4-7 ☐more than

5. Area of work specialization

☐Financial Accounting
☐Management Accounting
☐Assurance
☐Tax
☐Insolvency
☐Other

Appendix B

Summary of Research Questions, Survey Questions, Hypotheses and Key Studies

Research Questions	Survey Questions	Hypotheses	Key Studies
1. What technical and nontechnical skills are viewed as important by accounting graduates and employers in the accounting workplace?	Section One (Part A): The importance or not of each skills area in the accounting workplace.	H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.	Albrecht and Sack, 2000; Bui and Porter, 2010; De Lange *et al.*, 2006; Jones and Abraham, 2008; Jackling and De Lange, 2009; Kavanagh and Drennan, 2008; Richardson, 2005; Stivers and Onifade, 2011; Wells *et al.*, 2009.
2. To what extent have these technical and nontechnical skills been developed in university accounting graduates?	Section One (Part B): The extent to which each skills area is developed in accounting graduates.	H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.	Hancock *et al.*, 2009; Jacking and De Lange, 2009; Richardson, 2005.
3. Where do accounting graduates and employers believe that accounting graduates should develop these technical and nontechnical skills?	Section One (Part A): The importance or not of each skills area in the accounting workplace. Section One (Part C): Where accounting graduates should primarily develop each skills area.	H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.	Kavanagh and Drennan, 2008; Pan and Perera, 2012.

Appendix C: Pilot Test Protocols

Pilot Test Protocol - Accounting Employers

Respondents: Five accounting employers (two via online survey and three via hard copy surveys).

Message to Pilot Test Respondents: This survey is designed to determine the attitudes of accounting employers towards the nontechnical and technical skills for accounting graduates in the accounting workplace. We appreciate your willingness to help us pilot test the survey and provide us some feedback on your understanding and perception of the survey items. Your individual responses in the pilot test phase are not going to be recorded or reported to anyone except those who are designing the survey.

Process:

1. The link to the online survey is emailed to two accounting employers. The hard copy survey is sent by fax to three accounting employers.

2. Respondents will be asked to keep notes on the questions asked in this document (items 3-10).

3. Respondents will be asked to time how long it takes them to complete the survey.

4. Respondents will be asked to assess how understandable each item on the survey was. Was the meaning of the question clear and straightforward? Did you have to read the item more than once to understand?

5. Respondents will asked to assess the scale used in each question. Did the scale provide an appropriate way to respond? Was the item written in a way that you could have answered it in more than one way?

6. Respondents will be asked to assess whether any of the items made them feel uncomfortable to answer.

7. Respondents will be asked to assess the ordering of items (e.g. nontechnical vs. technical skills).

8. Respondents will be asked to comment on whether they felt there were any items missing from the survey given the survey topic.

9. Respondents will be asked to assess the layout of the survey.

10. Respondents will be asked whether they have any other comments on the survey.

Pilot Test Protocol - Accounting Graduates

Respondents: Five accounting graduates.

Message to Pilot Test Respondents: This survey is designed to determine the attitudes of accounting graduates towards the nontechnical and technical skills for accounting graduates in the accounting workplace. We appreciate your willingness to help us pilot test the survey and provide us some feedback on your understanding and perception of the survey items. Your individual responses in the pilot test phase are not going to be recorded or reported to anyone except those who are designing the survey.

Process:

1. The link to the online survey is emailed to five accounting graduates.

2. Respondents will be asked to keep notes on the questions asked in this document (items 3-10).

3. Respondents will be asked to time how long it takes them to complete the survey.

4. Respondents will be asked to assess how understandable each item on the survey was. Was the meaning of the question clear and straightforward? Did you have to read the item more than once to understand?

5. Respondents will asked to assess the scale used in each question. Did the scale provide an appropriate way to respond? Was the item written in a way that you could have answered it in more than one way?

6. Respondents will be asked to assess whether any of the items made them feel uncomfortable to answer.

7. Respondents will be asked to assess the ordering of items (e.g. nontechnical vs. technical skills).

8. Respondents will be asked to comment on whether they felt there were any items missing from the survey given the survey topic.

9. Respondents will be asked to assess the layout of the survey.

10. Respondents will be asked whether they have any other comments on the survey.

Pilot Test Protocol - Academics

Respondents: Two research active accounting/finance academics.

Message to Pilot Test Respondents: This survey is designed to determine the attitudes of accounting employers and accounting graduates towards the nontechnical and technical skills for accounting graduates in the accounting workplace. We appreciate your willingness to help us pilot test the survey and provide us some feedback on your understanding and perception of the survey items. Your individual responses in the pilot test phase are not going to be recorded or reported to anyone except those who are designing the survey.

Process:

1. The link to the online surveys is emailed to the two academics.

2. Respondents will be asked to keep notes on the questions asked in this document (items 3-10).

3. Respondents will be asked to time how long it takes them to complete the survey.

4. Respondents will be asked to assess how understandable each item on the survey was. Was the meaning of the question clear and straightforward? Did you have to read the item more than once to understand?

5. Respondents will asked to assess the scale used in each question. Did the scale provide an appropriate way to respond? Was the item written in a way that you could have answered it in more than one way?

6. Respondents will be asked to assess whether any of the items made them feel uncomfortable to answer.

7. Respondents will be asked to assess the ordering of items (e.g. nontechnical vs. technical skills).

8. Respondents will be asked to comment on whether they felt there were any items missing from the survey given the survey topic.

9. Respondents will be asked to assess the layout of the survey.

10. Respondents will be asked whether they have any other comments on the survey.

Appendix D: Pilot Test Feedback

Pilot Test Results - Accounting Employers

Pilot Test Respondents - 4 accounting employers

Pilot Questions	**Respondent # 1 (online survey)**	**Respondent # 2 (online survey)**	**Respondent # 3 (paper survey)**	**Respondent # 4 (paper survey)**
Time to complete survey	13 minutes	20 minutes	15 minutes	15 minutes
Understandability of items	Understandable and clear (only question around meaning of Organizational Awareness skill).	Understandable and clear	Understandable and clear (glad there were one line explanations of the items in the survey).	Understandable and clear.
Scales	Scales were appropriate.	Scales were appropriate.	Scales were appropriate	Scales were appropriate.
Any items uncomfortable	No	No	No	No
Ordering of items	Technical skills should go first. Really liked that technical skills included items like strategy, integrative thinking and analytical skills.	Good	Good	Good
Items missing form survey	No	Bookkeeping skills are valuable and these are missing in all students we hire.	No	No
Layout of survey	Good	Good	Good - would prefer online survey.	Good - would prefer online survey.
Other comments	Clarify accounting workplace and types of CA firm. "Workplace" is clear and type of firm needs better differentiator.	Many boxes could have been checked in question 3 about where skills should be developed.	Many boxes could have been checked in question 3 about where skills should be developed.	Size of firm . Could be confusing as some national firms have small offices.

Pilot Test Results - Accounting Graduates

Pilot Test Respondents - 4 accounting graduates

Pilot Questions	**Respondent # 1**	**Respondent # 2**	**Respondent # 3**	**Respondent # 4**
Time to complete survey	7.5 minutes	7 minutes	8 minutes	10 minutes
Understandability of items	Understandable and clear (only question around clarity of the Building Bonds skill - does relationships mean personal and/or work)?	Understandable and clear (glad there were one line explanations of the items in the survey).	Understandable and clear (only question around clarity of the Emotional Self-Awareness skill- does this mean emotions in personal and/or work life)?	Understandable and clear.
Scales	Scales were appropriate.	Scales were appropriate.	Scales were appropriate.	Scales were appropriate but not sure what neutral meant.
Any items uncomfortable	No	No	No	No
Ordering of items	Good	Good	Good	Good
Items missing form survey	No	No	No	No
Layout of survey	Good	Good	Good	Good
Other comments	Many boxes could have been checked for question 3 about where skills should be developed although the question did say "primarily". This was difficult to answer.	Many boxes could have been checked for question 3 about where skills should be developed. Maybe question should just ask if you wished these skills were developed at university.	In last section how do you define work experience? Are summer jobs in the recreation area included or just business type jobs?	Not sure how size of firm is determined in question about where you work. Maybe as place of work just have firm, industry or government. Could be confusing as some national firms have small offices.

Pilot Test Results - Academics

Pilot Test Respondents - two academic researchers in accounting and finance area. Academics reviewed both accounting graduate and accounting employer surveys.

Pilot Questions	Respondent # 1	Respondent # 2
Time to complete survey	15 minutes	10 minutes
Understandability of items	Understandable and clear.	Understandable and clear.
Scales	Scales were appropriate. Would a 7 point scale be appropriate?	Scales were appropriate.
Any items uncomfortable	No	No
Ordering of items	Technical skills should go first.	Technical skills should go first.
Items missing form survey	No	No
Layout of survey	Good	Good
Other comments	Conceal purpose of study - in intro say "various skills" instead of "non-technical vs. technical". And instead of the word to "determine" attitudes "examine" or "analyze" is better as determine implies precisely measure. In question one should it say how important instead of how important or not? Not sure how size of firm is determined. Maybe as type of office you work in Section B just have firm, industry or government.	Perceptions is a less loaded word than attitudes. I think this survey is really assessing perceptions rather than attitudes. Many boxes could have been checked in question 3 about where skills should be developed. This could be confusing to employers and graduates. If the research project is about skills in university accounting programs you should be asking exclusively about the role of these skills in university - not the professional program or workplace. Don't like accounting workplace - just workplace is sufficient.

Appendix E: Final Online Version of Surveys

Page 1

Accounting Employer Survey

This questionnaire is designed to examine the perceptions of employers of accounting graduates about various skills in university accounting programs and the workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10-15 minutes to complete. The survey will time out after 60 minutes and responses will not be saved so please ensure you complete the survey within this time period.

Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Thank-you for your co-operation and time.

Peggy Coady, FCA
Memorial University of Newfoundland

Page 2

Section A

In this four-part section you will be asked a number of questions about various skills. On the basis of your experience please select the appropriate response.

1. **Indicate how important or not you believe each skill area is in the workplace.**

	Very unimportant	Unimportant	Neutral	Important	Very important
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance	○	○	○	○	○

within an organization, strategy formulation)					
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of	○	○	○	○	○

excellence)					
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

2. **Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?**

	Nontechnical skills not as important as technical skills	Nontechnical skills equally important to technical skills	Nontechnical skills more important than technical skills
Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?	○	○	○

3. **Indicate the extent to which each skill area is developed in the recent university accounting graduates your organization has hired.**

	Poor	Fair	Good	Very Good	Excellent
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○

2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and	○	○	○	○	○

political networks in an organization)					
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

4. **Indicate the extent to which you believe each skill area should be developed in university accounting programs.**

	No development	Some development	Good development	Very good development	Excellent development
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○

14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration**(inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict**					

Management (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

Section B

The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

5. **Your Position**

- ○ Partner
- ○ Senior Manager
- ○ Manager
- ○ CFO/Controller
- ○ Other

6. **Work Location:**

- ○ Bermuda
- ○ Newfoundland & Labrador
- ○ New Brunswick
- ○ Nova Scotia
- ○ Prince Edward Island

7. **Type of Approved CA Training Office you work in**

- ○ national firm (offices across Canada)
- ○ regional firm (offices in some Canadian provinces)
- ○ local firm (offices in just one province)
- ○ industry
- ○ government

8. **Area of work specialization**

- ○ Financial accounting
- ○ Management accounting
- ○ Audit/Assurance
- ○ Tax

- ○ Insolvency
- ○ Other

9. **Approximate number of articling CA students in your office this year**
   - ○ Less than 3
   - ○ 4 - 7
   - ○ more than 7

Page 1

Accounting Graduate Survey

This questionnaire is designed to examine the perceptions of accounting graduates about various skills in university accounting programs and the workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10-15 minutes to complete. The survey will time out after 60 minutes and responses will not be saved so please ensure you complete the survey within this time period.

Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Thank-you for your co-operation and time.

Peggy Coady, FCA
Memorial University of Newfoundland

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Section A

In this four-part section you will be asked a number of questions about various skills. On the basis of your experience please select the appropriate response.

1. **Indicate how important or not you believe each skill area is in the workplace.**

	Very unimportant	Unimportant	Neutral	Important	Very Important
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance	○	○	○	○	○

within an organization, strategy formulation)					
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of	○	○	○	○	○

excellence)					
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

2. **Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?**

	Nontechnical skills not as important as technical skills	Nontechnical skills equally important to technical skills	Nontechnical skills more important than technical skills
Overall how would you rate the importance, in the accounting workplace, of nontechnical skills compared to technical skills?	○	○	○

3. **Indicate the extent to which each skill area was developed as part of your university accounting program.**

	Poor	Fair	Good	Very Good	Excellent
1. **Financial Accounting**					

(interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○

17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

4. **Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program.**

	No Development	Some development	Good development	Very good development	Excellent development
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-**					

Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○

28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

Section B

The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

5. **1. Gender**
   - ○ Male
   - ○ Female

6. **ASCA program start date**
   - ○ 2013
   - ○ 2012
   - ○ 2011 or earlier

7. **Years since university graduation**
   - ○ 1 year
   - ○ 2 years
   - ○ 3 years
   - ○ more than 3 years

8. **University Degree**
   - ○ Business/ Commerce
   - ○ Business/Commerce Co-op
   - ○ Arts
   - ○ Science
   - ○ Other

9. **Work Location:**

- ○ Bermuda
- ○ Newfoundland & Labrador
- ○ New Brunswick
- ○ Nova Scotia
- ○ Prince Edward Island

10. **Type of Approved CA Training Office you work in**

- ○ national firm (offices across Canada)
- ○ regional firm (offices in some Canadian provinces)
- ○ local firm (offices in just one province)
- ○ industry
- ○ government

11. **Amount of co-op work term experience you had when you started the ASCA program.**

- ○ none
- ○ 1 - 4 months
- ○ 5 - 8 months
- ○ 9 -12 months
- ○ more than 1 year

12. **Amount of general work experience (excluding co-op work terms) you had when you started the ASCA program.**

- ☐ less than 4 months
- ☐ 4 - 8 months
- ☐ 9 - 12 months
- ☐ 1-2 years
- ☐ more than 2 years

Appendix F: Means and Frequencies

Accounting Employers - Mean Scores and Frequencies

Indicate how important or not each skill area is in the workplace.

Skill Area	Mean Score	Very unimportant (1)	Unimportant (2)	Neutral (3)	Important (4)	Very important (5)
1. Financial Accounting	4.74	None	None	2.0%	22.0%	76.0%
2.Bookkeeping	4.44	None	None	8.0%	40.0%	52.0%
3.Management Accounting	3.84	None	2.0%	28.0%	54.0%	16.0%
4.Taxation	4.12	2.0%	4.0%	16.0%	36.0%	42.0%
5.Audit and Assurance	4.40	None	2.0%	6.0%	42.0%	50.0%
6.Finance	4.04	None	2.0%	20.0%	50.0%	28.0%
7.Strategy and Governance	3.72	None	6.0%	32.0%	46.0%	16.0%
8.Information Technology	3.90	None	None	32.0%	46.0%	22.0%
9.Analytical Skills	4.64	None	None	2.0%	32.0%	66.0%
10.Integrative Thinking	4.64	None	None	None	36.0%	64.0%
11.Oral Communication	4.60	None	None	2.0%	36.0%	62.0%
12.Written Communication	4.34	None	2%	8.0%	44.0%	46.0%
13.Emotional Self-Awareness	3.92	None	None	22.0%	64.0%	14.0%
14.Accurate Self-Assessment	4.08	None	None	14.0%	64.0%	22.0%
15.Self-Confidence	4.10	None	None	12.0%	66.0%	22.0%
16.Empathy	3.88	None	2.0%	24.5%	57.1%	16.3%
17.Organizational Awareness	4.14	None	None	12.0%	62.0%	26.0%
18.Service	4.36	None	None	6.0%	52.0%	42.0%
19.Self-Control	4.40	None	None	8.0%	44.0%	48.0%
20.Transparency	4.60	None	None	2.0%	36.0%	62.0%
21.Adaptability	4.44	None	None	4.0%	48.0%	48.0%
22.Achievement	4.32	None	None	6.0%	56.0%	38.0%
23.Initiative	4.22	None	None	10.0%	58.0%	32.0%
24.Optimism	4.16	None	None	12.0%	60.0%	28.0%
25.Inspiration	3.82	None	None	38.0%	42.0%	20.0%
26.Influence	3.82	None	4.0%	28.0%	50.0%	18.0%
27.Developing Others	4.14	None	None	12.0%	62.0%	26.0%
28.Change Catalyst	3.68	2.0%	None	42.0%	40.0%	16.0%
29.Conflict Management	3.78	2.0%	None	38.0%	38.0%	22.0%
30.Teamwork and Collaboration	4.32	None	None	8.0%	52.0%	40.0%
31.Building Bonds	4.16	2.0%	None	10.0%	56.0%	32.0%

Accounting Employers - Mean Scores and Frequencies

Indicate the extent to which each skill area is developed in the recent university accounting graduates your organization has hired.

Skill Area	Mean Score	Poor (1)	Fair (2)	Good (3)	Very good (4)	Excellent (5)
1. Financial Accounting	3.36	None	20.0%	32.0%	40.0%	8.0%
2.Bookkeeping	2.64	12.0%	36.0%	30.0%	20.0%	2.0 %
3.Management Accounting	2.76	None	50.0%	28.0%	18.0%	4.0%
4.Taxation	2.54	14.0%	38.0%	28.0%	20.0%	None
5.Audit and Assurance	2.92	2.0%	26.0%	52.0%	18.0%	2.0%
6.Finance	2.61	10.2%	34.7%	40.8%	12.2%	2.0%
7.Strategy and Governance	2.28	24.0%	30.0%	40.0%	6.0%	None
8.Information Technology	2.98	14.0%	18.0%	28.0%	36.0%	4.0%
9.Analytical Skills	2.90	4.0%	32.0%	36.0%	26.0%	2.0%
10.Integrative Thinking	2.80	6.0%	28.0%	46.0%	20.0%	None
11.Oral Communication	3.04	4.0%	16.0%	56.0%	20.0%	4.0%
12.Written Communication	2.72	12.0%	28.0%	38.0%	20.0%	2.0%
13.Emotional Self-Awareness	2.70	6.0%	24.0%	64.0%	6.0%	None
14.Accurate Self-Assessment	2.38	16.0%	32.0%	50.0%	2.0%	None
15.Self-Confidence	3.00	2.0%	24.0%	48.0%	24.0%	2.0%
16.Empathy	2.60	10.0%	32.0%	46.0%	12.0%	None
17.Organizational Awareness	3.24	14.0%	38.0%	36.0%	10.0%	2.0%
18.Service	2.52	14.0%	36.0%	36.0%	12.0%	2.0%
19.Self-Control	2.90	12.0%	10.0%	54.0%	24.0%	None
20.Transparency	3.16	4.0%	12.0%	50.0%	32.0%	2.0%
21.Adaptability	3.16	2.0%	20.4%	40.8%	32.7%	4.1%
22.Achievement	3.26	6.0%	8.0%	50.0%	26.0%	10.0%
23.Initiative	2.70	14.0%	22.0%	46.0%	16.0%	2.0%
24.Optimism	3.08	12.0%	8.0%	46.0%	28.0%	6.0%
25.Inspiration	2.58	8.0%	34.0%	52.0%	4.0%	2.0%
26.Influence	2.38	12.0%	46.0%	36.0%	4.0%	2.0%
27.Developing Others	2.68	10.0%	34.0%	38.0%	14.0%	4.0%
28.Change Catalyst	2.34	14.0%	42.0%	40.0%	4.0%	None
29.Conflict Management	2.34	14.0%	44.0%	36.0%	6.0%	None
30.Teamwork and Collaboration	3.60	2.0%	6.0%	34.0%	46.0%	12.0%
31.Building Bonds	3.28	2.0%	12.0%	50.0%	28.0%	8.0%

Accounting Employers - Mean Scores and Frequencies

Indicate the extent to which you believe each skill area should be developed in university accounting programs.

Skill Area	Mean Score	No development (1)	Some development (2)	Good development (3)	Very good development (4)	Excellent development (5)
1. Financial Accounting	4.22	None	6.0%	14.0%	32.0%	48.0%
2.Bookkeeping	3.80	None	6.0%	36.0%	30.0%	28.0%
3.Management Accounting	3.68	None	6.0%	38.0%	38.0%	18.0%
4.Taxation	3.33	None	22.4%	40.8%	18.4%	18.4%
5.Audit and Assurance	3.88	None	12.0%	22.0%	32.0%	34.0%
6.Finance	3.62	None	10.0%	34.0%	40.0%	16.0%
7.Strategy and Governance	3.18	None	18.0%	52.0%	24.0%	6.0%
8.Information Technology	3.60	None	6.0%	44.0%	34.0%	16.0%
9.Analytical Skills	4.22	None	None	24.0%	30.0%	46.0%
10.Integrative Thinking	4.12	None	None	26.0%	36.0%	38.0%
11.Oral Communication	4.24	None	None	18.0%	40.0%	42.0%
12.Written Communication	4.30	None	None	14.0%	42.0%	44.0%
13.Emotional Self-Awareness	3.04	2.0%	20.4%	51.0%	24.5%	2.0%
14.Accurate Self-Assessment	3.16	None	22.0%	44.0%	30.0%	4.0%
15.Self-Confidence	3.22	None	14.0%	58.0%	20.0%	8.0%
16.Empathy	2.92	4.1%	26.5%	44.9%	22.4%	2.0%
17.Organizational Awareness	3.08	None	20.0%	54.0%	24.0%	2.0%
18.Service	3.56	2.0%	10.0%	32.0%	42.0%	14.0%
19.Self-Control	3.14	None	28.0%	38.0%	26.0%	8.0%
20.Transparency	3.76	None	6.0%	32.0%	42.0%	20.0%
21.Adaptability	3.60	None	4.0%	46.0%	36.0%	14.0%
22.Achievement	3.82	None	4.0%	32.0%	42.0%	22.0%
23.Initiative	3.58	None	8.0%	48.0%	22.0%	22.0%
24.Optimism	3.36	None	12.0%	48.0%	32.0%	8.0%
25.Inspiration	3.02	2.0%	26.0%	44.0%	24.0%	4.0%
26.Influence	2.98	4.0%	26.0%	40.0%	28.0%	2.0%
27.Developing Others	3.28	None	22.0%	40.0%	26.0%	12.0%
28.Change Catalyst	2.88	4.0%	30.0%	46.0%	14.0%	6.0%
29.Conflict Management	3.22	2.0%	18.0%	38.0%	49.0%	2.0%
30.Teamwork and Collaboration	4.16	None	2.0%	22.0%	34.0%	42.0%
31.Building Bonds	3.56	None	14.0%	32.0%	38.0%	16.0%

Accounting Graduates- Mean Scores and Frequencies

Indicate how important or not each skill area is in the workplace.

Skill Area	Mean Score	Very unimportant (1)	Unimportant (2)	Neutral (3)	Important (4)	Very important (5)
1. Financial Accounting	4.59	0.7%	None	2.6%	32.9%	63.8%
2.Bookkeeping	4.29	0.7%	3.9%	7.2%	42.1%	46.1%
3.Management Accounting	3.73	2.0%	5.3%	30.5%	42.4%	19.9%
4.Taxation	4.19	2.0%	4.6%	7.3%	45.0%	41.1%
5.Audit and Assurance	4.55	0.7%	2.0%	3.9%	28.3%	65.1%
6.Finance	3.71	0.7%	7.2%	29.6%	45.4%	17.1%
7.Strategy and Governance	3.72	0.7%	5.3%	31.6%	46.7%	15.8%
8.Information Technology	3.93	0.7%	5.3%	21.7%	45.4%	27.0%
9.Analytical Skills	4.61	None	1.3%	2.0%	30.7%	66.0%
10.Integrative Thinking	4.54	0.7%	0.7%	3.3%	34.4%	60.9%
11.Oral Communication	4.53	0.7%	0.7%	3.3%	36.2%	59.2%
12.Written Communication	4.42	0.7%	None	3.9%	47.7%	47.7%
13.Emotional Self-Awareness	4.07	1.3%	4.0%	13.9%	48.3%	32.5%
14.Accurate Self-Assessment	4.22	0.7%	0.7%	8.6%	56.6%	33.6%
15.Self-Confidence	4.33	0.7%	0.7%	7.9%	46.4%	44.4%
16.Empathy	4.03	0.7%	3.3%	16.0%	52.7%	27.3%
17.Organizational Awareness	4.05	None	4.6%	17.1%	46.7%	31.6%
18.Service	4.46	0.7%	1.3%	3.3%	41.1%	53.6%
19.Self-Control	4.32	1.3%	None	7.2%	48.0%	43.4%
20.Transparency	4.45	1.3%	0.7%	5.3%	36.8%	55.9%
21.Adaptability	4.40	0.7%	0.7%	4.6%	46.4%	47.7%
22.Achievement	4.39	0.7%	0.7%	3.3%	50.0%	45.4%
23.Initiative	4.27	0.7%	0.7%	5.3%	57.6%	35.8%
24.Optimism	4.19	1.3%	0.7%	9.3%	55.0%	33.8%
25.Inspiration	3.89	None	3.9%	25.7%	48.0%	22.4%
26.Influence	3.75	None	5.3%	28.9%	51.3%	14.5%
27.Developing Others	4.11	None	3.3%	15.1%	49.3%	32.3%
28.Change Catalyst	3.86	None	3.9%	25.0%	52.0%	19.1%
29.Conflict Management	4.01	0.7%	3.35%	17.1%	52.0%	27.0%
30.Teamwork and Collaboration	4.44	0.7%	2.0%	5.3%	36.8%	55.3%
31.Building Bonds	4.16	1.3%	2.0%	11.3%	50.0%	35.3%

Accounting Graduates- Mean Scores and Frequencies

Indicate the extent to which each skill area was developed as part of your university accounting program.

Skill Area	Mean Score	Poor (1)	Fair (2)	Good (3)	Very good (4)	Excellent (5)
1. Financial Accounting	3.68	1.3%	8.6%	26.3%	48.0%	15.8%
2.Bookkeeping	3.01	6.6%	22.4%	39.5%	27.0%	4.6%
3.Management Accounting	3.28	2.6%	16.4%	40.1%	31.6%	9.2%
4.Taxation	2.71	19.1%	24.3%	26.3%	27.0%	3.3%
5.Audit and Assurance	2.83	13.2%	26.3%	30.9%	23.7%	5.9%
6.Finance	2.97	5.9%	26.3%	35.5%	29.6%	2.6%
7.Strategy and Governance	2.63	13.2%	36.2%	29.6%	17.1%	3.9%
8.Information Technology	2.41	25.7%	29.6%	24.3%	19.1%	1.3%
9.Analytical Skills	3.01	6.6%	23.0%	37.5%	28.3%	4.6%
10.Integrative Thinking	2.98	9.9%	18.4%	40.8%	25.7%	5.3%
11.Oral Communication	3.25	6.0%	13.2%	39.7%	32.5%	8.6%
12.Written Communication	3.30	4.6%	13.2%	40.1%	32.2%	9.9%
13.Emotional Self-Awareness	2.24	25.7%	38.2%	22.4%	13.8%	None
14.Accurate Self-Assessment	2.50	21.7%	28.3%	29.6%	19.1%	1.3%
15.Self-Confidence	2.63	17.1%	28.3%	31.6%	20.4%	2.6%
16.Empathy	2.30	25.0%	30.9%	32.9%	11.2%	None
17.Organizational Awareness	2.64	17.8%	25.0%	33.6%	22.4%	1.3%
18.Service	2.31	22.5%	35.8%	29.8%	11.9%	None
19.Self-Control	2.57	17.8%	28.3%	34.2%	18.4%	1.3%
20.Transparency	2.95	7.9%	21.1%	42.1%	25.7%	3.3%
21.Adaptability	3.01	6.6%	25.0%	35.5%	27.0%	5.9%
22.Achievement	3.26	5.3%	21.1%	29.6%	30.3%	13.8%
23.Initiative	2.90	11.8%	27.0%	26.4%	28.9%	5.9%
24.Optimism	2.80	13.9%	26.5%	29.8%	25.2%	4.6%
25.Inspiration	2.68	18.4%	32.9%	11.8%	3.3%	0.7%
26.Influence	2.46	17.1%	35.5%	32.2%	14.5%	0.7%
27.Developing Others	2.43	19.7%	33.6%	30.9%	15.1%	0.7%
28.Change Catalyst	2.38	23.2%	31.1%	33.1%	9.9%	2.6%
29.Conflict Management	2.68	11.8%	32.2%	36.2%	15.1%	4.6%
30.Teamwork and Collaboration	3.57	2.6%	10.5%	27.0%	47.4%	12.5%
31.Building Bonds	3.34	5.3%	18.4%	28.3%	33.6%	14.5%

Accounting Graduates- Mean Scores and Frequencies

Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program.

Skill Area	Mean Score	No development (1)	Some development (2)	Good development (3)	Very good development (4)	Excellent development (5)
1. Financial Accounting	4.45	None	0.7%	5.9%	40.8%	52.6%
2.Bookkeeping	3.99	None	3.3%	25.7%	39.5%	31.6%
3.Management Accounting	4.05	None	1.3%	17.9%	55.6%	25.2%
4.Taxation	4.05	0.7%	5.3%	13.8%	48.7%	31.6%
5.Audit and Assurance	4.25	None	3.3%	12.7%	40.0%	44.0%
6.Finance	3.95	None	4.0%	20.5%	51.7%	23.8%
7.Strategy and Governance	3.59	None	11.8%	32.2%	40.8%	15.1%
8.Information Technology	3.66	1.3%	12.5%	24.3%	42.1%	19.7%
9.Analytical Skills	4.20	None	3.3%	10.5%	49.3%	36.8%
10.Integrative Thinking	4.25	None	3.9%	9.9%	43.4%	42.8%
11.Oral Communication	4.17	None	2.0%	16.4%	44.1%	37.5%
12.Written Communication	4.15	0.7%	2.6%	15.8%	42.8%	38.2%
13.Emotional Self-Awareness	3.28	6.6%	14.5%	36.8%	28.9%	13.2%
14.Accurate Self-Assessment	3.40	3.3%	15.1%	33.6%	34.2%	13.8%
15.Self-Confidence	3.49	4.6%	11.2%	33.6%	32.2%	18.4%
16.Empathy	3.28	7.2%	14.5%	34.9%	30.3%	13.2%
17.Organizational Awareness	3.43	3.3%	16.0%	30.7%	34.7%	15.3%
18.Service	3.58	4.6%	11.2%	25.7%	38.8%	19.7%
19.Self-Control	3.38	6.6%	12.5%	33.6%	30.9%	16.4%
20.Transparency	3.71	3.3%	8.6%	26.3%	37.5%	24.3%
21.Adaptability	3.75	2.0%	11.2%	23.0%	37.5%	26.3%
22.Achievement	3.76	3.3%	7.2%	24.3%	40.1%	25.0%
23.Initiative	3.64	4.6%	7.9%	28.3%	36.8%	22.4%
24.Optimism	3.57	3.9%	12.5%	28.9%	32.2%	22.4%
25.Inspiration	3.32	6.6%	14.5%	34.9%	28.3%	15.8%
26.Influence	3.30	7.9%	12.6%	33.8%	33.1%	12.6%
27.Developing Others	3.39	6.6%	13.2%	30.3%	34.9%	15.1%
28.Change Catalyst	3.38	4.0%	15.9%	32.5%	33.1%	14.6%
29.Conflict Management	3.63	4.6%	9.2%	26.3%	28.2%	21.7%
30.Teamwork and Collaboration	3.99	0.7%	6.6%	20.4%	38.2%	34.2%
31.Building Bonds	3.78	3.9%	8.6%	24.3%	31.6%	31.6%

PAPER 4:
Results

Should emotional intelligence be developed in university accounting programs? Results from an investigation of employer and graduate attitudes on the skill set requirements for professional accountants.

Research-in-Progress

Abstract

This paper discusses the results from an investigation of employer and graduate attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs develop these skills and in particular the emotional intelligence (EI) skills an accounting graduate needs. Emotional intelligence is the effective awareness, control and management of one's own emotions, and those of other people. There has been considerable debate about the need for accounting students to develop EI skills in their university accounting programs so they are better prepared for a career in the accounting profession. While many studies have identified gaps or lack of correspondence between the university accounting curriculum and the accounting workplace, the findings of this study suggest that the gap may not be as big as expected. While employers and graduates acknowledge the importance of certain EI skills (e.g. self-confidence) for the workplace, they do not have expectations that these skills be developed in university. The results also reveal that employers consider some EI skills (e.g. teamwork and collaboration) as being important and well developed in accounting graduates. Somewhat surprisingly, however, were the findings around technical skills. While employers expect correspondence between workplace importance and coverage in university for most technical skills, they did have some dissonance with graduate technical skill development in university accounting programs.

Keywords: accounting education, emotional intelligence, non-technical skills, neo-correspondence theory

Introduction

This paper discusses the results from an investigation of employer and graduate attitudes on the skill set requirements for professional accountants and specifically whether university accounting programs develop these skills and in particular the emotional intelligence (EI) skills an accounting graduate needs.

During the last 35 years there have been many studies (AAA, 1986; Albrecht and Sack, 2000; Carr *et al.*, 2006*;* De Lange *et al*., 2006; Deppe *et al*., 1991; Estes, 1979; French and Coppage, 1999; Hancock *et al.*, 2009; Kavanagh and Drennan, 2008; McPhail, 2004; Pan and Perera, 2012; Richardson, 2005; Siegel and Sorensen, 1994; Usoff and Feldmann, 1998) regarding the desired skills for accounting students. Many of these studies concluded that nontechnical skills (e.g. communication, leadership, team work) are extremely important in the accounting profession and should be integrated more into university accounting programs.

Since 2002, most of the research on the nontechnical skills of accounting students has specifically focused on emotional intelligence skills (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al*., 2010). According to Goleman (1998) emotional intelligence is a person's self-awareness, self-confidence, self-control, commitment and integrity, and a person's ability to communicate, influence, initiate change and accept change. Goleman's framework of EI, which has been studied in a business context (Goleman, 1995; Goleman, 2000; Goleman *et al.*, 2002), includes 19 emotional competencies and this conceptualization of EI underlies the current study.

In the last decade universities have been criticized for producing accounting graduates who are too theoretical and not "work ready" (Howieson *et al.*, 2010; Siegel *et al.*, 2010). Several researchers in the accounting education field are purporting that there is a significant gap between the skills accounting students develop in university and what accounting employers value (AAA, 1986; Albrecht and Sack, 2000; Bui and Porter, 2010; Jackling and DeLange, 2009; Karr, 2005; Kavanagh and Drennan, 2008; Pan and Perera, 2012; Siegel *et. al*., 2010; Tatikonda, 2010). This study investigated employer and graduate attitudes towards the importance and development of technical and nontechnical skills with a focus on a potential emotional intelligence skills gap. The theoretical framework of neo-correspondence theory, which asserts that higher education institutions should consider employer expectations and align the curriculum accordingly, provided the context for the study (Gintis, 1971; Saunders and Machell, 2000).

The paper will first review the research design, research questions and hypotheses for the study. The results will then be discussed. Finally, the last section of the paper provides some concluding remarks and next steps for the study.

Research Design

The study has a descriptive design - "description of phenomena or characteristics associated with a subject population [the who, what, when, where and how of a topic]" (Cooper and Schindler, 2011, p.149). Given that this study will be the first to use the neo-correspondence theory to examine emotional intelligence in an accounting education context, the study does have exploratory elements. Exploratory studies are an important way to discover "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, p.59).

In Canada, the Chartered Accounting (CA) program is administered regionally (Western Canada, Ontario, Quebec and Atlantic Canada[1]) and nationally by the Canadian Institute of Chartered Accountants (CICA)[2]. The study was conducted in Atlantic Canada (the four most eastern provinces in Canada: Newfoundland and Labrador, Nova Scotia, New Brunswick and Prince Edward Island) and Bermuda. Atlantic Canada has ten universities and the graduates of these schools who pursue the CA program are all students of the Atlantic School of Chartered Accountancy (ASCA - the regional body that delivers the professional CA program in Atlantic Canada and Bermuda). Also, to complete the CA program in Canada a student must be employed by an approved CA training office. These offices are normally CA firms,

[1] CA students in Bermuda complete the CA professional education program in Atlantic Canada.

[2] The CICA develops and evaluates the uniform final examination that all CA students must complete and as such regional CA professional bodies and universities follow similar curriculum that has been approved by the CICA.

government departments (e.g. Office of the Auditor General) and some approved companies in industry. The sample for the study consisted of ASCA students and employers from approved training offices in Atlantic Canada and Bermuda.

The questionnaires for the study (see Appendix A for copies of both questionnaires) were based on the literature review which included findings from the key studies in the field and neo-correspondence theoretical predictions. In section one of both questionnaires, respondents were asked three main questions (parts A, B and C) about 31 different skill areas using a five point Likert scale. The 31 skills included in the questionnaires are listed below in Table 1. The abbreviation for the skill area is noted in parentheses in Table 1 as a reference guide for skill references later in the paper. The skill areas include both technical and nontechnical skills. In Table 1, technical skills have normal formatting, the nontechnical skills are shaded and the EI skills are shaded and underlined. This convention will be used in all Tables throughout the paper.

The technical skill areas (numbers 1-10 in Table 1) in the questionnaires are ten skills which are considered important in the accounting profession (AICPA, 2012; Albrecht and Sack, 2000; CICA, 2012; ICAA and CPA, 2009; Pan and Perera, 2012; Richardson, 2005)

There were 21 nontechnical skills (numbers 11-31 in Table 1) in the questionnaires and 19 (numbers 13-31 in Table 1) of these are the EI skills identified by Goleman *et al.*,(2002). The other two skills included in the nontechnical skills area of the questionnaires are oral communication and written communication skills. These communication skills were included because prior to 2002 the research around nontechnical skills in accounting education focused on communication (Aiken *et al.*, 1994; Andrews and Koester, 1979; Andrews and Sigband, 1984; Estes, 1979; Gingras, 1987; Hassall *et al.*, 2005; Montano *et al.*, 2001; Novin *et al.*, 1990; Rebele, 1985; Zaid and Abraham, 1994).

Table 1: Skills in questionnaires

1. Financial Accounting (FA)	17. Organizational Awareness (OA)
2. Bookkeeping (B)	18. Service (S)
3. Management Accounting (MA)	19. Self-Control (SO)
4. Taxation (TX)	20. Transparency (T)
5. Audit and Assurance (AA)	21. Adaptability (AD)
6. Finance (F)	22. Achievement (AC)
7. Strategy and Governance (SG)	23. Initiative (I)
8. Information Technology (IT)	24. Optimism (OP)
9. Analytical Skills (AS)	25. Inspiration (IS)
10. Integrative Thinking (IN)	26. Influence (IF)
11. Oral Communication (OC)	27. Developing Others (DO)
12. Written Communication (WC)	28. Change Catalyst (CC)
13. Emotional Self-Awareness (ES)	29. Conflict Management (CM)
14. Accurate Self-Assessment (AS)	30. Teamwork and Collaboration (TC)
15. Self-Confidence (SC)	31. Building Bonds (BB)
16. Empathy (E)	

Section two of both questionnaires collected data about various attribute variables and analysis of the results by these attributes will be discussed later in the paper. The next section of the paper will review the research questions and hypotheses for the study.

Research Questions and Hypotheses

The overall research question for the study is: ***Employer and graduate attitudes on the skill set requirements for professional accountants: Should emotional intelligence be developed in university accounting programs?***

The specific research questions for the study are:

1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace?

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

The following specific hypotheses have been developed for testing based on the literature review:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

The respondent profile from the study will be analyzed and discussed in the next section of the paper.

Respondent Profile

The surveys were launched on August 7, 2013 and closed on September 15, 2013. Table 2 summarizes the responses received. The response rates for the current study are consistent with the studies reviewed in the accounting education field. In surveys of accounting graduates, Jackling and Delange (2009) and Carr *et al.* (2006) reported response rates of 27% (n=174) and 26.4% (n=237) respectively. Pan and Perera (2012) reported a response rate of 41.9% (n=106) in their survey of accounting employers.

Table 2: Survey responses

	Sample Size	Total Responses	Invalid Responses	Useable Responses	Response Rate
Graduates	438	204	5	199	45.4%
Employers	110	68	1	67	60.9%[3]

The Statistical Package for Social Sciences (SPSS V.21) was used to analyze the data from the questionnaires. Table 3, below, shows the summary of the percentages for the graduate attribute variables of gender, ASCA program start date, years since university graduation, type of university degree, work location, type of approved training office, co-op work term experience and general work experience.

There were slightly more female respondents than male respondents in the accounting graduate survey. The gender balance among ASCA students is approximately 50:50[4] so the sample is consistent with the population. The ASCA students surveyed are either just starting their programs or finishing their programs. There a few students in an intermediate type of

[3] The employer response rate assumes that one respondent from an approved training office participated in the survey. As the survey was anonymous it is uncertain how many representatives from approved training offices actually participated.

[4] Provided by ASCA staff in August 2013.

stage if they have failed a module during their program. Thus, the reported data for ASCA program start date and years since university graduation are consistent with the ASCA student profile and program structure. Similarly most students that start the CA program have undergraduate business/commerce degrees (some are business/commerce co-operative degrees with work terms[5]).

The graduate survey respondents from each region are consistent with the actual breakdown of graduates by region[6]. Likewise, the majority of approved CA training offices are either national or local firms, as there are a very small number of regional firms in Atlantic Canada.

Table 3: Attribute variables - accounting graduates (n=199)

Variable	Analysis					Total
Gender	Male (42.7%)	Female (57.3%)	-	-	-	100%
ASCA Program Start Date	2013 (48.3%)	2012 (26.1%)	2011 or earlier (25.6%)	-	-	100%
Years since university graduation	0-1 years (57.3%)	2 years (24.1)%	3 years (10.6%)	More than 3 years (8.0%)	-	100%
University Degree	Business/ Commerce (43.7%)	Business/ Commerce co-op (50.3%)	Arts (1.5%)	Science (3.0%)	Other (1.5%)	100%
Work location	Bermuda (4.0%)	Newfoundland & Labrador (23.1%)	New Brunswick (21.1%)	Nova Scotia (42.3%)	Prince Edward Island (9.5%)	100%
Type of approved training office	National firm (56.9%)	Regional firm (2.5%)	Local firm (28.6%)	Industry (7.5%)	Government (4.5%)	100%
Amount of co-op work term experience	None (46.2%)	1-4 months (9.0%)	5-8 months (12.1%)	9-12 months (30.7%)	More than 1 year (2.0%)	100%
Amount of work experience (excluding co-op work terms)	Less than 4 months (30.2%)	4-8 months (8.0%)	9-12 months (16.6%)	1-2 years (15.6%)	More than 2 years (29.6%)	100%

Table 4, below, shows the summary of the percentages for the employer attribute variables of work location, type of approved training office, area of work specialization and number of articling[7] CA students currently on staff. The type of employer respondents in the survey were primarily in the partner, senior manager, manager and "other category". The "other category" captured those administrative professionals in the firm who are responsible for CA student recruitment and training. The location of the employer survey respondents is representative of the locations of the sampled population[8].

[5] In addition to the normal academic course requirements of a business/commerce degree, students completing a business/commerce co-operative degree have work term placements as part of the required academic degree requirements.

[6] The actual breakdown of ASCA students by location (provided by ASCA staff in August 2013) is: Bermuda - 6%, Newfoundland & Labrador - 23%, New Brunswick - 28%, Nova Scotia - 36%, and Prince Edward Island - 7%.

[7] CA students who work with approved training offices are referred to as articling students while they are completing the CA program requirements.

[8] The actual breakdown of approved CA training offices by location (provided by ASCA staff in August 2013) is: Bermuda - 5%, Newfoundland & Labrador - 17%, New Brunswick - 23%, Nova Scotia - 44%, and Prince Edward Island - 11%.

Given that audit, assurance and financial accounting provide the foundation of the work performed by CA training offices, it is not surprising that the majority of respondents worked in these areas. In terms of number of articling CA students, the largest group of respondents (46.2%) reported having four to seven per office. This would likely reflect the national offices while the 44.8% reported having less than three articling students would be the small firms, industry and government approved training offices. It is not surprising that only 9% of respondents had more than seven articling students in their office. Atlantic Canada is relatively small[9] compared to central Canada (e.g. Ontario and Quebec) and even the national firms in this region are smaller relative to their counterparts in larger populated regions of Canada.

Table 4: Attribute variables - accounting employers (n=67)

Variable	Analysis						Total
Position	Partner (32.8 %%)	Senior manager (22.4%)	Manager (19.4%)	CFO/ Controller (3.0%)	Other (22.4%)	-	100%
Work location	Bermuda (6.0%)	Newfoundland & Labrador (26.9%)	New Brunswick (14.9%)	Nova Scotia (38.8%)	Prince Edward Island (13.4%)	-	100%
Type of approved training office	National firm (41.8%)	Regional firm (3.0%)	Local firm (40.3%)	Industry (13.4%)	Government (1.5%)	-	100%
Area of work specialization	Financial accounting (22.4%)	Management accounting (3.0%)	Audit/ Assurance (56.7%)	Tax (11.9%)	Insolvency (none)	Other (6.0%)	100%
Number of articling CA students in office	Less than 3 (44.8%)	4-7 (46.2%)	More than 7 (9.0%)	-	-	-	100%

In summary, the response rates for both questionnaires were consistent with other studies in the accounting education field. The number of valid responses to both questionnaires are representative of the sampled population and sufficient to permit analysis of the data. The next section of the paper will present the results of the study.

Analysis of Skill Set Requirements Results

This section of the paper will have multiple sub-sections that examine the research questions and hypotheses in the context of the data collected. The five main areas addressed will be: importance of skills, extent of development of skills in graduates, expected development of skills in university accounting programs, importance of skills vs. expected development in university accounting programs and importance of skills vs. extent of development of skills in graduates. Frequencies and descriptives were derived from both data sets. Descriptive statistics are designed to provide an overview of the features of the sample (Easterby-Smith *et al*., 1991).

The results section begins with an examination of the findings for the importance of skills.

Importance of skills results

Research questions 1 and 2 in the study were:

1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace?

[9] According to ASCA staff in August 2013, Atlantic Canada represents approximately 6.5% of the population of Canada and has approximately 5% of the students completing the CA program in Canada.

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

The first hypothesis in the study was:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

There was one stand-alone question (listed as question 2) in both questionnaires which asked - *overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills.* Table 5, below, presents the results to this question by graduates and employers. There was a remarkable consistency between the employer and graduate responses to this question. Over 90% of both groups reported that nontechnical skills were equally as important (if not more important) than technical skills in the workplace.

Table 5. The importance of nontechnical skills compared to technical skills

	Employers (n=67)	Graduates (n=199)
Nontechnical skills not as important as technical skills	9.0%	6.5%
Nontechnical skills equally important as technical skills	71.6%	73.4%
Nontechnical skills are more important as technical skills	19.4%	20.1%

In the first question in the questionnaires both groups of respondents were asked how important or not each of the 31 skill areas are in the workplace. The response options on the scale went from: very unimportant (1), unimportant (2), neutral (3), important (4) and very important (5). Thus, the higher the mean scores reported the more important the skill was perceived to be in the workplace by employers and graduates.

In overall terms, the mean importance scores for all technical skills, all nontechnical skills and all emotional intelligence skills were analyzed for both groups of respondents. These results are displayed in Table 6. All of the skills were grouped according to their classification as technical, nontechnical or emotional intelligence.

Even though 91% of employers reported (as seen in Table 5) that nontechnical skills were equally important or more important than technical skills in the workplace, this was not reflected in their overall mean scores for each group of skills. As Table 6 notes the mean importance score for employers is higher for technical skills than nontechnical (or the emotional intelligence skills). The mean score for all technical skills for graduates was the same as the mean total score for the emotional intelligence skills. Also, graduates had a higher importance mean score for nontechnical skills compared to technical skills. It is noted that the employer and graduate responses to importance grouped by skill area were very similar. The independent samples t-test "is used to determine if the means of two unrelated samples differ" (Bryman and Cramer, 2011, p. 172). In order to determine what outcomes are meaningful statistically significant differences are evaluated and significance levels are normally set at a level of 0.05 (Bryman and Cramer, 2011). Independent samples t-tests were ran to examine whether there was a statistically significant difference between the employer and graduate responses and none were found.

Table 6: Importance scores by skill groupings

Skills by Grouping	**Employer Mean Score**	**Graduate Mean Score**	**Difference**	**Significance of Difference**
Technical skills	4.27	4.19	- 0.08	0.159
Nontechnical skills	4.19	4.22	0.03	0.654
Emotional intelligence skills	4.15	4.19	0.04	0.581

Given that the focus of the study was on the EI skills, the overall mean scores of all technical skills and all EI skills were compared within each group of respondents and the results are

presented below in Table 7. While graduates did not show a difference between their overall mean scores for technical skills vs. EI skills, there was a statistically significant difference found for employers.

Table 7: Technical skills vs. .emotional intelligence skills

Skills by Grouping	Employer Mean Score	Graduate Mean Score
Technical skills	4.27	4.19
Emotional intelligence skills	4.15	4.19
Difference	-0.12	0.00
Significance of difference	0.011**	0.980

** significant at 0.05 level

Analysis around research questions one and two and the first hypothesis continued with an examination of the mean scores at the individual skill level. Table 8, below, presents the importance mean scores and rankings of skills according to employers and graduates. The skills are listed in the order of highest ranking from the employer perspective and the corresponding graduate ranking is given. The differences in mean scores and rankings are also provided. Independent samples t-tests was conducted to examine whether there was a significant difference between graduates and employers attitudes about the importance of the individual skill areas in the workplace. These results are also displayed in Table 8.

Overall, both employers and graduates favorably ranked the importance of the skills in the workplace. The overall mean importance score for all skills for both employers and graduates was the same (4.22). Both groups rated 24 of the 31 skills with a mean score above 4.0 indicating that the skill was important or very important. Also, as Table 8 shows, the differences in skill rankings did not show many large variances. The biggest difference in rankings (8) between employers and graduates were for bookkeeping and finance. Thus, the results to question two as displayed in Table 5 are not that inconsistent. However, interesting insights are obtained when the skills are considered from a relative importance perspective.

For employers the three top skills ranked as important in the workplace were technical skills - financial accounting, analytical skills and integrative thinking. The remaining two skills in the top five for employers were nontechnical (oral communication and transparency) with one (transparency) being an EI skill. If the top ten ranked skills by employers are examined five are technical and five are nontechnical, of which three are emotional intelligence skills. In addition to financial accounting, analytical skills and integrative thinking the other two highly ranked technical skills were bookkeeping and audit and assurance.

The graduate rankings of the top skills seen as important in the workplace were similar to employers. It is interesting to note that four skills (financial accounting, analytical skills, integrative thinking and oral communication) rated in the top five by both employers and graduates were the same. The fifth ranked skill for employers was transparency, which graduates ranked as number six. For graduates their top ten ranked skills in terms of importance included four technical skills and six nontechnical skills, of which three were emotional intelligence skills. The top ranked technical skill for graduates was audit and assurance which was ranked number 8 by employers.

When examining the least important rated skills for the workplace, there is again similarity between employer and graduate responses. For employers three of their five least important rated skills were nontechnical and two were technical. All of the three nontechnical skills were EI skills - inspiration, conflict management and change catalyst. The lowest ranked technical skills by employers were management accounting and strategy and governance. For graduates three of their five least important rated skills were technical with management accounting receiving the lowest ranking. It is interesting to note that three skills rated in the bottom five by both employers and graduates were the same. These were the skills of management accounting, change catalyst and strategy and governance.

As Table 8 indicates significant differences between the attitudes of employers and graduates about the importance of the various skills in the workplace were only found for financial accounting, audit and assurance, finance, self-confidence and conflict management. Employers had higher mean scores than graduates for the technical skills of financial

accounting and finance while graduates had higher mean scores for the technical skill of audit and assurance and the emotional intelligence skills of self-confidence and conflict management. Thus, hypothesis one, focusing specifically on the importance of emotional intelligence skills in the workplace, was not supported by the data collected as significant differences in attitudes between employers and graduates were only found for two of the 19 emotional intelligence skills.

Table 8: Importance of skills mean scores and rankings

Skill Area	Employer Mean and (Rank)	Graduate Mean and (Rank)	Difference in Means	Difference in Rankings
1.Financial Accounting	4.76 (1)	4.59 (3)	-0.17*	2
2.Analytical Skills	4.66 (2)	4.60 (2)	-0.06	0
3.Integrative Thinking	4.66 (3)	4.56 (4)	-0.1	1
4.Oral Communication	4.64 (4)	4.54 (5)	-0.1	1
5.Transparency	4.58 (5)	4.49 (6)	-0.09	1
6.Bookkeeping	4.46 (6)	4.30 (14)	-0.16	8
7.Adaptability	4.45 (7)	4.42 (10)	-0.03	3
8.Audit and Assurance	4.40 (8)	4.60 (1)	0.2**	-7
9.Written Communication	4.39 (9)	4.42 (9)	0.03	0
10.Service	4.39 (10)	4.47 (8)	0.08	-2
11.Self-Control	4.38 (11)	4.37(12)	-0.01	1
12.Teamwork and Collaboration	4.37 (12)	4.48 (7)	0.11	-5
13.Achievement	4.36 (13)	4.40 (11)	0.04	-2
14.Initiative	4.25 (14)	4.29 (15)	0.04	1
15.Building Bonds	4.24 (15)	4.21 (18)	-0.03	3
16.Optimism	4.18 (16)	4.25 (16)	0.07	0
17.Self-Confidence	4.16 (17)	4.33 (13)	0.17**	-4
18.Organizational Awareness	4.16 (18)	4.06 (22)	-0.1	4
19.Accurate Self-Assessment	4.13 (19)	4.23 (17)	0.01	-2
20.Taxation	4.13 (20)	4.14 (19)	0.1	-1
21.Developing Others	4.12 (21)	4.09 (20)	-0.03	-1
22.Finance	4.09 (22)	3.77 (30)	-0.32*	8
23.Emotional Self-Awareness	4.01 (23)	4.08 (21)	0.07	-2
24.Information Technology	4.00 (24)	3.94 (25)	-0.06	1
25.Empathy	3.94 (25)	4.05 (23)	0.11	-2
26.Influence	3.87 (26)	3.77 (29)	-0.1	3
27.Management Accounting	3.85 (27)	3.73 (31)	-0.12	4
28.Inspiration	3.84 (28)	3.92 (26)	0.08	-2
29.Conflict Management	3.82 (29)	4.04 (24)	0.22**	-5
30.Change Catalyst	3.76 (30)	3.87 (27)	0.11	-3
31.Strategy and Governance	3.73 (31)	3.78 (28)	0.05	-3
Overall Mean Score	4.22	4.22		

* significant at 0.01 level ** significant at 0.05 level

In summary, employers and graduates had very similar attitudes about what technical and nontechnical skills are important in the accounting workplace. Both groups shared common perspectives on the most important and least important individual skills. Employers ranked technical skills slightly higher in importance than graduates but the differences between both groups for nontechnical and specifically EI skills was not significant. These finding suggest that a gap about the importance of the professional skill set requirements for professional accountants from employer and graduate perspectives is not that big.

Extent of development of skills in graduates results

Research questions 3 and 4 in the study were:

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

The second hypothesis in the study was:

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

The question that addressed the area of the extent of development of the skills in graduates differed slightly for employers and graduates. Employers were asked the extent to which each skill area was developed in the recent university accounting gradates hired by their organization. Graduates were asked the extent to which each skill area was developed as part of their university accounting program. The response options on the scale were the same for employers and graduates and went from: poor (1), fair (2), good (3), very good (4) and excellent (5). Thus, the higher the mean scores reported the more developed the skill was perceived to be in accounting graduates by employers and the graduates themselves.

Initial analysis was conducted on the overall mean scores for the extent of development in graduates for the major skills categories. These results are displayed in Table 9. All of the skills were grouped according to their classification as technical, nontechnical or emotional intelligence. Graduates had higher mean scores for each category of skills and this may in some part be attributable to potential bias from self-reporting by graduates in rating their own development. It is interesting to note that the employer mean scores were almost identical for each group of skills suggesting that employers viewed the development of all the skills in graduates as being very similar. Independent samples t-tests were ran to examine whether there was a significant difference between the employer and graduate responses and the only statistically significant difference found was for technical skills.

Table 9: Extent of development in graduates scores by skill groupings

Skills by Grouping	Employer Mean Score	Graduate Mean Score	Difference	Significance of Difference
Technical skills	2.78	3.02	0.24	0.010*
Nontechnical skills	2.78	2.89	0.11	0.324
Emotional intelligence skills	2.77	2.82	0.04	0.666

* significant at 0.01 level

Given that the focus of the study was on the EI skills, the overall mean scores of all technical skills and all EI skills were compared within each group of respondents and the results are presented below in Table 10. While employers only had a 0.01 difference between their overall mean scores for technical skills vs. EI skills, there was a statistically significant difference found for graduates between those skill groupings.

Table 10: Technical skills vs. emotional intelligence skills

Skills by Grouping	Employer Mean Score	Graduate Mean Score
Technical skills	2.78	3.02
Emotional intelligence skills	2.77	2.82
Difference	-0.01	-0.20
Significance of difference	0.872	0.000*

* significant at 0.01 level

The analysis of research questions three and four and the second hypothesis continued with an examination of the mean scores at the individual skill level. Table 11, below, presents the extent of development in graduates mean scores and rankings of skills according to employers and graduates. The skills are listed in the order of highest ranking from the employer perspective and the corresponding graduate ranking is given. The differences in mean scores and rankings are also provided. Independent samples t-tests were performed on the employer and graduate responses for all skills areas and the results are also displayed in Table 11. The skill areas found to have statistically significant differences are noted.

Overall both employers and graduates did not consider many of the skills to have very good or excellent development in graduates. Employers and graduates only ranked nine and 14 skills respectively with a mean score above 3.0 indicating that the skill had very good development. The overall mean score for all skills were similar between employers (2.78) and graduates (2.92).

As Table 11 indicates statistically significant differences between the attitudes of employers and graduates about the extent of development of the various skill areas in accounting graduates were found for 14 skill areas. In all but two of the skill areas the mean scores of graduates were higher than employers indicating that they had more favorable attitudes about their development in that skill area. For the 21 nontechnical skills there were significant differences for seven: oral communication, written communication, emotional self-awareness, accurate self-assessment, organizational awareness, initiative and conflict management. Specifically with respect to the EI skill areas there were significant differences found for five of the 19 emotional intelligence skills. Thus, while there are some differences, hypothesis two, specifically focusing on emotional intelligence skills, was not strongly supported by the data collected from employers and graduates.

For the technical skills there were significant differences in seven of the ten listed skills: financial accounting, bookkeeping, management accounting, finance, strategy and governance, information technology, and integrative thinking. Thus, while the hypothesis focused on the development of emotional intelligence skills in accounting graduates, the findings suggest that there is a bigger gap between the attitudes of accounting employers and graduates about the extent of the development of technical skills in accounting graduates. This is supported with the results of Table 9 where a statistically significant difference was found between employers and graduates for technical skills when grouped together.

Employers only identified one technical skill (financial accounting) in the top five rated skills as being developed in accounting graduates. The other skills in the top five were the emotional intelligence competencies of teamwork and collaboration, achievement, building bonds and transparency. When the top ten skills are looked at for employers seven are emotional intelligence skills. In addition to financial accounting, there is only one other technical skill (information technology) in the top ten employer skill rankings.

While graduates had higher ratings of their skills development than the evaluation made by employers for 23 of the 31 skill areas, the results for graduates did have some similarities to that of employers. Graduates reported their most developed skill to be financial accounting. Management accounting was also in their top five with the remaining three skills being written

communication and the EI skills of teamwork and collaboration and building bonds. Thus, the three skills of teamwork and collaboration, financial accounting and building bonds were rated as the most developed in graduates by both employers and graduates.

Table 11: Extent of development in graduates

Skill Area	Employer Mean and (Rank)	Graduate Mean and (Rank)	Difference in Means	Difference in Rankings
1.Teamwork and Collaboration	3.54 (1)	3.64 (2)	0.10	1
2. Financial Accounting	3.34 (2)	3.74 (1)	0.40*	-1
3.Achievement	3.25 (3)	3.32 (6)	0.07	3
4.Building Bonds	3.22 (4)	3.39 (3)	0.17	-1
5.Transparency	3.19 (5)	3.04 (13)	-0.15	8
6.Adaptability	3.09 (6)	3.12 (9)	0.03	3
7.Optimism	3.07 (7)	2.90 (15)	-0.17	8
8.Information Technology	3.04 (8)	2.48 (28)	-0.56*	20
9.Oral Communication	3.01 (9)	3.31 (7)	0.30**	-2
10.Self-Confidence	2.97 (10)	2.75 (20)	-0.22	10
11.Audit and Assurance	2.94 (11)	2.88 (16)	-0.06	5
12.Analytical Skills	2.93 (12)	3.07 (10)	0.14	-2
13.Self-Control	2.87 (13)	2.68 (23)	-0.19	10
14.Management Accounting	2.78 (14)	3.36 (4)	0.58*	-10
15.Integrative Thinking	2.73 (15)	3.04 (12)	0.31**	-3
16.Initiative	2.69 (16)	3.00 (14)	0.31**	-2
17.Finance	2.68 (17)	3.05 (11)	0.37*	-6
18.Emotional Self-Awareness	2.66 (18)	2.39 (31)	-0.27**	13
19.Written Communication	2.63 (19)	3.36 (5)	0.73*	-14
20.Developing Others	2.63 (20)	2.56 (25)	-0.07	5
21.Inspiration	2.60 (21)	2.80 (17)	0.20	-4
22.Bookkeeping	2.58 (22)	3.13 (8)	0.55*	-14
23.Empathy	2.57 (23)	2.43 (30)	-0.14	7
24.Taxation	2.55 (24)	2.69 (22)	0.14	-2
25.Influence	2.43 (25)	2.55 (26)	0.12	1
26.Service	2.43 (26)	2.46 (29)	0.03	3
27.Organizational Awareness	2.43 (27)	2.75 (19)	0.32**	-8
28.Accurate Self-Assessment	2.38 (28)	2.62 (24)	0.24**	-4
29.Conflict Management	2.37 (29)	2.78 (18)	0.41*	-11
30.Change Catalyst	2.36 (30)	2.54 (27)	0.18	-3
31.Strategy and Governance	2.33 (31)	2.74 (21)	0.41*	-10
Overall Mean Score	2.78	2.92		

* significant at 0.01 level ** significant at 0.05 level

There was also some overlap in employer and graduate attitudes on the least developed skill areas in accounting graduates according to mean scores reported by employers and graduates. For employers the least developed skills in graduates were the emotional intelligence skills of change catalyst, conflict management, accurate self-assessment, influence, organizational

awareness and service. The least developed skill employers ranked was the technical skill area of strategy and governance. The other technical skill that employers viewed as having lower development in graduates was taxation.

For graduates four of their five least developed skills were the EI skills of emotional self-awareness, empathy, service and change catalyst. The lowest ranked (number 28) technical skill area for graduates was in the area of information technology. It is interesting to note that employers had ranked information technology relatively high (number 8). Similarly, employers ranked the skill area of bookkeeping on the lower range (number 22) with respect to being developed in accounting graduates, while the graduates had ranked it much higher (number 8). The other big difference (14) in skill rankings between employers and graduates was written communication where graduates had a statistically different higher score.

In summary, employers had less favorable attitudes than graduates about the development of skills in graduates, thus indicating a gap. For the 14 skill areas that had significant differences, in all but two of the skills, employers had lower mean scores than graduates indicating that they viewed the skill area as being less developed that graduates believed. While there were seven technical and seven nontechnical skills identified with significant differences, on a percentages basis there were more concern from employers for the overall technical skill development of accounting graduates. This is also evident from Table 9 when the means for the combined skill areas are compared. Areas of common ground between the two groups were found for technical skills like financial accounting which were seen as well-developed along with the emotional skills of building bonds and teamwork and collaboration. Both groups view many of the other emotional intelligence skills such as service and change catalyst as being on the lower end of the development scale.

Expected development of skills in university results

Research questions 5 and 6 in the study were:

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

With these research questions the intention was to determine employer and graduate attitudes regarding the desired development of the skill areas in university accounting programs. The question asked to both groups was to indicate the extent to which each skill area should be developed in university accounting programs.The response options on the scale were the same for employers and graduates: no development (1), some development (2), good development (3), very good development (4) and excellent development (5). Thus, the higher the mean scores reported the more expectation there is that the skill area should be developed in university accounting programs.

In overall terms, all technical skills, all nontechnical skills and all emotional intelligence skills were analyzed for both groups of respondents. Table 12 presents the results of this analysis. All of the skills were grouped according to their classification as technical, nontechnical or emotional intelligence. As Table 12 shows, employers had higher mean scores for the expected development of technical skills in university compared with the expected development of nontechnical and emotional intelligence skills. Graduates had similar attitudes in that the expected development in university was higher for technical skills. Graduates, in general, had higher expectations for skill development in university than employers for all three skill groupings. Independent samples t-tests were conducted on the employer and graduate scores for all three categories of skills. As Table 12 shows, while graduates had higher ratings about the development in university of three skill areas, a statistically significant difference was only found for the technical skills area.

Table 12: Expected development in university scores by skill groupings

Skills by Grouping	Employer Mean Score	Graduate Mean Score	Difference	Significance of Difference
Technical skills	3.81	4.01	- 0.20	0.017**
Nontechnical skills	3.54	3.59	0.05	0.650
Emotional intelligence skills	3.46	3.53	0.07	0.53399

** significant at 0.05 level

Given that the focus of the study was on the EI skills, the overall mean scores of all technical skills and all EI skills were compared within each group of respondents and the results are presented below in Table 13. There was a statistically significant difference found for both employers and graduates with respect to their attitudes about the expected development of technical skills vs. emotional intelligence skills in university. Both groups rated technical skills higher for development in university.

Table 13: Technical skills vs. emotional intelligence skills

Skills by Grouping	Employer Mean Score	Graduate Mean Score
Technical skills	3.81	4.01
Emotional intelligence skills	3.46	3.53
Difference	-0.35	-0.48
Significance of difference	0.000*	0.000*

* significant at 0.01 level

The analysis of research questions 5 and 6 continued with an examination of the mean scores at the individual skill level. Table 14, below, presents the mean scores and rankings for the extent of development in university for all 31 skills according to employers and graduates. The skills are listed in the order of highest ranking from the employer perspective and the corresponding graduate ranking is given. The differences in mean scores and rankings are also provided. Independent samples t-tests were performed on the employer and graduate responses for all skills areas and the results are also displayed in Table 14. The skill areas found to have statistically significant differences are noted.

Overall, employers believed that just six skills warrant excellent or very good development in university whereas for graduates it was 10 skills. For employers three of their top five most rated skills for development in university accounting programs were nontechnical (written communication and oral communication) and one of these was an emotional intelligence skill (teamwork and collaboration). The most rated technical skill for development in university accounting programs from the employer perspective was financial accounting which was also rated as the highest in terms of importance in the workplace.

For graduates all but one of their top rated skills for development in university accounting programs were technical and the one nontechnical skill was oral communication. There were similarities in the top rated skills between employers and graduates as three skill areas (financial accounting, oral communication and analytical skills) were in the top five for both employers and graduates. The rankings of employers and graduates attitudes were also very similar with respect to the least rated skills for development in university accounting programs. The same four EI skills (change catalyst, empathy, influence and inspiration) were ranked the lowest for development in university accounting programs. The other skills at the bottom of the rankings for both groups were organizational awareness and developing others, both emotional intelligence skills.

As Table 14 indicates statistically significant differences between the attitudes of employers and graduates about the expected development of the various skill areas in university were found for five skill areas. These five skills were all technical - audit and assurance, finance, management accounting, taxation and strategy and governance - and for each one the mean scores of graduates were higher than employers indicating that they had more favorable attitudes about the development of that skill area in university.

Table 14: Expected development in university accounting programs

Skill Area	Employer Mean and (Rank)	Graduate Mean and (Rank)	Difference in Means	Difference in Rankings
1.Written Communication	4.33 (1)	4.14 (6)	-0.19	5
2.Oral Communication	4.28 (2)	4.16 (5)	-0.12	3
3.Analytical Skills	4.25 (3)	4.16 (4)	-0.09	1
4.Financial Accounting	4.20 (4)	4.42 (1)	0.22	-3
5.Teamwork and Collaboration	4.19 (5)	4.04 (8)	-0.15	3
6.Integrative Thinking	4.18 (6)	4.22 (3)	0.04	-3
7.Audit and Assurance	3.94 (7)	4.25 (2)	0.31**	-5
8.Achievement	3.90 (8)	3.75 (14)	-0.15	6
9.Bookkeeping	3.88 (9)	4.01 (9)	0.13	0
10.Transparency	3.82 (10)	3.72 (15)	-o.10	5
11.Adaptability	3.76 (11)	3.78 (13)	0.02	2
12.Finance	3.70 (12)	3.95 (11)	0.25**	-1
13.Management Accounting	3.69 (13)	4.06 (7)	0.37*	-6
14.Initiative	3.69 (14)	3.65 (16)	-0.04	2
15.Building Bonds	3.69 (15)	3.80 (12)	0.11	-3
16.Information Technology	3.67 (16)	3.64 (18)	-0.03	2
17.Service	3.61 (17)	3.57 (20)	-0.04	3
18.Optimism	3.48 (18)	3.54 (21)	0.06	3
19.Taxation	3.45 (19)	4.01 (10)	0.56*	-9
20.Conflict Management	3.45 (20)	3.65 (17)	0.20	-3
21.Developing Others	3.40 (21)	3.38 (27)	-0.02	6
22.Accurate Self-Assessment	3.33 (22)	3.42 (24)	0.09	2
23.Self-Confidence	3.32 (23)	3.51 (22)	0.19	-1
24.Self-Control	3.30 (24)	3.41 (25)	0.11	-1
25.Strategy and Governance	3.28 (25)	3.59 (19)	0.31**	-6
26.Emotional Self-Awareness	3.23 (26)	3.31 (29)	0.08	3
27.Organizational Awareness	3.19 (27)	3.44 (23)	0.25	-4
28.Inspiration	3.16 (28)	3.35 (28)	0.19	0
29.Influence	3.13 (29)	3.26 (31)	0.13	2
30.Empathy	3.11 (30)	3.29 (30)	0.18	0
31.Change Catalyst	3.10 (31)	3.38 (26)	0.28	-5
Overall Mean Score	3.64	3.74		

* significant at 0.01 level ** significant at 0.05 level

In summary, employers and graduates rated technical skills higher than nontechnical (and specifically emotional intelligence skills) for development in university accounting programs. Also, in general, graduates had higher expectations than employers that all skill areas be developed in university programs.

Importance of skills vs. expected development in university results

The third hypothesis in the study was:

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

The initial testing for this hypothesis involved a correlation analysis between questions one and four in the questionnaires for each group of respondents. The summary of the correlation results for both groups of respondent can be found in Appendix B. For employers all of the skill areas, except for bookkeeping, transparency, adaptability and initiative, were significantly correlated with respect to importance of skill and the extent to which it should be developed in university accounting programs. For graduates significant correlations were found for all skill areas. While statistically significant correlations were found it is acknowledged that for many of the skills the correlation levels were not high. Cohen and Holliday (1982), as cited in Bryman and Cramer (2011), suggest the following with respect to correlation levels: " .19 and below is very low; .20 to .39 is low;.40 to .69 is modest;.70 to .89 is high and .90 to 1 is very high"(Bryman and Cramer, 2011, p.214). Given the large sample size of the study it is possible that very low to low correlations are statistically significant thus questioning the practical significance of the correlation results (Sulsky, 2013).

While the correlation analysis did indicate some degree of correspondence, it did not provide enough detail to make meaningful conclusions about the third hypothesis. As such it was decided to perform further analyses. In addition to calculating means and ranking for the skill areas, an integrated analysis of the two variables in a strategic map was constructed (Montano *et al.*, 2001). These maps graph the mean scores collected for all skill areas from the questionnaires. Two intersecting lines, at the overall mean score for all skills, divides the map into 4 areas. These four areas will graphically show above average and below average areas in terms of importance and development for the 31 skill areas.

These strategic maps examine the relationship between questions one and four in the questionnaires, and is key to evaluating the third hypothesis for the study. This association between importance of the skill and the belief that the skill should be covered in university accounting programs is relevant to the neo-correspondence theory. Developed by Saunders and Machell (2000) the neo-correspondence theory promotes an "explicit curriculum" which fosters correspondence between higher education and the workplace. The main focus of the neo-correspondence theory is how higher education institutions should react to the requirements of employers who want graduates with a certain range of skills.

In these maps, the mean scores for each skill area is plotted with respect to the level of importance assigned by the respondents and the extent to which the skill should be developed in university accounting programs. The importance scores are in the ordinate (vertical) axis while the abscissa (horizontal) axis displays the expected development in university scores. An example of this type of strategic map is represented below in Figure 1.

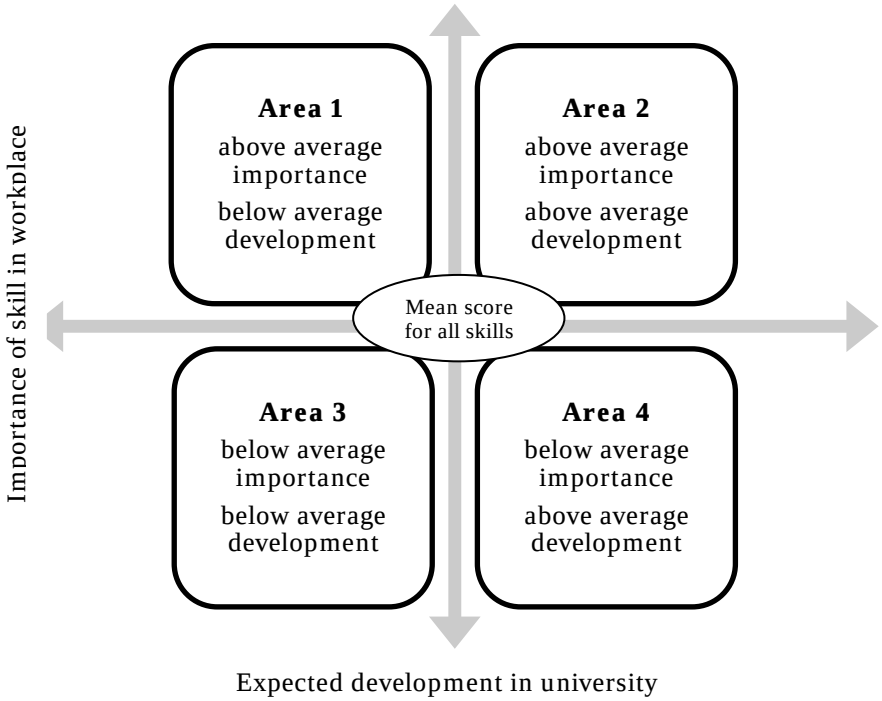

Figure 1: Strategic map example, importance vs. expected development in university

In these set of strategic maps, Area 2, as per the above description, is an area of interest given it displays the skills that are seen having above average importance and needing above average development in university accounting programs. Figures 2 and 3 show the strategic maps for employer attitudes in terms of importance and expected development in university accounting programs for technical skills and nontechnical respectively.

In Area 2 of Figures 2 and 3 the skills that employers view as most important and should be developed in university accounting programs are displayed. The technical skills in this area were financial accounting, audit and assurance, analytical skills, integrative thinking and bookkeeping. There was correspondence for 50% of the technical skills in terms of importance and whether they should be developed in university accounting programs.

The nontechnical skills in Area 2 of Figure 3 include written communication, oral communication and the emotional intelligence competencies of initiative, transparency, adaptability, achievement and teamwork and collaboration. While there were less correspondence for the nontechnical skills (and specifically the EI skills) there was still correspondence for almost 33% and 26% of the nontechnical and emotional intelligence skills respectively. Thus, in evaluating this hypothesis for employers, the extent of correspondence is evident for nontechnical skills and to a lesser degree the emotional intelligence skills but is much stronger for technical skills.

Other interesting observations from Figures 2 and 3 for employers relate to Area 1 where skills viewed as being of high importance but low expected development in university accounting programs would be found. There were no technical skills for employers in this space. However, as seen in Area 1 of Figure 2, while employers found that the EI skills of self-control, self-confidence, organizational awareness, developing others and optimism are important in the workplace, they have lower expectations with respect to their development in university. Area 3 displays the skills that have lower importance and lower expected development in university. The technical skills in this area were: taxation and strategy and governance. The nontechnical skills were: conflict management, change catalyst, inspiration, influence and empathy. Finally, Area 4 shows skills which have below average importance and above average expected development in university. There were no nontechnical skills in this Area but employers did rate the technical skills of finance and information technology as being below average importance in the workplace but having above average expected development in university.

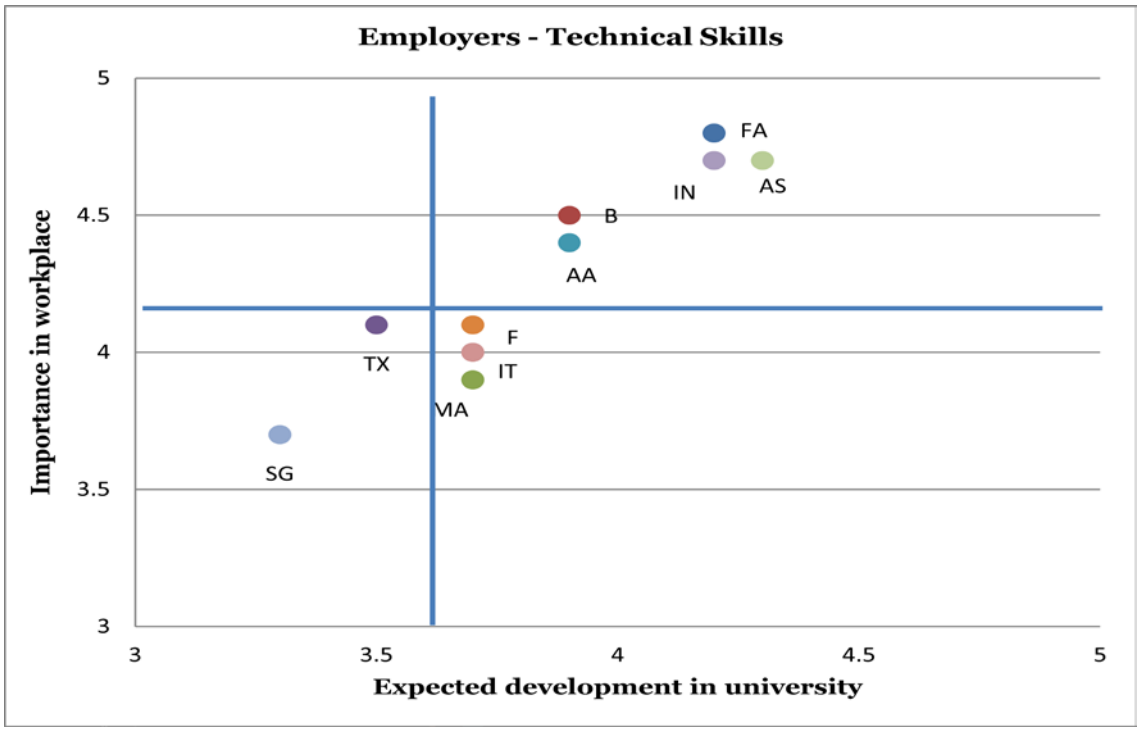

Figure 2: Technical skills*, importance vs. expected development in university

* Technical skills: Financial Accounting (FA), Bookkeeping (B), Management Accounting (MA), Taxation (TX), Taxation (TX), Audit and Assurance (AA), Finance (F), Strategy and Governance (SG), Information Technology (IT), Analytical Skills (AS), Integrative Thinking (IN).

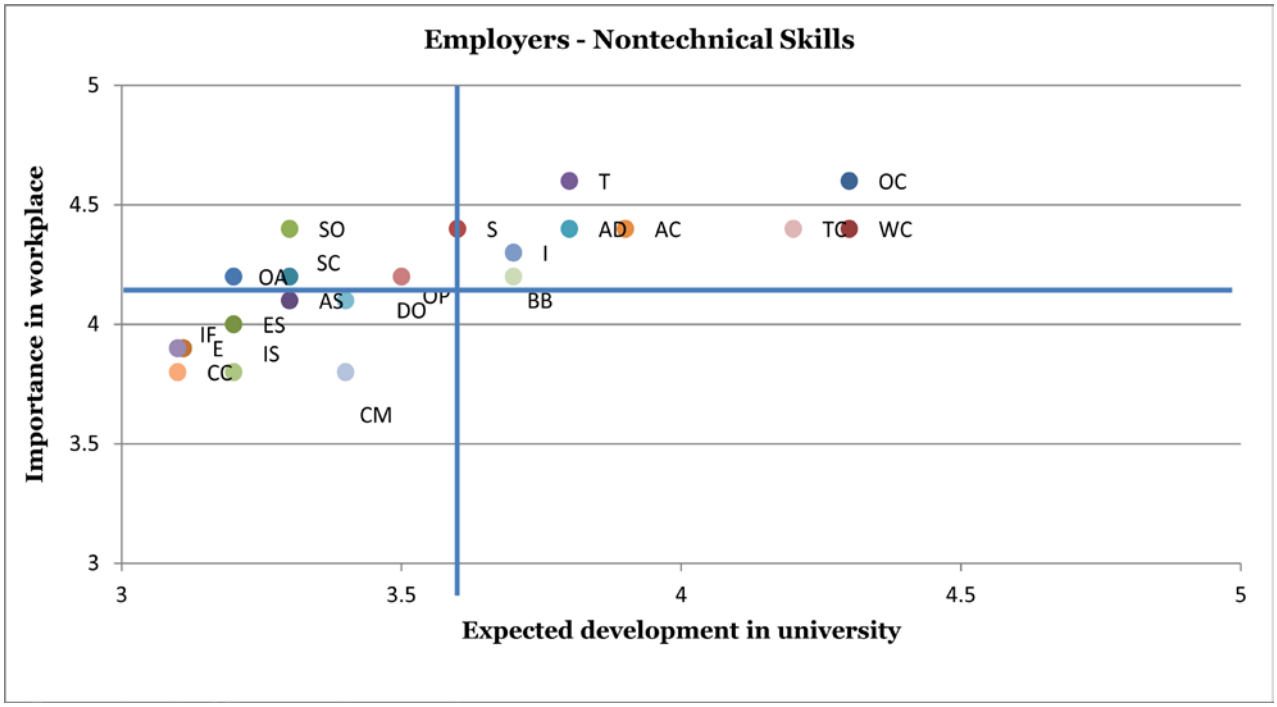

Figure 3: Nontechnical skills, importance vs. expected development in university**

** Oral Communication (OC), Written Communication (WC), Emotional Self-Awareness (ES), Accurate Self-Assessment (AS), Self-Confidence (SC), Empathy (E), Organizational Awareness (OA), Service (S), Self-Control (SO), Transparency (T), Adaptability (AD), Achievement (AC), Initiative (I), Optimism (OP), Inspiration (IS), Influence (IF), Developing Others (DO), Change Catalyst (CC), Conflict Management (CM), Teamwork and Collaboration (TC), Building Bonds (BB).

Figures 4 and 5, below, display the strategic maps for graduate attitudes in terms of importance and extent of development in university accounting programs for technical skills and nontechnical respectively.

The technical skills in Area 2 (above average importance, above average expected development in university) of Figure 4 for graduates were: financial accounting, audit and assurance, analytical skills, integrative thinking and bookkeeping. These are exactly the same results reported by employers. The nontechnical skills in Area 2 of Figure 5 include written and oral communications and the emotional intelligence skills of adaptability and teamwork and collaboration. While employers indentified three more EI skills in this area there was overlap between both groups in terms of the adaptability and collaboration. Thus, if this hypothesis is considered for graduates the extent of correspondence is: 19% for nontechnical skills and 11% for emotional intelligence skills which are much lower than the 50% correspondence for technical skills.

It is interesting to note that graduates had similar views to employers about skills seen as important in the workplace but not expected to be developed in university. Like employers, graduates placed no technical skills in this space (Area 1 of Figure 4). However, like employers graduates ranked several emotional intelligence skills in Area 1 of Figure 5 including self-control, self-confidence, service, initiative, optimism and accurate self-assessment. Area 3 displays the skills that have lower importance and lower expected development in university. The technical skills in this area were: information technology and strategy and governance. The nontechnical skills were: conflict management, change catalyst, influence, organizational awareness, developing others and emotional self-awareness. Finally, Area 4 shows skills which have below average importance and above average expected development in university. There were no nontechnical skills in this Area but graduates did rate the technical skills of finance and management accounting as being below average importance in the workplace but having above average expected development in university.

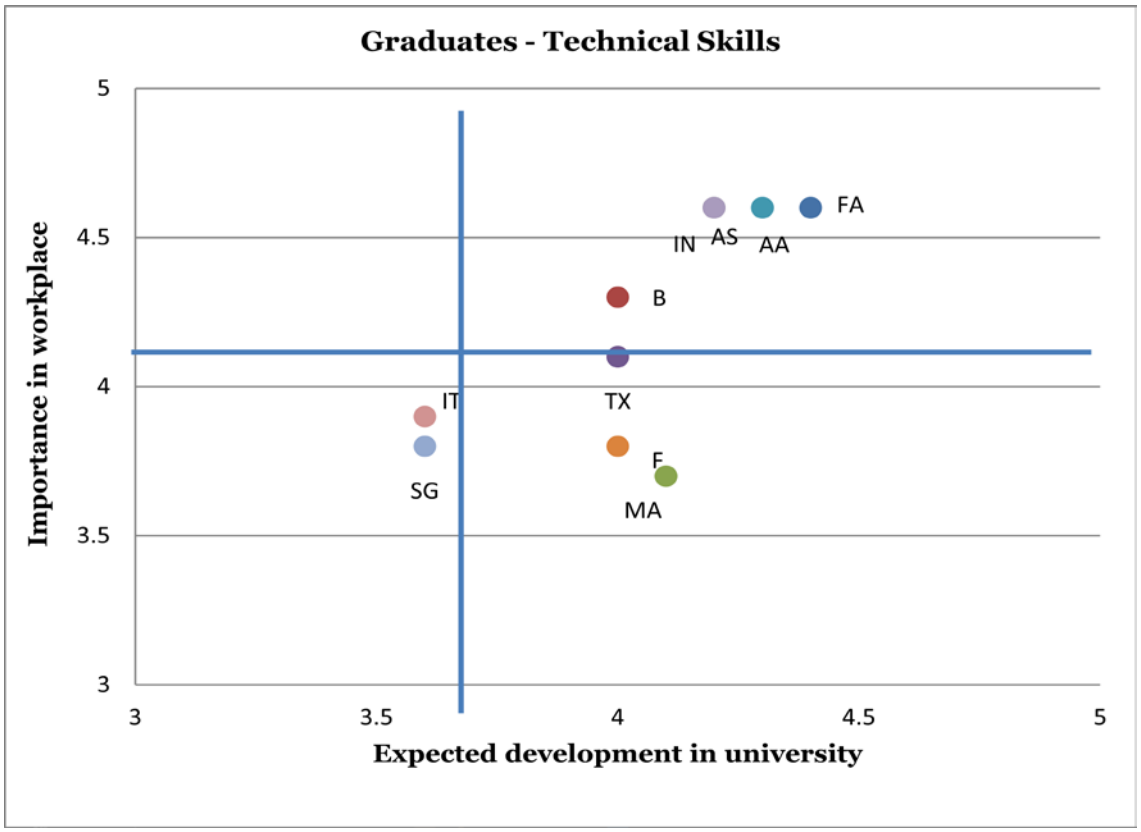

Figure 4: Technical* skills, importance vs. expected development in university

* Technical skills: Financial Accounting (FA), Bookkeeping (B), Management Accounting (MA), Taxation (TX), Taxation (TX), Audit and Assurance (AA), Finance (F), Strategy and Governance (SG), Information Technology (IT), Analytical Skills (AS), Integrative Thinking (IN).

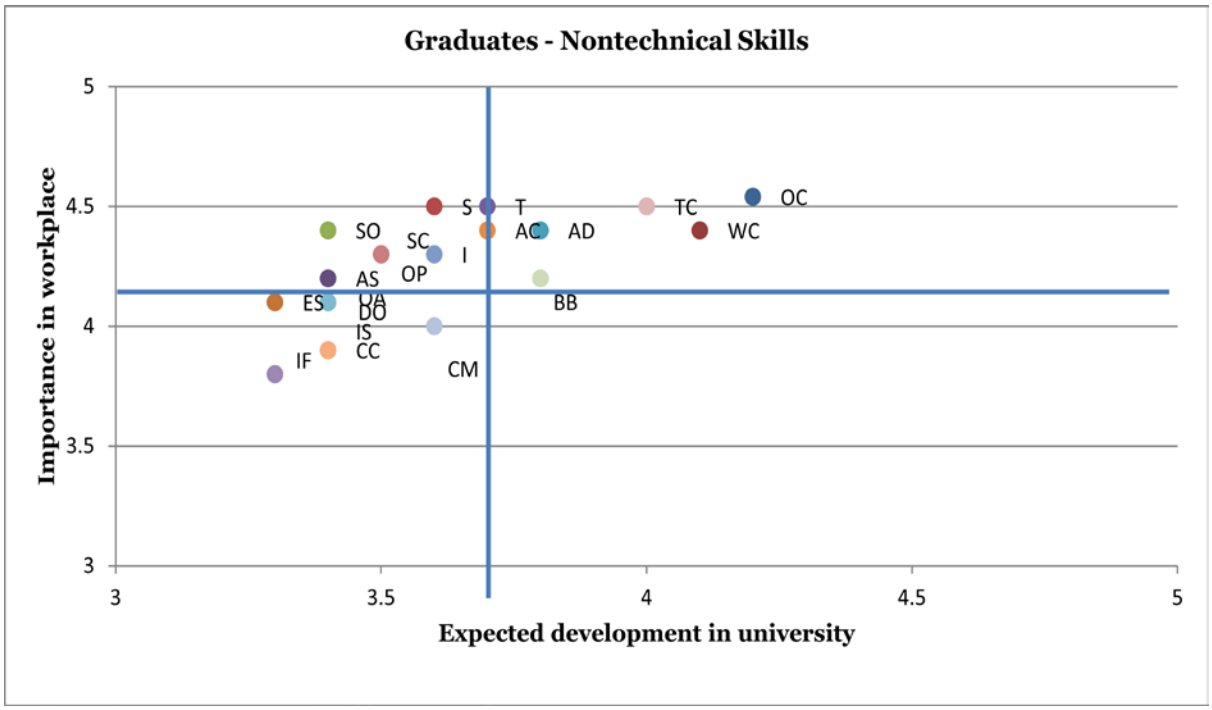

Figure 5: Nontechnical skills, importance vs. expected development in university**

** Oral Communication (OC), Written Communication (WC), Emotional Self-Awareness (ES), Accurate Self-Assessment (AS), Self-Confidence (SC), Empathy (E), Organizational Awareness (OA), Service (S), Self-Control (SO), Transparency (T), Adaptability (AD), Achievement (AC), Initiative (I), Optimism (OP), Inspiration (IS), Influence (IF), Developing Others (DO), Change Catalyst (CC), Conflict Management (CM), Teamwork and Collaboration (TC), Building Bonds (BB).

In summary, the views of employers and graduates were similar with respect to the importance of a skill area and the extent to which it should be developed in university accounting programs. Both groups did not identify any technical skills that were important and should not developed in university. Also, employers and graduates acknowledge the importance of certain emotional intelligence skills but do not have expectations that they be developed in university accounting programs. There is a small gap between employers and graduate attitudes about the expected correspondence between the importance of technical skills and their development in university accounting programs. Like employers, graduates view nontechnical skill development in university accounting programs as being less critical than technical skills development. Graduates also expect less correspondence than employers with respect to nontechnical and more specifically emotional intelligence skills development in university accounting programs.

Importance of skills vs. extent of development in graduates

While there was no hypothesis that examined the relationship between the importance of a skill vs. the extent of development of that skill in graduates, these attributes were mapped. The importance scores are in the ordinate (vertical) axis while the abscissa (horizontal) axis displays the extent of development in graduates scores. The overall mean score for all skills divides the map into 4 areas. These four areas will graphically show above average and below average areas in terms of importance and development of the skill in graduates for the 31 skill areas. An example of this type of strategic map is represented below in Figure 6.

For these series of strategic maps an area of interest will be Area 1 where we find skills that have above average importance but below average development in graduates. Figure 7, below, shows the strategic map for employer attitudes in terms of importance and extent of development in accounting graduates for technical skills with both mapped against the same overall skills mean score average. The technical skills in Area 1, as displayed in Figure 7, were integrative thinking and bookkeeping. Area 2 contains the skills that are of high importance and are seen as being highly developed in graduates. Employers rated the technical skills of financial accounting, analytical skills and audit and assurance in this category. In Area 3 the

skills of finance, taxation and strategy and governance were viewed as having low importance and low development in graduates. Area 4 contains the skills that were viewed as having low importance but high development in accounting graduates. It is interesting to note that employers reported information technology in this area.

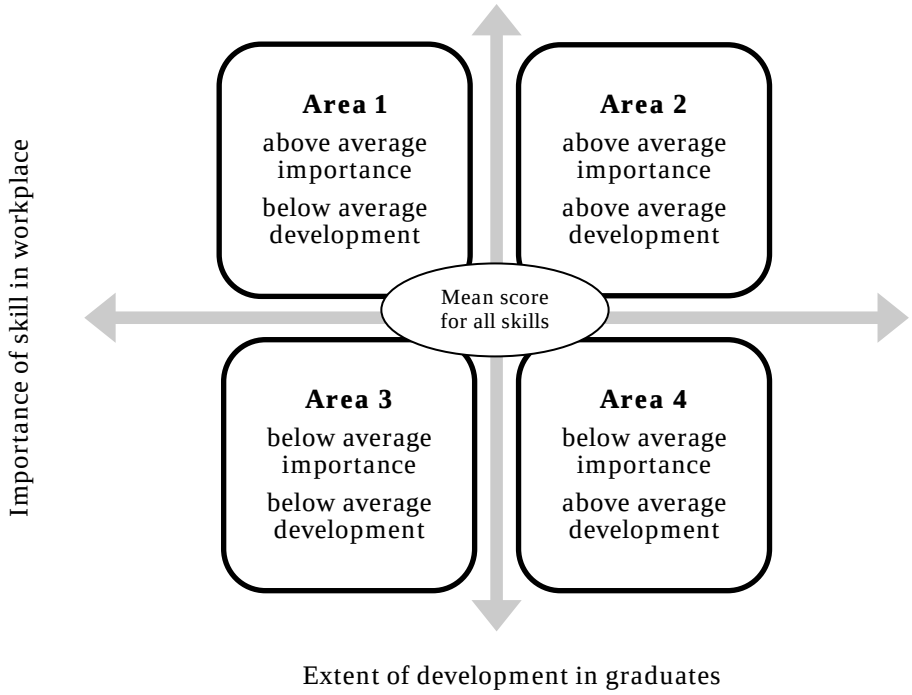

Figure 6: Strategic map example, importance vs. extent of development in graduates

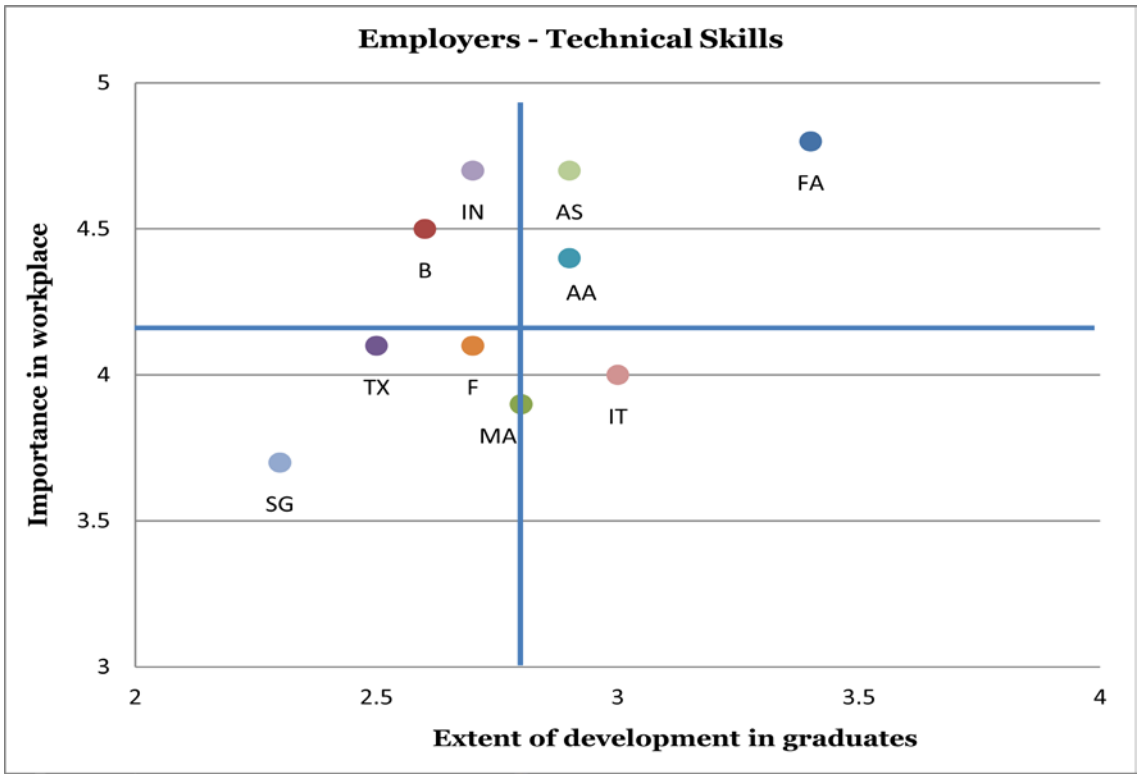

Figure 7: Technical skills*, importance vs. extent of development in graduates

* Technical skills: Financial Accounting (FA), Bookkeeping (B), Management Accounting (MA), Taxation (TX), Taxation (TX), Audit and Assurance (AA), Finance (F), Strategy and Governance (SG), Information Technology (IT), Analytical Skills (AS), Integrative Thinking (IN).

Figure 8 shows the strategic map for employer attitudes in terms of importance and extent of development in accounting graduates for nontechnical skills with both mapped against the same overall skills mean score average. The nontechnical skills, displayed in Area 1 (above average importance, below average development) for employers included written communication and the EI skills of initiative and service. Employers identified several nontechnical skills in Area 2 where the skills were ranked as important and highly developed in graduates. These skills were oral communication and the emotional intelligence skills of self-control, transparency, achievement, adaptability and teamwork and collaboration. Also, in Area 3 the emotional intelligence skills of accurate self-assessment, developing others, emotional self-awareness, empathy, inspiration, influence, change catalyst and conflict management were viewed as having low importance and low development in graduates. It is interesting to note that employers ranked no nontechnical skills in Area 4 where skills with low importance and high development in graduates would be found.

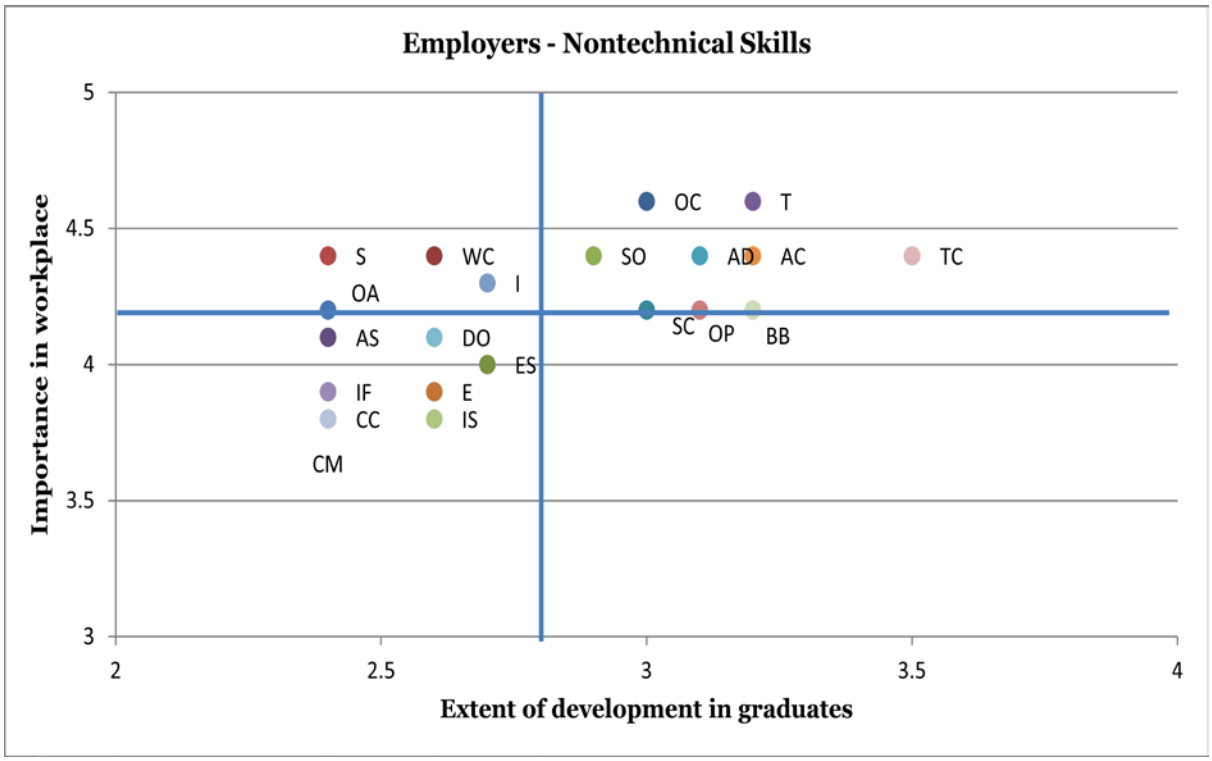

Figure 8: Non-technical skills, importance vs. extent of development in graduates**

** Oral Communication (OC), Written Communication (WC), Emotional Self-Awareness (ES), Accurate Self-Assessment (AS), Self-Confidence (SC), Empathy (E), Organizational Awareness (OA), Service (S), Self-Control (SO), Transparency (T), Adaptability (AD), Achievement (AC), Initiative (I), Optimism (OP), Inspiration (IS), Influence (IF), Developing Others (DO), Change Catalyst (CC), Conflict Management (CM), Teamwork and Collaboration (TC), Building Bonds (BB).

Figures 9 and 10, below, represent the graduate versions of the strategic mapping of skill importance and extent of development in graduates. As illustrated in Figure 9, while graduates identified three technical skills (information technology, taxation and strategy and governance) as below average on the development scale these were also below average in terms of perceived importance. Graduates reported no technical skill as being of high importance in the workplace and low development (Area 1). Again, this might be indicative of a self reporting bias. However, in Area 4 of Figure 9 the technical skills of finance and management accounting were noted as being highly developed but of low importance. For the nontechnical skills, in Figure 10, graduates identified three skill areas that were important but the extent of development below the mean score. These skills in Area 1 are the EI skills of service, self-confidence and self-control. Graduates identified no nontechnical skills in Area 4 of Figure 10 which would reflect low importance and high development.

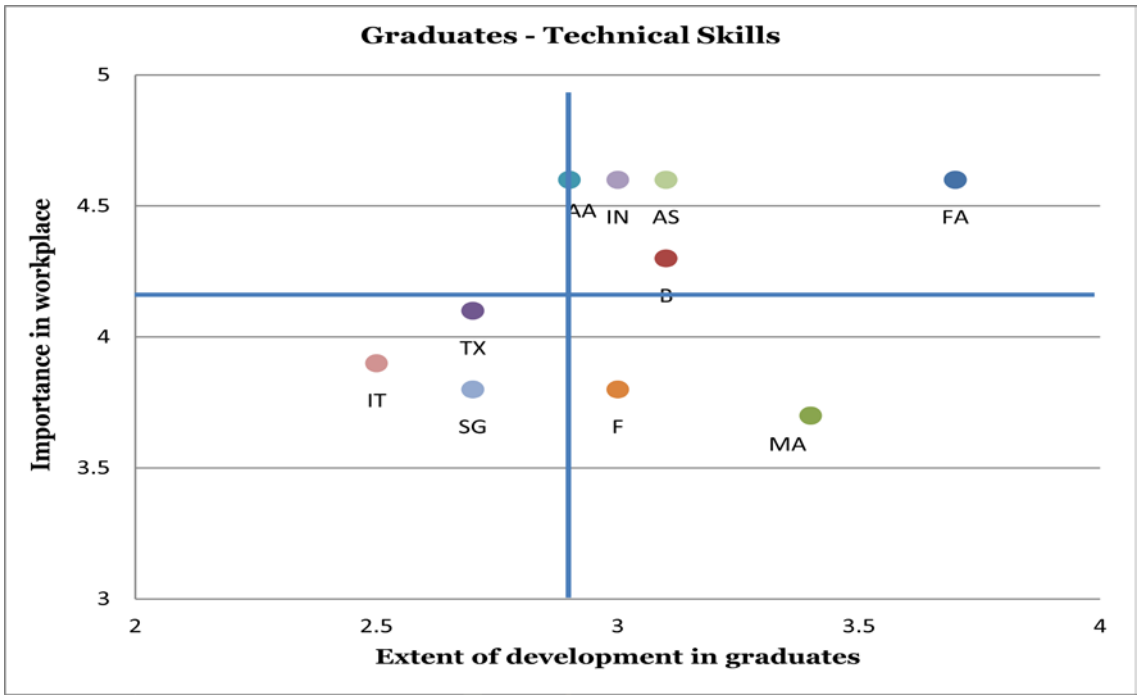

Figure 9: Technical skills*, importance vs. extent of development in graduates

* Technical skills: Financial Accounting (FA), Bookkeeping (B), Management Accounting (MA), Taxation (TX), Taxation (TX), Audit and Assurance (AA), Finance (F), Strategy and Governance (SG), Information Technology (IT), Analytical Skills (AS), Integrative Thinking (IN).

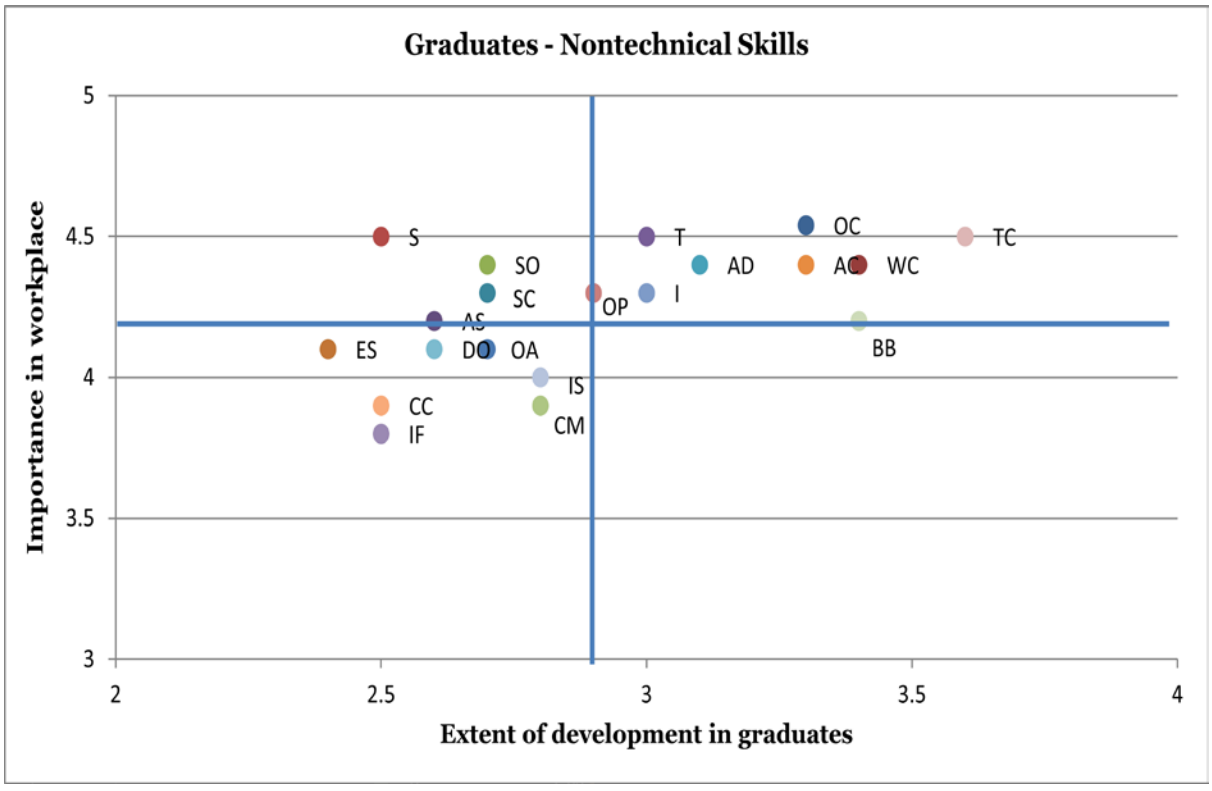

Figure 10: Nontechnical skills, importance vs. extent of development in graduates**

** Oral Communication (OC), Written Communication (WC), Emotional Self-Awareness (ES), Accurate Self-Assessment (AS), Self-Confidence (SC), Empathy (E), Organizational Awareness (OA), Service (S), Self-Control (SO), Transparency (T), Adaptability (AD), Achievement (AC), Initiative (I), Optimism (OP), Inspiration (IS), Influence (IF), Developing Others (DO), Change Catalyst (CC), Conflict Management (CM), Teamwork and Collaboration (TC), Building Bonds (BB).

Analysis of employer and graduate attributes

It was anticipated that the responses to the three questions in section one of the questionnaires about the various skills areas might vary according to the various attributes of the respondents. Thus, there was a potential opportunity to offer new insights with respect to the population characteristics in keeping with descriptive research design.

Graduate responses to the three main questions in the survey were analyzed by use of independent samples t-tests for statistically significant differences between the attributes of type of office (national vs. local firm), type of degree (business vs. business co-operative) and gender. The results of this analysis are summarized in Tables 15-17.

Table 15 presents significant differences in graduate responses for all three main survey questions according to whether the graduate worked in a national or local office. As noted in Table 3 presented earlier, over 85% of graduate respondents worked in either a national or local accounting firm. As Table 15 indicates there were only five skills that had significant differences in means scores by office type. The scores for respondents from national offices were higher than the scores of respondents from local offices for four of these five skills. The only skill found to have significant difference and a higher mean score for local firm respondents was audit and assurance.

Table 15. Graduate responses - national firm vs. local firm

Survey Question	Significant Results	Difference in Means
1. Indicate how important or not each skill area is in the workplace.	management accounting audit and assurance empathy teamwork and collaboration	-0.29** 0.18** -0.32** -0.27**
3. Indicate the extent to which each skill area was developed as part of your university accounting program.	bookkeeping	-0.54*
4. Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program	None	N/A

* significant at 0.01 level ** significant at 0.05 level

Table 16, below, presents significant differences in graduate responses for all three main survey questions according to degree type. Business and business co-operative graduates were profiled because both degrees accounted for over 93% of graduate respondents (see Table 3). As Table 16 indicates there were only two technical skills - financial accounting and audit assurance that had statistically significant results. For these two skills respondents with a co-operative business degree had higher mean scores than respondents with a regular business degree. There were no significant differences in graduate responses for any of the nontechnical skills for the two types of business degrees.

Table 16. Graduate Responses - business degree vs. co-operative business degree

Survey Question	Significant Results	Difference in Means
1. Indicate how important or not each skill area is in the workplace.	None	N/A
3. Indicate the extent to which each skill area was developed as part of your university accounting program.	financial accounting	0.30**
4. Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program	financial accounting audit and assurance	0.20** 0.23**

* significant at 0.01 level ** significant at 0.05 level

Table 17, presented below, displays the significant graduate survey results by gender. This attribute had many statistically significant differences. The responses to question one about the importance of the skill were significantly different between male and female graduates for 12 of the 31 skill areas. In all of the 12 skills the female graduate respondents had higher mean scores than the male graduate respondents as to how important the skill area was in the workplace. In the responses to question three about the extent graduates believe each skill area should have been developed as part of their university accounting programs, significant differences were found for half of the technical skills. In all cases the mean score for female respondents were higher than the mean score for male respondents. Further discussion of these findings will take place in the "Conclusions and Recommendations" section of the DBA thesis.

Table 17. Graduate responses - gender

Survey Question	Significant Differences	Difference in Means
1. Indicate how important or not each skill area is in the workplace.	financial accounting bookkeeping strategy and governance integrative thinking oral communications written communications accurate self-assessment adaptability achievement optimism conflict management teamwork and collaboration	0.21** 0.29* 0.35* 0.28* 0.33* 0.38* 0.22** 0.20** 0.19** 0.27* 0.30** 0.29*
3. Indicate the extent to which each skill area was developed as part of your university accounting program.	No significant differences found.	N/A
4. Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program	bookkeeping management accounting audit and assurance analytical skills integrative thinking	0.24** 0.27** 0.30** 0.29* 0.23**

* significant at 0.01 level ** significant at 0.05 level

Employer responses to the three main questions in the survey were analyzed by use of independent samples t-tests for statistically significant differences between the attributes of type of office (national vs. local firm), area of specialization (auditing vs. taxation) and number of articling students in the office (less than three vs. four to seven). The results of this analysis are summarized in Tables 18-20.

Table 18, below, presents significant differences in employer responses for all three main survey questions according to whether the employer was from a national or local office. As noted earlier in Table 4, over 82% of employer respondents worked in either a national or local accounting firm. As Table 18 indicates there were only three skills that had significant differences in means scores by office type. The scores for respondents from national offices were higher than the scores of respondents from local offices for each of these three skills.

Table 18. Employer responses - national firm vs. local firm

Survey Question	Results	Difference in Means
Indicate how important or not each skill area is in the workplace.	influence	-0.44**
Indicate the extent to which each skill area was developed in the recent graduates hired by your organization.	No significant differences found.	N/A
Indicate the extent to which you believe each skill area should be developed in university accounting programs.	management accounting building bonds	-0.56** -0.52**

* significant at 0.01 level ** significant at 0.05 level

Table 19, below, presents significant differences in employer responses for all three main survey questions according to area of work specialization. While the majority of employer respondents worked in the area of auditing, for anecdotal reasons, it was decided to investigate whether there were significant differences in results based on whether the employer worked in auditing or taxation. In a public accounting firm it is common for these two areas of specialization to be seen as requiring different skill sets. As Table 19 shows there were only four skills that had significant differences in means scores by type of specialization. The tax employers had higher mean scores than the auditing employers for all of these skills except bookkeeping.

Table 19. Employer responses - auditing vs. tax specialization

Survey Question	Results	Difference in Means
Indicate how important or not each skill area is in the workplace.	bookkeeping adaptability initiative	-0.47** 0.25* 0.52**
Indicate the extent to which each skill area was developed in the recent graduates hired by your organization.	transparency	0.88*
Indicate the extent to which you believe each skill area should be developed in university accounting programs.	No significant differences found.	N/A

* significant at 0.01 level ** significant at 0.05 level

Finally, Table 20, below, presents significant differences in employer responses for all three main survey questions according to whether the respondent worked in an office that had less than 3 articling students or between four to seven articling students. As noted earlier in Table 4, 44.8% of employer respondents had less than three articling students in their office and 46.2% had between four to seven articling students. As Table 20 shows there were only five skills that had significant differences in means scores and four of these were emotional intelligence competencies. For all skills in Table 20, the mean score for employers that had four to seven articling students was higher than the mean scores for employers with less than 3 articling students, except for the EI skill of initiative.

Table 20. Employer responses - number of articling students (less than 3 vs. 4-7)

Survey Question	Results	Difference in Means
Indicate how important or not each skill area is in the workplace.	analytical skills	0.27**
Indicate the extent to which each skill area was developed as part of your university accounting program.	inspiration	-0.59**
Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program	initiative developing others teamwork and collaboration	0.51** 0.58** 0.55*

* significant at 0.01 level ** significant at 0.05 level

In general, with the exception of graduate responses by gender, there were not many statistically significant differences in the employer and graduate results by attribute. The final section of the paper will present the concluding remarks and next steps for the study.

Concluding Remarks

The results of this study have shown that employers and graduates have similar attitudes towards the skills seen as important or not in the accounting workplace. Employers ranked technical skills slightly higher in importance than graduates but the differences between both groups for nontechnical and specifically EI skills was not significant. These finding suggest that a gap about the importance of the professional skill set requirements for professional accountants from employer and graduate perspectives is not that substantial.

While graduates have more favorable beliefs than employers about their personal development in certain skills, both groups did share certain attitudes about the extent of skill development in graduates. Technical skills like financial accounting along with the emotional intelligence competencies of building bonds and teamwork and collaboration are seen as highly developed by employers and graduates. Other emotional intelligence skills like service and change catalyst are viewed as being poorly developed. On an overall basis employers rated skill development in graduates for all technical and all nontechnical skills as exactly the same. Employers, however, were more concerned about technical skill development rather than nontechnical skill development in university accounting programs.

Employers and graduates share similar perspectives about the expected development of skills in university accounting programs as both groups rated technical skills higher than nontechnical (and specifically emotional intelligence skills) for university development. Also, both employers and graduates acknowledge the importance of certain emotional intelligence skills in the accounting workplace but do not have expectations that they be developed in university accounting programs.

While many studies have identified gaps or lack of correspondence between the university accounting curriculum and the accounting workplace, the findings of this study suggest that the gap may not be as big as expected. These results also indicate that employers of accounting graduates have more concerns over technical skill development than nontechnical skill development in university accounting programs. Thus, correspondence between employer requirements and the university accounting curriculum is of more concern for technical skills rather than nontechnical or emotional intelligence skills.

These findings, including the implications for accounting education, will be discussed further in "Section 3: Conclusions and Recommendations" the DBA thesis. The contributions to practice and theory and suggestions for future research will also be discussed in this section.

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Appendix A: Final Online Version of Surveys

Page 1

Accounting Employer Survey

This questionnaire is designed to examine the perceptions of employers of accounting graduates about various skills in university accounting programs and the workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10-15 minutes to complete. The survey will time out after 60 minutes and responses will not be saved so please ensure you complete the survey within this time period.

Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Thank-you for your co-operation and time.

Peggy Coady, FCA
Memorial University of Newfoundland

Page 2

Section A

In this four-part section you will be asked a number of questions about various skills. On the basis of your experience please select the appropriate response.

1. **Indicate how important or not you believe each skill area is in the workplace.**

	Very unimportant	Unimportant	Neutral	Important	Very important
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance	○	○	○	○	○

within an organization, strategy formulation)					
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of	○	○	○	○	○

excellence)					
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

2. **Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?**

	Nontechnical skills not as important as technical skills	Nontechnical skills equally important to technical skills	Nontechnical skills more important than technical skills
Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?	○	○	○

3. **Indicate the extent to which each skill area is developed in the recent university accounting graduates your organization has hired.**

	Poor	Fair	Good	Very Good	Excellent
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○

2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and	○	○	○	○	○

political networks in an organization)					
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

4. **Indicate the extent to which you believe each skill area should be developed in university accounting programs.**

	No development	Some development	Good development	Very good development	Excellent development
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○

14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration**(inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict**					

Management (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

Section B

The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

5. **Your Position**

- ○ Partner
- ○ Senior Manager
- ○ Manager
- ○ CFO/Controller
- ○ Other

6. **Work Location:**

- ○ Bermuda
- ○ Newfoundland & Labrador
- ○ New Brunswick
- ○ Nova Scotia
- ○ Prince Edward Island

7. **Type of Approved CA Training Office you work in**

- ○ national firm (offices across Canada)
- ○ regional firm (offices in some Canadian provinces)
- ○ local firm (offices in just one province)
- ○ industry
- ○ government

8. **Area of work specialization**

- ○ Financial accounting
- ○ Management accounting
- ○ Audit/Assurance
- ○ Tax

- ○ Insolvency
- ○ Other

9. **Approximate number of articling CA students in your office this year**
   - ○ Less than 3
   - ○ 4 - 7
   - ○ more than 7

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Accounting Graduate Survey

This questionnaire is designed to examine the perceptions of accounting graduates about various skills in university accounting programs and the workplace.

Your participation, which is voluntary, is very important to the survey's findings. The questionnaire will take approximately 10-15 minutes to complete. The survey will time out after 60 minutes and responses will not be saved so please ensure you complete the survey within this time period.

Your name will not be recorded on the questionnaire and results will only be communicated at an aggregate level. Informed consent is deemed as given through participation in the survey.

Thank-you for your co-operation and time.

Peggy Coady, FCA
Memorial University of Newfoundland

Page 2

Section A

In this four-part section you will be asked a number of questions about various skills. On the basis of your experience please select the appropriate response.

1. **Indicate how important or not you believe each skill area is in the workplace.**

	Very unimportant	Unimportant	Neutral	Important	Very Important
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance	○	○	○	○	○

within an organization, strategy formulation)					
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of	○	○	○	○	○

excellence)					
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

2. **Overall how would you rate the importance, in the workplace, of nontechnical skills compared to technical skills?**

	Nontechnical skills not as important as technical skills	Nontechnical skills equally important to technical skills	Nontechnical skills more important than technical skills
Overall how would you rate the importance, in the accounting workplace, of nontechnical skills compared to technical skills?	○	○	○

3. **Indicate the extent to which each skill area was developed as part of your university accounting program.**

	Poor	Fair	Good	Very Good	Excellent
1. **Financial Accounting**					

(interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-Awareness** (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○

17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○
28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

4. **Indicate the extent to which you believe each skill area should have been developed as part of your university accounting program.**

	No Development	Some development	Good development	Very good development	Excellent development
1. **Financial Accounting** (interpretation and application of relevant accounting standards)	○	○	○	○	○
2. **Bookkeeping** (bank reconciliation, journal entry preparation, monthly accounting)	○	○	○	○	○
3. **Management Accounting** (budgeting, costing, performance measurement)	○	○	○	○	○
4. **Taxation** (personal and corporate tax preparation)	○	○	○	○	○
5. **Audit and Assurance** (financial statement auditing and other assurance services)	○	○	○	○	○
6. **Finance** (financial analysis and planning)	○	○	○	○	○
7. **Strategy and Governance** (role of corporate governance within an organization, strategy formulation)	○	○	○	○	○
8. **Information Technology** (proficiency in the latest information technology sources)	○	○	○	○	○
9. **Analytical Skills** (articulating and solving problems)	○	○	○	○	○
10. **Integrative Thinking** (critical thinking of many factors when solving a problem)	○	○	○	○	○
11. **Oral Communication** (effective listening, understanding, speaking)	○	○	○	○	○
12. **Written Communication** (writing with clarity and precision)	○	○	○	○	○
13. **Emotional Self-**					

Awareness (recognizing one's emotions and their effects)	○	○	○	○	○
14. **Accurate Self-Assessment** (knowing one's strengths and limits)	○	○	○	○	○
15. **Self-Confidence** (sureness about one's self-worth and capabilities)	○	○	○	○	○
16. **Empathy** (sensing others' feelings and perspective)	○	○	○	○	○
17. **Organizational Awareness** (the ability to read social and political networks in an organization)	○	○	○	○	○
18. **Service** (anticipating, recognizing and meeting client needs)	○	○	○	○	○
19. **Self-Control** (keeping disruptive emotions and impulses under control)	○	○	○	○	○
20. **Transparency** (displaying honesty, integrity and trustworthiness)	○	○	○	○	○
21. **Adaptability** (flexibility in adapting to changing situations or overcoming obstacles)	○	○	○	○	○
22. **Achievement** (striving to improve or meet a standard of excellence)	○	○	○	○	○
23. **Initiative** (readiness to act and seize opportunities)	○	○	○	○	○
24. **Optimism** (persistence in pursuing goals despite obstacles and set-backs)	○	○	○	○	○
25. **Inspiration** (inspiring and guiding people)	○	○	○	○	○
26. **Influence** (using effective tactics of persuasion)	○	○	○	○	○
27. **Developing Others** (encouraging others' abilities through feedback and guidance)	○	○	○	○	○

28. **Change Catalyst** (initiating or managing change)	○	○	○	○	○
29. **Conflict Management** (negotiating and resolving disagreements)	○	○	○	○	○
30. **Teamwork and Collaboration** (cooperatively working with others towards a shared goal)	○	○	○	○	○
31. **Building Bonds** (cultivating and maintaining relationships)	○	○	○	○	○

Section B

The following information is more personal and will allow us to compare results by respondent profiles. Please remember that all information you provide is entirely anonymous.

5. **1. Gender**
   - ○ Male
   - ○ Female

6. **ASCA program start date**
   - ○ 2013
   - ○ 2012
   - ○ 2011 or earlier

7. **Years since university graduation**
   - ○ 1 year
   - ○ 2 years
   - ○ 3 years
   - ○ more than 3 years

8. **University Degree**
   - ○ Business/ Commerce
   - ○ Business/Commerce Co-op
   - ○ Arts
   - ○ Science
   - ○ Other

9. **Work Location:**

- ○ Bermuda
- ○ Newfoundland & Labrador
- ○ New Brunswick
- ○ Nova Scotia
- ○ Prince Edward Island

10. **Type of Approved CA Training Office you work in**

- ○ national firm (offices across Canada)
- ○ regional firm (offices in some Canadian provinces)
- ○ local firm (offices in just one province)
- ○ industry
- ○ government

11. **Amount of co-op work term experience you had when you started the ASCA program.**

- ○ none
- ○ 1 - 4 months
- ○ 5 - 8 months
- ○ 9 -12 months
- ○ more than 1 year

12. **Amount of general work experience (excluding co-op work terms) you had when you started the ASCA program.**

- ☐ less than 4 months
- ☐ 4 - 8 months
- ☐ 9 - 12 months
- ☐ 1-2 years
- ☐ more than 2 years

Appendix B: Correlations

Employers – Importance and extent should be developed in university

Skill Area	Correlation	Significance
1. Financial Accounting	0.253	0.040**
2.Bookkeeping	0.232	0.059
3.Management Accounting	0.433	0.000*
4.Taxation	0.536	0.000*
5.Audit and Assurance	0.493	0.000*
6.Finance	0.397	0.001*
7.Strategy and Governance	0.614	0.000*
8.Information Technology	0.561	0.000*
9.Analytical Skills	0.356	0.003*
10.Integrative Thinking	0.372	0.002*
11.Oral Communication	0.461	0.000*
12.Written Communication	0.393	0.001*
13.Emotional Self-Awareness	0.420	0.000*
14.Accurate Self-Assessment	0.412	0.001*
15.Self-Confidence	0.293	0.017**
16.Empathy	0.327	0.008*
17.Organizational Awareness	0.347	0.004*
18.Service	0.327	0.007*
19.Self-Control	0.278	0.024*
20.Transparency	0.125	0.315
21.Adaptability	0.228	0.064
22.Achievement	0.265	0.030**
23.Initiative	0.211	0.087
24.Optimism	0.338	0.005*
25.Inspiration	0.371	0.002*
26.Influence	0.532	0.000*
27.Developing Others	0.396	0.001*
28.Change Catalyst	0.512	0.000*
29.Conflict Management	0.451	0.000*
30.Teamwork and Collaboration	0.374	0.002*
31.Building Bonds	0.387	0.001*

*significant at 0.01 level **significant at 0.05 level

Graduates – Importance and extent should be developed in university

Skill Area	Correlation	Significance
1. Financial Accounting	0.321	0.000*
2.Bookkeeping	0.491	0.000*
3.Management Accounting	0.293	0.000*
4.Taxation	0.297	0.000*
5.Audit and Assurance	0.182	0.010*
6.Finance	0.267	0.000*
7.Strategy and Governance	0.319	0.000*
8.Information Technology	0.344	0.000*
9.Analytical Skills	0.216	0.002*
10.Integrative Thinking	0.281	0.000*
11.Oral Communication	0.254	0.000*
12.Written Communication	0.243	0.001*
13.Emotional Self-Awareness	0.298	0.000*
14.Accurate Self-Assessment	0.371	0.000*
15.Self-Confidence	0.469	0.000**
16.Empathy	0.389	0.000*
17.Organizational Awareness	0.351	0.000*
18.Service	0.142	0.045**
19.Self-Control	0.255	0.000*
20.Transparency	0.314	0.000*
21.Adaptability	0.291	0.000*
22.Achievement	0.269	0.000**
23.Initiative	0.246	0.000*
24.Optimism	0.292	0.000*
25.Inspiration	0.372	0.000*
26.Influence	0.285	0.000*
27.Developing Others	0.188	0.008*
28.Change Catalyst	0.348	0.000*
29.Conflict Management	0.236	0.001*
30.Teamwork and Collaboration	0.363	0.000*
31.Building Bonds	0.256	0.001*

*significant at 0.01 level **significant at 0.05 level

SECTION 3:
Conclusion and Recommendations

Introduction

Section 3 of the Doctorate of Business Administration (DBA) thesis discusses the results from an investigation of employer and graduate attitudes on the skill set requirements for professional accountants and whether university accounting programs develop these skills and in particular the emotional intelligence (EI) skills an accounting graduate needs. Section 3 will discuss the conclusion and recommendations of the study including the implications for accounting education. The limitations, contributions to practice and theory and suggestions for future research will also be included in this section.

There were 31 skills investigated in the study consisting of technical and nontechnical skills and these are listed in Table 1 below. To distinguish the skill set components, technical skills (n=10) have normal formatting, the nontechnical skills (n=21) are shaded and the EI skills (n=19) are shaded and underlined. This convention will be used in all tables in Section 3.

Table 1: Skills in questionnaires

1. Financial Accounting (FA)	17. Organizational Awareness (OA)
2. Bookkeeping (B)	18. Service (S)
3. Management Accounting (MA)	19. Self-Control (SO)
4. Taxation (TX)	20. Transparency (T)
5. Audit and Assurance (AA)	21. Adaptability (AD)
6. Finance (F)	22. Achievement (AC)
7. Strategy and Governance (SG)	23. Initiative (I)
8. Information Technology (IT)	24. Optimism (OP)
9. Analytical Skills (AS)	25. Inspiration (IS)
10. Integrative Thinking (IN)	26. Influence (IF)
11. Oral Communication (OC)	27. Developing Others (DO)
12. Written Communication (WC)	28. Change Catalyst (CC)
13. Emotional Self-Awareness (ES)	29. Conflict Management (CM)
14. Accurate Self-Assessment (AS)	30. Teamwork and Collaboration (TC)
15. Self-Confidence (SC)	31. Building Bonds (BB)
16. Empathy (E)	

The study explored three main areas: importance of skills, extent of development of skills in graduates and expected development of skills in university accounting programs. Each of these three areas will be discussed separately first. As a summary, Table 2 below contains the scales and mean scores from the surveys for each area for employers and graduates to give an overall perspective on the skills questions investigated.

Table 2: Scales and mean scores for survey areas

	Employers Mean Score	Graduates Mean Score	Scale
Importance of skill	4.22	4.22	Very unimportant (1) to very important (5)
Extent of development in graduates	2.78	2.92	Poor (1) to excellent (5)
Expected development in university	3.64	3.74	No development (1) to excellent development (5)

After examining each area separately, the importance of skills will be discussed in the context of expected development in university and next in the context of extent of development in graduates. These three areas will then be analyzed together in an integrated analysis using priority indices. Finally, the findings for employer and graduate attributes will be reviewed.

Thus, in summary, the seven main areas addressed in Section 3 will be:

- Importance of skills
- Extent of development of skills in graduates
- Expected development of skills in university accounting programs
- Importance of skills vs. expected development of skills in university accounting programs
- Importance of skills vs. extent of development of skills in graduates
- Integration of skills analyses
- Employer and graduate attributes

The conclusion section will have multiple sub-sections that examine the research questions and hypotheses in the context of the results obtained. At the end of each sub-section there will be a summary box of the key findings for that sub-section.

Importance of skills

Research questions 1 and 2 in the study were:

1. What technical and nontechnical skills are viewed as important by accounting graduates in the accounting workplace?

2. What technical and nontechnical skills are viewed as important by accounting employers in the accounting workplace?

Overall, both employers and graduates did consider 24 of the 31 skills to be important or very important in the workplace. Hassall *et al. (*2005) had similar findings in their survey of employers in Spain and the UK.

One of the main observations in the importance area was that employers and graduates had very similar attitudes about what technical and nontechnical skills are important in the accounting workplace. The mean importance score for all skills for employers and graduates was the same (4.2) and both groups shared common perspectives on the most important and least important individual skills. Four skills (financial accounting, analytical skills, integrative thinking and oral communication) were ranked in the top five by both employers and graduates. Three skills (management accounting, change catalyst and strategy and governance) rated in the bottom five by both employers and graduates were the same. Employers ranked technical skills significantly higher in importance than graduates. Furthermore there was a statistically significant difference found within the employer ratings with technical skills having a higher mean score for importance than EI skills.

Some aspects of the study's results were consistent with the findings for individual skills from other studies in the field. Carr *et al.* (2006) noted that financial accounting has traditionally been considered the most important component in the accounting curriculum. Kavanagh and Drennan (2008) found that the skills suggested as most important by graduating students for career success in the accounting field were: communication skills (oral and written), teamwork, analytical and problem solving, decision making, critical thinking and leadership and interpersonal skills. They also reported that the top three skills valued by accounting employers were analytical skills, business awareness/real life experience and basic accounting skills (Kavanagh and Drennan, 2008).

The finding of the study that technical skills ranked higher in importance for employers than nontechnical skills (including EI) marks a significant departure from much of previously published research on skill deficiencies in accounting students. Even as early as 1979 it was acknowledged that communication skills were ranked as more important than technical skills by accounting employers (Estes, 1979). The ability to communicate and get along with others was seen as the most important skill of graduating students by the executives surveyed by Aiken *et al*. (1994). Novin *et al. (*1990) found that there was a need for writing, listening and verbal communication skills in the accounting curriculum in their study of accounting practitioners. Similarly other researchers have noted the importance of communication skills for accounting students (Rebele, 1985; Simons *et al*., 1995; Zaid and Abraham, 1994). Finally, more recent studies have found that employers ranked nontechnical skills above technical skills when asked to identify what skills they look for in accounting graduates (Jackling and DeLange, 2009; Pan and Perera, 2012).

There was also an unexpected result from the study with respect to the graduate responses regarding the importance of skills in the workplace. While it was not a significant difference, graduates did rate nontechnical skills slightly higher in importance than technical skills. These findings for graduates were not consistent with research in the area as many studies have found that accounting students rate technical skills higher in importance than nontechnical skills (Jackling and DeLange, 2009; Stivers & Onifade, 2011; Usoff and Feldmann, 1998). While the data do not provide answers to this unexpected result, possible interpretations of this might be that universities have addressed the concerns raised over the years regarding nontechnical skill development in university.

As discussed, some of the findings of the study differed from those previously reported in the literature. It can be contended that the emphasis on nontechnical skill development in the last 10 years may have helped address the previous perceived gaps in accounting education. After years of concern for nontechnical skills by employers, the focus may have now switched to technical skills. This is plausible given that the work of a professional accountant has become increasingly complex in recent years due to the adoption of international accounting standards, increased regulations and the globalization of business. These changes might have elevated the status of technical accounting courses in the eyes of employers and graduates. Similarly, the argument can be made that accounting graduates have benefited from the focus on nontechnical skills in recent years such that they now appreciate their importance in the work place.

The first hypothesis in the study was:

H1 - There is a gap between the attitudes of accounting employers and graduates about the importance of emotional intelligence skills required in the accounting workplace.

Hypothesis one, focusing specifically on the importance of emotional intelligence skills in the workplace, was not supported by the data collected as significant differences in attitudes between employers and graduates were not found. A significant difference in attitudes between importance of emotional intelligence skills vs. technical skills in the workplace for employers was found with technical skills receiving a higher rating.

Given the literature review, it was expected that there would be a gap between the attitudes of accounting employers and graduates about the importance of skills, particularly the emotional intelligence skills, required in the accounting workplace. The findings suggest that a gap about the importance of the professional skill set requirements for professional accountants from employer and graduate perspectives is not as big as previously published research suggests. Also, it was expected that employers would place more value on nontechnical skills while graduates would rank technical skills as being more important. The results of the study contradict the literature in that employers value technical skills higher than nontechnical skills while graduates rate nontechnical skills slightly higher than technical skills.

A summary of the key findings in this area are included below.

#1 *- Employers and graduates had very similar attitudes about what technical and nontechnical skills are important in the accounting workplace*

#2 *- Employers and graduates rated 24 of the 31 skill areas as being important or very important in the workplace.*

#3 *- Employers rank technical skills higher than nontechnical (including EI) for importance in the workplace.*

#4 *- There is an insignificant gap between the attitudes of accounting employers and graduates about the importance of the professional skill set, including EI skills, required in the accounting workplace.*

The importance of skills will be revisited in the context of the other main areas of the study (extent of development in graduates and expected development in university) later in Section 3. The next section discusses the results for extent of development in graduates.

Extent of development of skills in graduates results

Research questions 3 and 4 in the study were:

3. To what extent do accounting graduates believe that these technical and nontechnical skills have been developed in university accounting programs?

4. To what extent do accounting employers believe that these technical and nontechnical skills have been developed in university accounting programs?

Overall, both employers and graduates did not consider many of the 31 skills to have very good or excellent development in graduates. Employers and graduates only ranked nine and 14 skills respectively with a mean score above 3.0 indicating that the skill had very good development. This is concerning for university accounting educators.

Graduates had higher mean scores for each category of skills and this may in some part be attributable to potential bias from self-reporting by graduates in rating their own development. Technical skills such as management accounting, bookkeeping and strategy and governance received comparatively lower rankings by employers. Also, there was a significance differences between the attitudes of employers and graduates about the extent of development of technical skills in graduates with employers reporting a lower aggregate mean score.

These results were not expected given the literature suggests that there is more concern over nontechnical skill development, and in particular EI skill development, than technical skill development in accounting graduates. Research has shown that accounting students are often perceived as having poor written and oral communication skills as compared to other business students (Andrews and Koester, 1979; Andrews and Sigband, 1984; Gingras, 1987; Zaid and Abraham, 1994). More recent studies would suggest that the development of communication skills in accounting graduates is still of concern. For example, Carr *et al.* (2006) found that accounting graduates believed that there was not enough emphasis placed on communication skills in their accounting curriculum. These results were similar to the findings of an Australian study that found that the skills deemed most lacking in accounting graduates by stakeholders and impeding career advancement were communications and problem solving (Hancock *et al.,* 2009a; 2009b; 2009c). Kavanagh and Drennan (2008) observed that while there is some commonality between student perceptions and employer expectations regarding skill set requirements, significant gaps still exist for oral communication, written communication and teamwork. Likewise, Bui & Porter (2010) reported that accounting graduates were lacking in writing skills, in applying knowledge to practical situations, and in understanding the requirements of working as a member of a team in the accounting profession.

Areas of common ground between employers and graduates were found for technical skills like financial accounting (ranked second and first respectively) along with the emotional intelligence skills of teamwork and collaboration (ranked first and second respectively) and building bonds (ranked fourth and third respectively). Both groups view many of the other EI skills such as service and change catalyst as being on the lower end of the development scale.

The second hypothesis in the study was:

H2 - There is a gap between the attitudes of accounting employers and graduates about the extent of the development of the emotional intelligence skills of accounting graduates.

Hypothesis two, specifically focusing on emotional intelligence skills, was not strongly supported by the data collected from employers and graduates. The findings suggest that there is a bigger gap between the attitudes of accounting employers and graduates about the extent of the development of technical skills in accounting graduates. These findings were unexpected as technical skill development was not identified as a significant issue in other recent key studies in the field. When considering these findings, together with the results on the importance of skills, the study has raised some questions about technical skill development, particularly from the perspective of employers. This area will be discussed further in later sub-sections of Section 3.

Both employers and graduates considered the emotional intelligence skills of building bonds and teamwork and collaboration as being relatively well-developed in graduates. This finding is not consistent with previous EI research in accounting education. Esmond-Kiger *et al.* (2006) studied EI in university business students in the United States and their results

showed that non-accounting majors had significantly higher levels of EI than accounting majors. Kermis and Kermis (2010) concluded that certain dimensions of emotional intelligence have been found lacking in the new hires of accounting graduates. Likewise, Cook *et al.* (2011) measured the emotional intelligence of over 400 accounting and liberal arts students in Canada, South Africa and the United States using the MSCEIT (Mayer, Salovey and Caruso EI test). They concluded that accounting students lack EI skills that accounting practitioners and other potential employers believe are important. These other studies examined EI using different measurement tools and other conceptualizations of EI while the current study specifically assessed attitudes about the 19 skills in Goleman's EI framework. This might account for some of the differences in findings.

A summary of the key findings in this area are included below.

#5 - *Employers and graduates rated 22 of the 31 skills to have fair to good development in graduates.*

#6 *- There is an insignificant gap between the attitudes of accounting employers and graduates about the extent of development of the emotional intelligence skills of accounting graduates.*

#7 *- There is a significant gap between the attitudes of accounting employers and graduates about the extent of development of the technical skills of accounting graduates.*

Expected development of skills in university results

Research questions 5 and 6 in the study were:

5. Where do accounting graduates believe that accounting graduates should develop these technical and nontechnical skills?

6. Where do accounting employers believe that accounting graduates should develop these technical and nontechnical skills?

Overall, both employers and graduates did not rate any of the 31 skills as having a mean score below 3.0 indicating that there was at least good development expected in university for all skills. The overall mean score for all skills were very similar between employers (3.64) and graduates (3.74).

There were similarities in the top rated skills (i.e. those with a high expectation of development in university) between employers and graduates as three skill areas (financial accounting, oral communication and analytical skills) were in the top five for both employers and graduates. The rankings of employers and graduates attitudes were also very similar with respect to the least rated skills for development in university accounting programs. The same four EI skills (change catalyst, empathy, influence and inspiration) were ranked the lowest for development in university accounting programs.

There was a significant difference in employer attitudes for the expected development of technical skills in university compared with the expected development of nontechnical and emotional intelligence skills. Employers ranked technical skills higher. Graduates had similar attitudes in that the expected development in university was higher and significant for technical skills compared with nontechnical and EI skills. Graduates also had higher expectations for technical skill development in university than employers. This particular finding is consistent with the conclusion reached by Nicolescu and Paun (2009) who found that graduates expect more from their university education than employers.

Given the literature review completed, it was expected that both employers and graduates would feel stronger about nontechnical skill development in university. Since the late 1980's there have been many calls for university accounting education reform (AAA, 1986; Albrecht and Sack, 2000).These comprehensive studies undertaken in the United States and more recently in Australia emphasized the importance of nontechnical skill development in university accounting programs (Hancock *et al.*, 2009a; 2009b; 2009c).

In addition to comprehensive studies of accounting education, there has also been considerable research on nontechnical skills required of accounting graduates for success as professional accountants. In the research conducted by De Lange *et al.* (2006), the accounting alumni surveyed noted that interpersonal and oral communications skills were important for

their positions after graduation but were not emphasized as part of the accounting curriculum in university (2006). Kavanagh and Drennan (2008) found that accounting graduates felt that, except for basic accounting skills, not enough time was spent in university on the skills necessary for their careers. These skills were identified as: self-motivation, oral communication, negotiation, leadership and customer service.

With the exception of the results for oral communication, the current study did not reflect many of the findings of these existing studies. For example, there are many studies in the accounting education literature that had concluded there is a significant gap between what accounting students are taught and what practicing accountants do (Bui and Porter, 2010; Richardson, 2005; Siegel *et. al.*, 2010). One contention for the study's results is that the "tide is turning" with respect to university accounting education and the previous calls for reform are seeing impact.

Based on the results in this section, there was a lack of strong support for the conclusions reached in these previous studies. In particular, the gaps between accounting education and employer requirements previously alleged were not supported by the study's results. In summary, the study found that employers and graduates rated technical skills higher than nontechnical (and specifically emotional intelligence skills) for development in university accounting programs. Also, graduates had higher expectations than employers that technical skills be developed in university programs.

A summary of the key findings in this area are included below.

#8 *- Employers and graduates rated technical skills higher than nontechnical (and specifically emotional intelligence skills) for development in university accounting programs.*

#9 *- Graduates had higher expectations than employers that technical skill areas be developed in university programs.*

Importance of skill vs. expected development of skills in university

The third hypothesis in the study was:

H3: Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important in the accounting workplace and those covered in university accounting programs.

The association between importance of the skill and the belief that the skill should be developed in university accounting programs is relevant to neo-correspondence theory. Developed by Saunders and Machell (2000) neo-correspondence theory promotes correspondence between higher education and the workplace. The main focus of neo-correspondence theory is how higher education institutions should react to the requirements of employers who want graduates with a certain range of skills.

To assess the correspondence between importance of skills and their expected development in university, an integrated analysis of the two variables in a series of strategic maps was constructed and presented in Figures 2 to 5 in DBA Paper 4 (Montano *et al.*, 2001). These maps graph the mean scores collected for all skill areas. Two intersecting lines, at the overall mean score for all skills, divides the map into 4 areas. These four areas graphically show above average and below average areas in terms of importance and development for the 31 skill areas.

While the strategic maps are not re-presented here, the skill areas are extracted and comparisons are made (employers vs. graduates) for discussion purposes. An example of this type of strategic map is represented below in Figure 1.

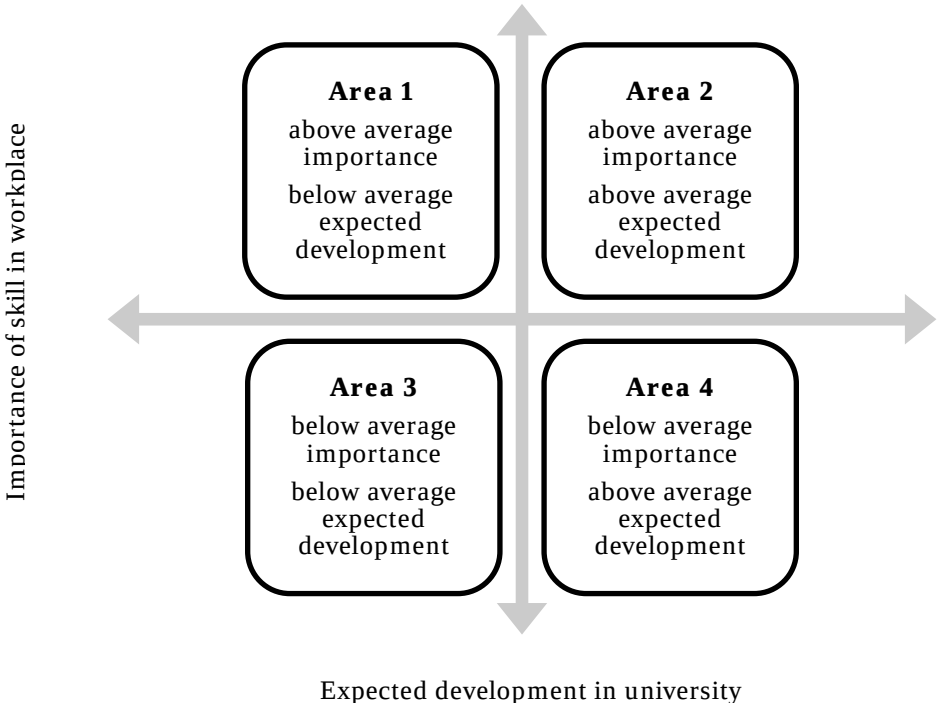

Figure 1: Strategic map interpretive guide for importance vs. expected development in university

The skills from the strategic maps for employers and graduates are summarized below by area in Tables 3 -6. It is noted that the skills in each area are not presented in an order representing ranking. These relative rankings are discussed in a later section. Skills that have similar results for employers and graduates are presented first and these are denoted with arrows. When commentary regarding the most or least ranked skill is made in an area, it is based on the distance of that skill from the epicenter in the map. Finally, discussions about skills are all relative to the average mean score and the conclusions reached about skill emphasis is made comparatively.

Skills: above average importance, below average expected development in university

In Table 3, below, the skills found in Area 1 are displayed for employers and graduates. Area 1 contains the skills that had above average importance and below average expected development in university. This area contains skills that, while important, are not expected to be developed in university.

Area 1 (employers)	**Area 1** (graduates)
self-control ↔	→ self-control
self-confidence ↔	→ self-confidence
service ↔	→ service
optimism ↔	→ optimism
organizational awareness	initiative
	accurate self-assessment
	transparency

Table 3: Above average importance, below average expected development in university (Area 1)

There were no technical skills for employers or graduates in this space. These results are not surprising for technical skills given the prevalence of technical skill development in university accounting programs. However, there were a number of EI skills and four - self-control, self-confidence, service and optimism- were the same for employers and graduates. Graduates viewed the EI skills of transparency and initiative in this area. Employers, who also consider

both of these EI skills to have above average importance, differ from graduates in that they have above average expectations for their development in university (as shown in Table 4 below).

The results in Table 3 were interesting for a number of reasons. There have been many calls in recent years for the incorporation of EI skills in university accounting programs (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al.*, 2010; Wells *et al.*, 2009). Many of these studies assessed EI using measurement tools different from that used in the study. The study used Goleman's EI framework and specifically the 19 EI skills contained therein. The findings suggest that not all 19 EI skills are appropriate for inclusion into university accounting curricula despite their importance in the workplace. This finding will be explored further in later sub-sections.

Skills: above average importance, above average expected development in university

Table 4, below, contains the skills in Area 2 which had above average importance and above average expected development in university. This area might be considered an area of priority as it does reflect skills that are seen as very important and requiring very good development in university.

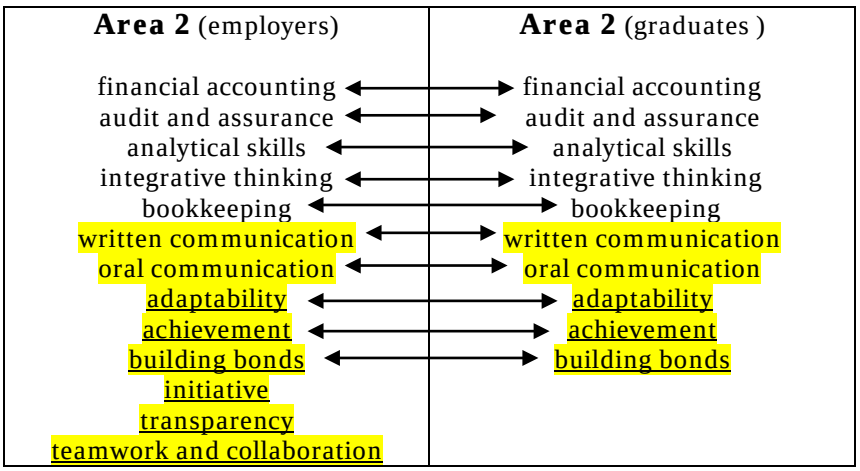

Table 4: Above average importance, above average expected development in university (Area 2)

There was correspondence for 50% of the technical skills (financial accounting, audit and assurance, integrative thinking, analytical skills and bookkeeping) in terms of importance and whether they should be developed in university accounting programs for both employers and graduates. The skill with the greatest distance from the epicenter in the map in this area was financial accounting. And the nontechnical skill with the greatest distance from the epicenter in the map in this area was oral communication.

While there was less correspondence from employers for the nontechnical skills (and specifically the EI skills) there was still correspondence for almost 38% and 32% of the nontechnical and emotional intelligence skills respectively. Again employers and graduates shared similar attitudes with respect to written communication, oral communication and the EI skills of adaptability, achievement and building bonds. As previously noted the findings for written and oral communication are consistent with the many studies in the field. In addition to adaptability and achievement, employers also believe that the EI skills of initiative, transparency, teamwork and collaboration and building bonds are important and should be developed in university accounting programs. As previously discussed, these findings are consistent with the many calls for inclusion of EI skill development in university accounting programs (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al.*, 2010; Wells *et. al.*, 2009).

In evaluating hypothesis three for graduates the extent of correspondence is: 19% for nontechnical skills and 11% for emotional intelligence skills which are much lower than the 50% correspondence for technical skills. Overall, the study's results do show support for the neo-correspondence theory. The correspondence is stronger for employers and in particular for technical skill development.

Skills: below average importance, below average expected development in university

Area 3 in Table 5 below, displays the skills that have below average importance and below average expected development in university. This area is of significance because it contains skills that employers and graduates don't view as important in the workplace and they don't expect them to be developed in university.

Again there was consistency between employer and graduate rankings. While there were few technical skills in this area, both employers and graduates did rate strategy and governance and independently taxation and information technology. The skill with the greatest distance from the epicenter in the map in this area was strategy and governance. The nontechnical skill with the greatest distance from the epicenter in the map in this area was influence for graduates and change catalyst for employers.

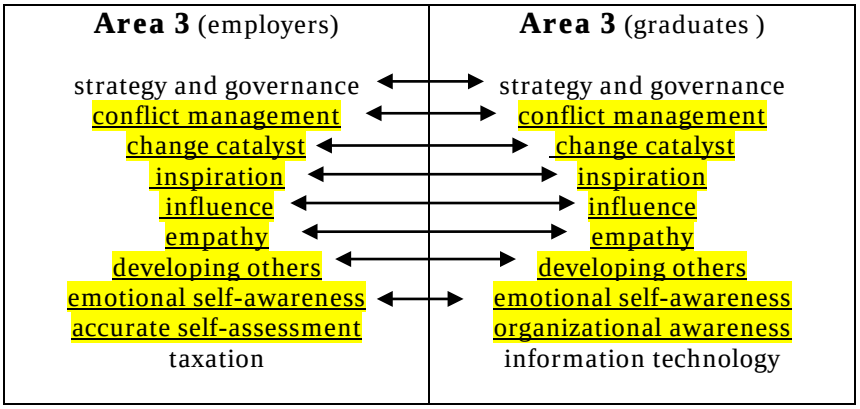

Table 5: Below average importance, below average expected development in university (Area 3)

The nontechnical skills in Area 3 were all EI skills with seven of the eight skills being identical for employers and graduates. Again this raises the question of whether it is reasonable to expect that all EI skills are suitable for development in university. It can be argued that there are some EI skills that may not appropriate for development in university and relatively suited for development later in one's career. The findings show that only some of the 19 EI skills are desirable for accounting graduates at entry level in the workplace. Thus, there might be some EI skills that universities do not need to worry about as they might be more appropriate for development in the workplace.

What the results of Area 3 also reveal is that neo-correspondence theory can also be viewed in the reverse - from the perspective that skills that are not seen as important in the workplace do not have to be developed in university. This represents an extended application of neo-correspondence theory that has not been seen in the published literature to date. The degree of correspondence for the EI skills in this category was almost 37%.

Skills: below average importance, above average expected development in university

Finally, Area 4 in Table 6 below shows skills which have below average importance and above average expected development in university. This area clearly raises questions of relevance in university accounting programs given the skills are not seen as important as others but there is a higher expectation for development.

Area 4 (employers)	**Area 4** (graduates)
management accounting ⟷	management accounting
finance ⟷	finance
information technology	taxation

Table 6: Below average importance, above average development in university (Area 4)

There were no nontechnical skills in this area but the technical skills of finance, management accounting and information technology were rated as having below average importance in the workplace but above average expected development in university. The skill with the greatest distance from the epicenter in the map in this area was finance.

The findings suggest that both employers and graduates view some technical skills, particularly management accounting and finance, as not as important as others but they still expect that they be developed in university. These findings would appear to contradict the neo-correspondence theory. One explanation is that these topics are fairly standard in a university business education, particularly in accounting and it would be unrealistic to suggest that courses like finance and management accounting not be offered. However, given their rating by both employers and graduates it does raise questions as to whether the material covered in these courses is relevant to the workplace for entry level accountants.

These concerns about the relevance of the required courses in university accounting programs have been raised before (Richardson, 2005; Siegel and Sorensen, 1994). More recently Siegel *et al.* (2010) identified a "synchronization gap" as their study revealed that the required courses found in most undergraduate accounting courses have remained unchanged for almost 25 years. These researchers urged universities to synchronize accounting curricula with market demands.

Summary

Overall, the views of employers and graduates were similar with respect to the importance of a skill area and the extent to which it should be developed in university accounting programs. Both groups did not identify any technical skills that were important and should not developed in university. Also, employers and graduates acknowledge the importance of certain emotional intelligence skills but do not have expectations that they be developed in university accounting programs. There is a small gap between employers and graduate attitudes about the expected correspondence between the importance of technical skills and their development in university accounting programs. Like employers, graduates view nontechnical skill development in university accounting programs as being slightly less important than technical skills development. Graduates also expect less correspondence than employers with respect to nontechnical and more specifically emotional intelligence skills development in university accounting programs.

In summary, the study did find some support for neo-correspondence theory. There are skills (e.g. financial accounting, audit and assurance, analytical skills, integrative thinking, bookkeeping, written communication, oral communication, achievement, building bonds and adaptability) that employers and graduates believe are important and should be developed in university accounting programs. As well, there are other skills (e.g. strategy and governance, conflict management change catalyst, inspiration, influence, empathy, developing others and emotional self-awareness) that don't hold the same importance in the workplace and thus are not expected to be developed in university. The degree of correspondence was found to be stronger for technical skills.

A summary of the key findings in this area are included below.

#10 *- Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important (not important) in the accounting workplace and those developed (not developed) in university accounting programs.*

#11 - *The study did show support for neo-correspondence theory. The correspondence is stronger for employers and in particular for technical skill development.*

Importance of skill vs. development of skills in graduates

While there was no hypothesis that examined the relationship between the importance of a skill vs. the extent of development of that skill in graduates, these attributes were also plotted in a series of strategic maps in DBA Paper 4. While the strategic maps are not re-presented here, the skill areas are extracted and comparisons are made (employers vs. graduates) for discussion purposes. An example of this type of strategic map is represented below in Figure 2.

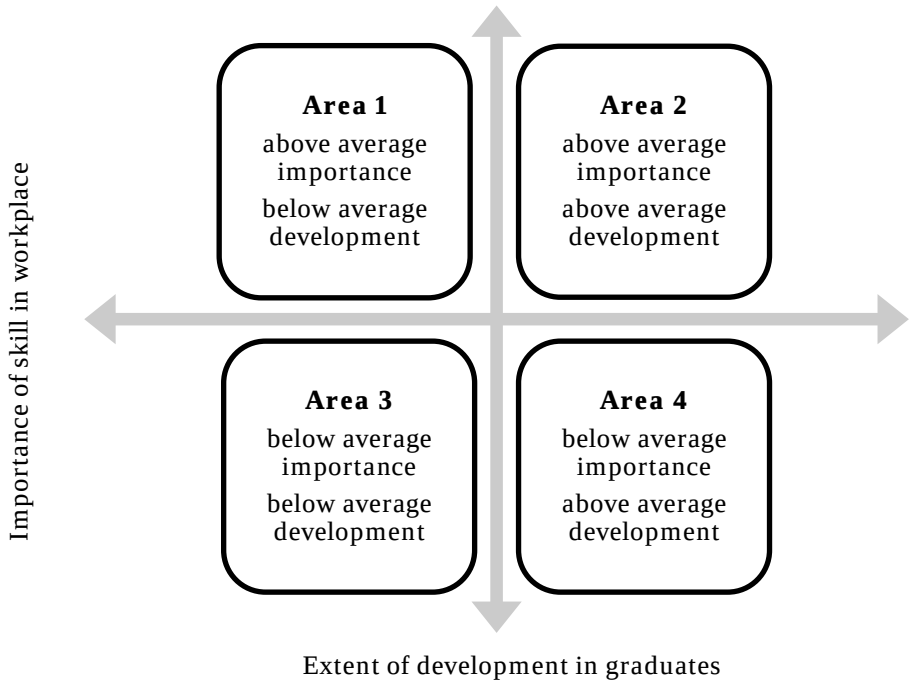

Figure 2: Strategic map interpretive guide for importance vs. extent of development in graduates

The results of the strategic maps for employers and graduates for importance of skills vs. development in graduates will be discussed in this sub-section by area. The results of the strategic maps for employers and graduates are summarized below in Tables 7-10. It is noted that the skills in each area are not presented in an order representing ranking. Skills that have similar results for employers and graduates are presented first and these are denoted with arrows. When commentary regarding the most or least ranked skill is made in an area, it is based on the distance of that skill from the epicenter in the map. Finally, discussions about skills are all relative to the average mean score and the conclusions reached about skill emphasis is made comparatively.

Skills: above average importance, below average extent of development in graduates

In Table 7 below the results for Area 1 are displayed. These are the skills that were rated with above average importance in the workplace and below average development in graduates. This area should be of concern for university accounting educators.

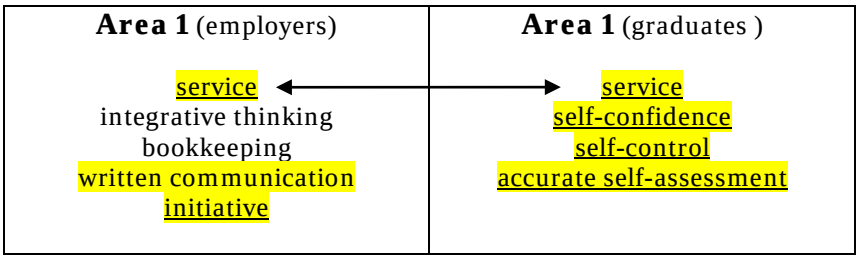

Table 7: Above average importance, below average extent of development in graduates (Area 1)

Employers found that written communication, service and initiative have above average importance in the workplace but below average development in graduates. Employers also reported the technical skills of integrative thinking and bookkeeping in this category with integrative thinking receiving a slightly higher ranking. While bookkeeping skills in graduates has not been studied extensively to date, one study, examined as part of the literature review, reported that accounting graduates were perceived to be particularly weak in bookkeeping expertise (Bui and Porter 2010).

Graduates reported no technical skills as being of high importance in the workplace and low development. Like employers, however, they did rate the EI skill of service in this area. According to Goleman's EI framework service is anticipating, recognizing and meeting client needs (Goleman et *al.*, 2002). The finding for the service skill area in the study was consistent with the results of Kavanagh and Drennan (2008) and Wells *et al.* (2009) who identified the importance of responsiveness to client's needs and requirements as an important skill for accounting graduates. The EI skill of initiative has not been referenced much in the literature but in the study, as noted in Table 7, employers did view it as having above average importance below average development in graduates.

The results in Table 7 have some overlaps with some of results displayed in Table 3. The areas of importance, expected development in university and extent of development in graduates will be integrated later in Section 3 using priority indices.

Skills: above average importance, above average extent of development in graduates

Area 2 in Table 8 contains the skills that are of above average importance and are seen as having above average development in graduates. This area reflects good practice for university accounting programs. There are some similarities in Table 8 to the results reported in Table 4 and these will be explored later in Section 3.

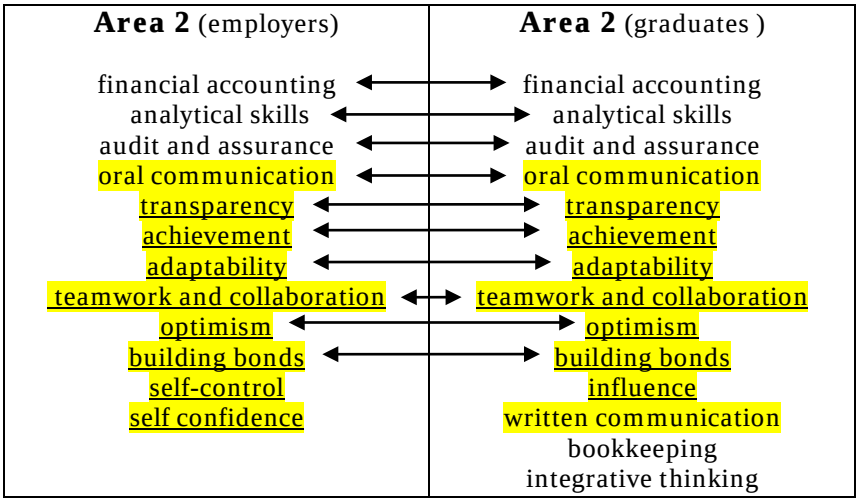

Table 8: Above average importance, above average extent of development in graduates (Area 2)

It is encouraging to see that employers and graduates rated the technical skills of financial accounting, analytical skills and audit and assurance in this category. The skill with the

greatest distance from the epicenter in the map in this area was financial accounting. Graduates reported that the skills of integrative thinking, bookkeeping and written communications had above average development in graduates which is in contrast to employers who noted that these skills had below average development (as noted in Table 7).

Both groups placed oral communication and six EI skills in this area. The results for EI in Area 2 add further evidence to the previous discussion which suggests that some EI skills may be more suited for development in accounting graduates at entry level. In the study both employers and graduates thought that 32% of the 19 EI competences had relatively above average development in graduates. This is not consistent with the findings of other studies which suggest that EI in general is low in accounting graduates (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Kermis and Kermis, 2010). It is acknowledged that in the current study EI was not measured through formal testing and employers and graduate attitudes were used as a proxy for the assessment of EI competence. Also, as previously noted, other studies of EI in accounting education may not have focused on the specific EI skills used in the current study. Thus, notwithstanding the difference in methodology, these factors should be considered in assessing the study's comparability to previously published results.

Skills: below average importance, below average extent of development in graduates

Table 9 contains Area 3 which are the skills that have below average importance and below average development in graduates. This area should be of interest to university accounting programs as it might contain skills included in university accounting programs that are not viewed as important or being successfully developed in accounting students.

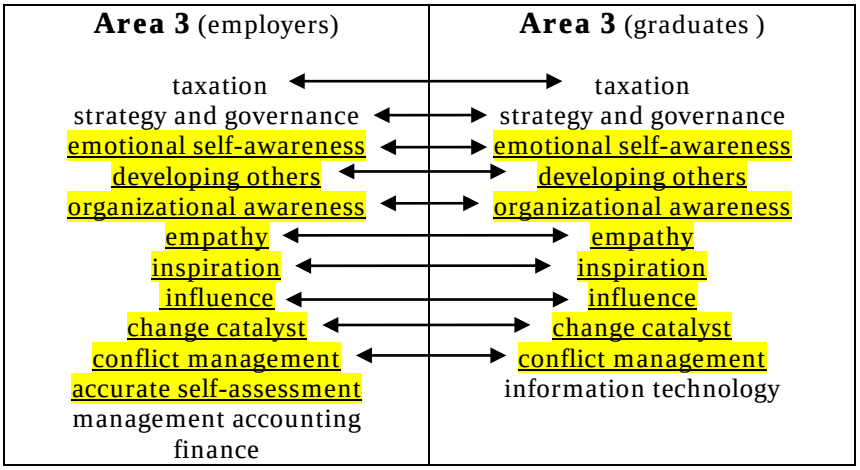

Table 9: Below average importance, below average extent of development in graduates (Area 3)

Both employers and graduates rated taxation and strategy and governance in this area. These results are similar to what was reported in Table 5 where taxation and strategy and governance were also viewed as having below average importance and below average expected development in university. The findings regarding taxation might be reflective of the respondent profile as most participants did work in audit.

Almost 47% of the EI skills were captured in Area 3 and 42% of them were reported by both employers and graduates. This again brings up the issue as to whether some EI skills are less (more) important for entry-level and less (more) appropriate for development in university accounting programs. It can be argued that some EI skills may not be important for accounting graduates upon entry to the profession.

Skills: below average importance, above average development in graduates

Finally, Area 4 below in Table 10 contains the skills that were viewed as having below average importance but above average development in accounting graduates. This area clearly raises questions of focus for university accounting programs given the skills are not seen as important as others but they have above average development in graduates.

Area 4 (employers)	**Area 4** (graduates)
information technology	finance management accounting

Table 10: Below average importance, above average development in graduates

Employers and graduates ranked no nontechnical skills in Area 4. However, the technical skills of information technology, finance and management accounting were noted as being of below average importance in the workplace but having above average development in gradates. This is consistent with the results of Area 4 in Table 6 where those three technical skills were reported as having below average importance in the workplace and above average development in university. A question of focus and relevance for university accounting programs might be raised in this area. Are university accounting programs spending time developing skills in accounting students that are not viewed as important in the workplace? Also, there are no skills in this area that were viewed similarly by employers and graduates.

Summary

Overall the results for EI skills were interesting and similar between employers and graduates. Employers and graduates rated 47% of the EI skills as having below average importance and below average development in graduates. However, a number (42%) of EI skills were seen as having above average importance and above average development in graduates. Thus, the study's results for EI development in accounting graduates is more progressed than some of the studies have suggested. While there is room for improvement almost half of the EI skills are seen as important and well developed. These ideas will be explored later in the section.

What was unexpected, however, is that employers identified some technical skills (e.g. integrative thinking and bookkeeping) as being of above average importance in the workplace but below average development in graduates. Likewise it was surprising that employers found the information technology skill area as being of below average importance and having above average development in graduates.

A summary of the key findings in this area are included below.

#12 *- Employers and graduates consider some EI skills to be relatively important but not well developed in accounting graduates. Other EI skills are seen as important and well developed in accounting graduates. (Note findings #21 and #23 will list the specific EI skills in each of these categories).*

#13 *- Employers identified some technical skills (e.g. integrated thinking and bookkeeping) as being of above average importance in the workplace but having below average development in graduates.*

Integration of skills analyses

The feedback from DBA Paper 4 indicated that a fully integrated analysis of the three variables (importance of the skill, development of the skill in graduates and expected development of the skill in universities) in the study could offer meaningful insights. This analysis was undertaken by combining the analytical tools used by Hassall *et al.* (2005) and Montano *et al.* (2001).

Priority indices were calculated in order to identify the skills that require major development. These indices relate the individual skill mean score to the overall average mean skill score and then weighting this by the individual skill importance mean score. This calculation has previously been applied to accounting skill level adequacy (Hassall *et al*., 2005). In this study it was utilized to expected skill development in university (Where Index) and the extent of skill development in graduates (Extent Index)

Where Index

Priority indices were calculated for each skill for both graduates and employers in terms of importance and expected development in university. This index is referred to as the "Where Index". The Where Index indicates, by a higher score, those skills that are **most expected to be developed** given their level of importance. The mathematical formula for this index is:

$$Where\ Index_i = I_i \times \frac{W_i}{\bar{W}}$$

Where $Index_i$ = the 'where index' of priority for skill i

I_i = mean importance score for skill i
W_i = mean expected development score for skill i
$\bar{W}$ = average of the mean expected development score for all skills
i = skill, from 1 to 31

An example of how the Where Indices were calculated are included below.

Financial Accounting 5.49 = 4.76[1] X $\frac{4.20[2]}{3.64[3]}$
(Employers)

Table 11 below shows the Where Index by skill area for employers and graduates and the comparative rankings of the indices.

The technical skill of financial accounting received the highest ranking from both employers and graduates. This means that financial accounting was considered the most important skill for development in university accounting programs. Other skills in the top rankings for the Where Index for both groups include oral communication, written communication, integrative thinking and analytical skills. Interestedly both employers and graduates ranked the same two EI skills (change catalyst and influence) as having the lowest Where Indices.

It is worth noting from Table 10 that 60% of the technical skills appear in top half of the rankings while only 37% of the EI skills are in this top portion. Thus, this adds further support to the earlier finding of the importance of technical skill development in university.

[1] from Table 8 in DBA Paper 4

[2] from Table 14 in DBA Paper 4

[3] from Table 14 in DBA Paper 4

Table 11: Where index scores and rankings

Skill Area	Employer Index	Graduate Index	Employer Rank	Graduate Rank
1.Financial Accounting	5.50	5.42	1	1
2.Oral Communication	5.46	5.05	2	5
3.Analytical Skills	5.45	5.12	3	4
4.Integrative Thinking	3.36	5.15	4	3
5. Written Communication	5.23	4.89	5	6
6.Teamwork and Collaboration	5.04	4.84	6	7
7.Transparency	4.81	4.47	7	9
8. Audit and Assurance	4.77	5.23	8	2
9.Bookkeeping	4.76	4.61	9	8
10.Achievement	4.68	4.41	10	12
11.Adaptability	4.60	4.47	11	10
12.Service	4.36	4.27	12	14
13.Initiative	4.31	4.19	13	15
14.Building Bonds	4.30	4.28	14	13
15.Finance	4.16	3.98	15	20
16.Information Technology	4.04	3.83	16	23
17.Optimism	4.00	4.02	17	19
18.Self-Control	3.97	4.06	18	16
19.Taxation	3.92	4.44	19	11
20.Management Accounting	3.91	4.05	20	18
21.Developing Others	3.85	3.70	21	24
22.Self-Confidence	3.80	4.06	22	17
23.Accurate Self-Assessment	3.78	3.87	23	22
24.Organizational Awareness	3.65	3.69	24	25
25.Conflict Management	3.62	3.94	25	21
26.Emotional Self-Awareness	3.56	3.61	26	27
27.Empathy	3.37	3.56	27	28
28.Strategy and Governance	3.36	3.63	28	26
29.Inspiration	3.34	3.51	29	29
30.Influence	3.33	3.29	30	31
31.Change Catalyst	3.21	3.50	31	30

Extent Index

Priority indices were also calculated for each skill for both graduates and employers in terms of importance and extent developed in graduates. This index is referred to as the "Extent Index". The Extent Index indicates, by a higher score, those skills that are **least developed** given their level of importance. The formula is slightly different (i.e. the overall mean and individual mean scores for development are reversed from the Where indices calculation) for the Extent indices to highlight below average expected development. The mathematical formula for this index is:

$$Extent\ Index_i = I_i \times \frac{\bar{E}}{E_i}$$

Extent $Index_i$ = the 'extent index' of priority for skill i

I_i = mean importance score for skill i
E_i = mean extent developed score for skill i
$\bar{E}$ = average of the mean extent developed score for all skills
i = skill, from 1 to 31

An example of how the Extent Indices were calculated is included below.

Financial Accounting (Employers) 3.96 = 4.76[4] X $\frac{2.78}{3.34}$[5][6]

Table 12 below shows the Extent Index by skill area for employers and graduates and the comparative rankings of the indices.

The emotional intelligence skill of service was the highest ranked according to both employers and graduates. This means that the service skill needs the most development in accounting graduates given its importance in the workplace. The highest ranking technical skill for employers was bookkeeping. As noted earlier this skill has emerged unexpectedly from the study as employers believe it is important in the workplace, poorly developed in accounting graduates and requiring attention in university accounting programs.

The technical skills of financial accounting and management accounting have low Extent Index scores from the perspectives of both employers and graduates. Likewise, both employers and graduates had a low Extent Index for the EI skills of teamwork and collaboration and building bonds suggesting that they need the least development in graduates given how well developed they are perceived to be.

[4] from Table 8 in DBA Paper 4

[5] from Table 11 in DBA Paper 4

[6] from Table 11 in DBA Paper 4

Table 12: Extent index scores and rankings

Skill Area	Employer Index	Graduate Index	Employer Rank	Graduate Rank
1.Service	5.03	5.31	1	1
2.Accurate Self-Assessment	4.83	4.71	2	5
3.Bookkeeping	4.81	4.01	3	23
4.Organizational Awareness	4.77	4.31	4	15
5.Integrative Thinking	4.75	4.38	5	12
6. Written Communication	4.65	3.84	6	26
7.Taxation	4.51	4.49	7	10
8.Conflict Management	4.49	4.24	8	18
9.Strategy and Governance	4.46	4.03	9	22
10.Change Catalyst	4.43	4.49	10	11
11.Influence	4.43	4.32	11	14
12.Analytical Skills	4.43	4.38	12	13
13.Initiative	4.40	4.18	13	19
14.Developing Others	4.36	4.67	14	6
15.Oral Communication	4.29	4.00	15	24
16.Empathy	4.27	4.87	16	3
17.Self-Control	4.25	4.76	17	4
18.Finance	4.25	3.61	18	28
19.Emotional Self-Awareness	4.20	4.98	19	2
20. Audit and Assurance	4.17	4.66	20	7
21.Inspiration	4.11	4.09	21	21
22.Adaptability	4.01	4.14	22	20
23.Transparency	4.00	4.31	23	16
24.Financial Accounting	3.96	3.58	24	30
25.Self-Confidence	3.90	4.60	25	9
26.Management Accounting	3.85	3.24	26	31
27.Optimism	3.79	4.28	27	17
28.Achievement	3.73	3.87	28	25
29.Building Bonds	3.67	3.63	29	27
30.Information Technology	3.66	4.64	30	8
31.Teamwork and Collaboration	3.44	3.59	31	29

The strategic maps discussed earlier, and utilized in DBA Paper 4 to present the study's results, were used to bring together the Where and Extent Indices for employers and graduates. The Where Index indicates what are the relatively most appropriate skills to be developed in university given their importance while the Extent Index indicates which skills are relatively least developed in graduates given their importance. By bringing both indices together in a map a picture of those skills that are both appropriate to be developed in universities and are the least developed in graduates may be highlighted.

An example of this type of strategic map is represented below in Figure 2.

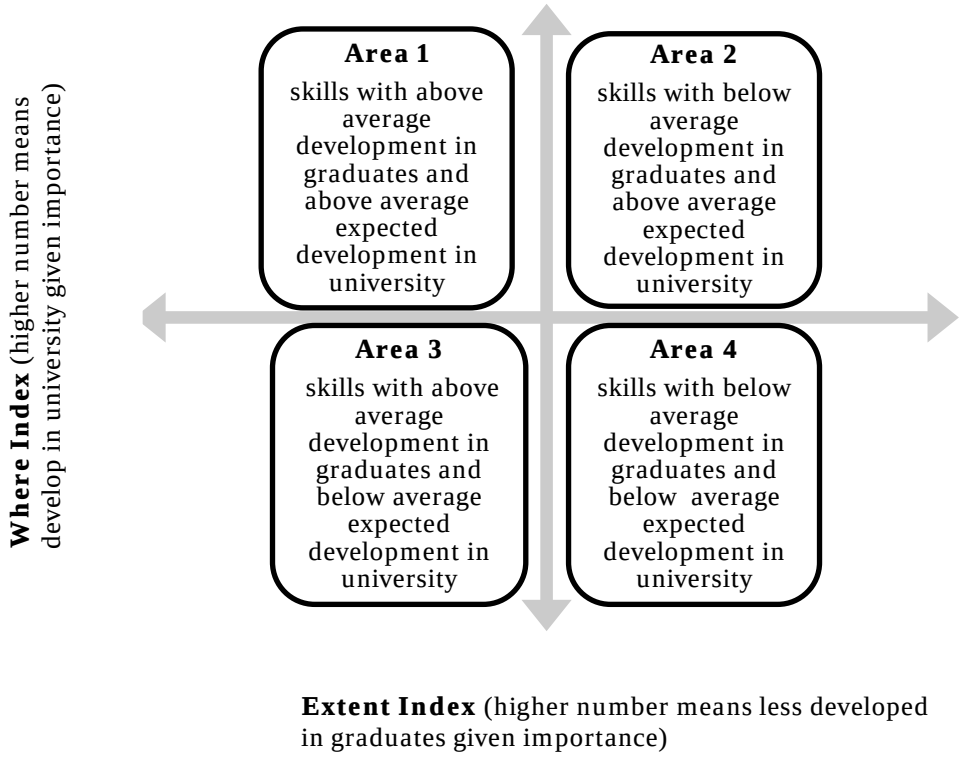

Figure 3: Strategic map interpretive guide for where and extent indices

Figure 4 below displays the strategic map for the Where and Extent Indices for all skill areas for employers.

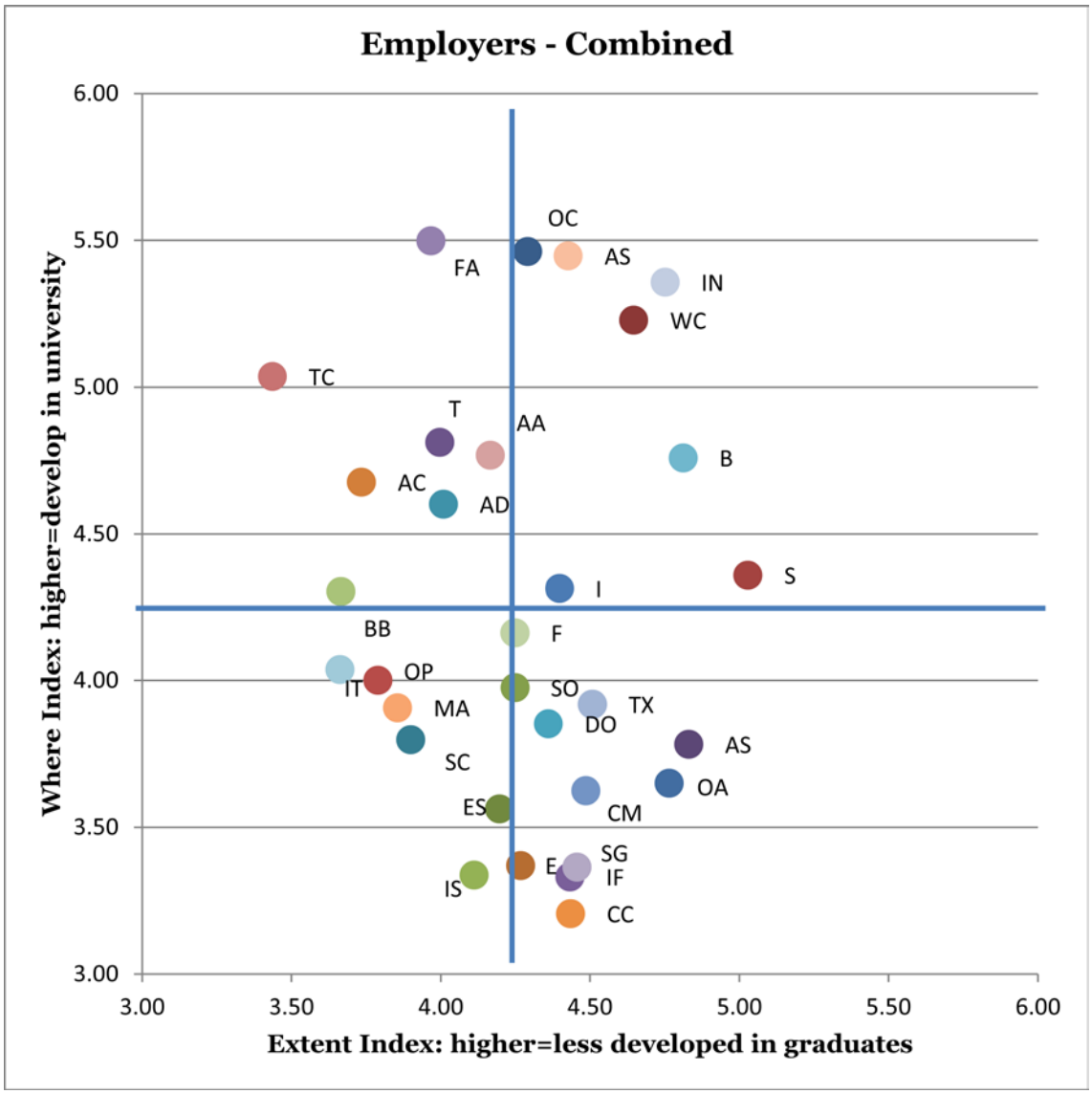

Figure 4: Technical * and nontechnical skills, employers**

***** Technical skills: Audit and Assurance (AA), Analytical Skills (AS), Bookkeeping (B), Finance (F), Financial Accounting (FA), Information Technology (IT), Integrative Thinking (IN), Management Accounting (MA), Strategy and Governance (SG), Taxation (TX).

****** Accurate Self-Assessment (AS), Achievement (AC), Adaptability (AD), Building Bonds (BB), Change Catalyst (CC), Conflict Management (CM), Developing Others (DO), Emotional Self-Awareness (ES), Empathy (E), Influence (IF), Initiative (I), Inspiration (IS), Optimism (OP), Organizational Awareness (OA), Oral Communication (OC), Self-Confidence (SC), Self-Control (SO), Service (S), Teamwork and Collaboration (TC), Transparency (T), Written Communication (WC).

Figure 5 below displays the strategic map for the Where and Extent Indices for all skill areas for graduates.

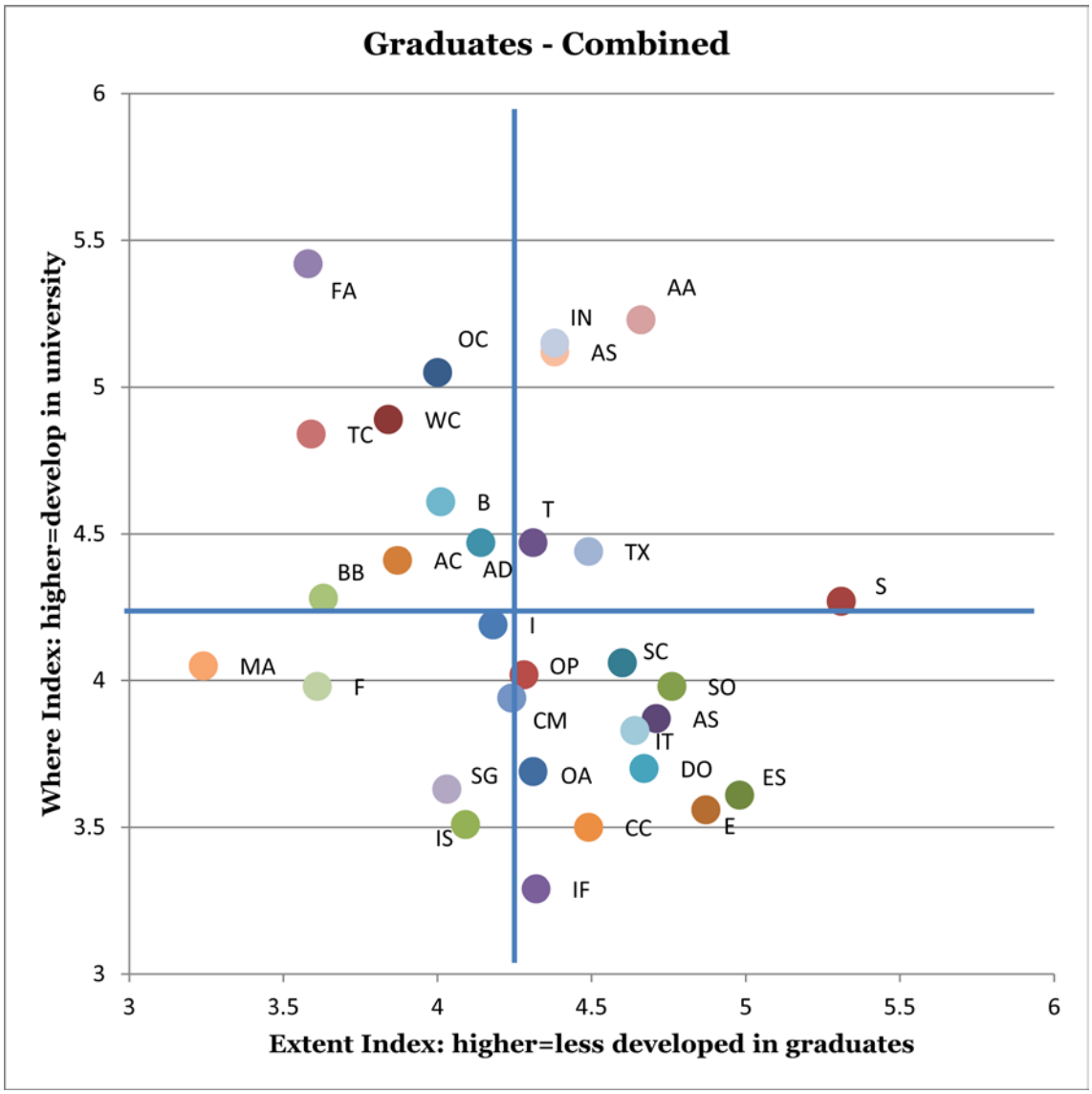

Figure 5: Technical* and nontechnical skills, graduates**

***** Technical skills: Audit and Assurance (AA), Analytical Skills (AS), Bookkeeping (B), Finance (F), Financial Accounting (FA), Information Technology (IT), Integrative Thinking (IN), Management Accounting (MA), Strategy and Governance (SG), Taxation (TX).

****** Accurate Self-Assessment (AS), Achievement (AC), Adaptability (AD), Building Bonds (BB), Change Catalyst (CC), Conflict Management (CM), Developing Others (DO), Emotional Self-Awareness (ES), Empathy (E), Influence (IF), Initiative (I), Inspiration (IS), Optimism (OP), Organizational Awareness (OA), Oral Communication (OC), Self-Confidence (SC), Self-Control (SO), Service (S), Teamwork and Collaboration (TC), Transparency (T), Written Communication (WC).

The results of the strategic maps for employers and graduates are compared and summarized below by area in Tables 13-16. It is noted that the skills in each area are not presented in an order representing ranking. Skills that have similar results for employers and graduates are presented first and these are denoted with arrows. Commentary regarding the most or least ranked skill in an area is based on the distance from the epicenter in the map.

Skills that universities are developing well in graduates

In Area 1 in Table 13 are skills with above average development in graduates and above average expected development in university. This can be viewed as an area of good practice for

universities. Area 1 includes core technical skills like financial accounting and audit and assurance. These two technical skills are viewed as the core services provided by professional accountants and thus it was not unexpected to find that they be viewed as important and well developed. These results lend support to the claim of Wells *et al.* (2009) who noted that university provides a very sound foundation of technical skills in accounting students.

Both employers and graduates believe that four EI skills (teamwork and collaboration, building bonds, achievement and adaptability) are being developed well in university. For one of these skills, teamwork and collaboration, this finding does not reflect the results of Wells *et al.* (2009) and Bui and Porter (2010) who concluded that work still needs to be done in the area of developing teamwork in university accounting programs.

Overall the two skills with the greatest distance from the epicenter in the map in this area were financial accounting first by importance, followed by teamwork and collaboration.

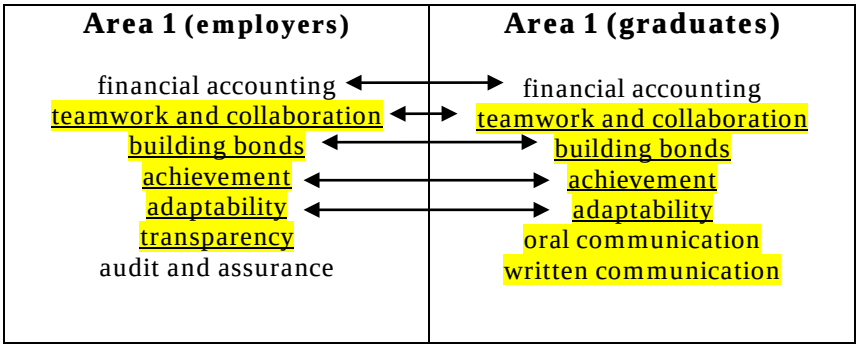

Table 13: Skills that universities are developing well in graduates (Area 1)

Skills needing attention by university educators

Table 14 summarizes Area 2 where skills with below average development in graduates and above average expected development in university are found. This may be viewed as areas of improvement for university accounting programs as these are skills seen as needing development because of their importance.

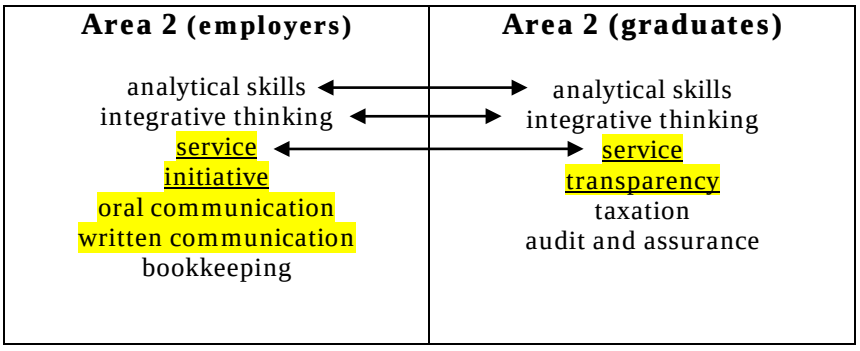

Table 14: Skills needing attention by university educators (Area 2)

Employers and graduates felt that the technical skills of integrative thinking and analytical skills were in this category. These results are consistent with the findings of other studies in the field that noted the value of analytical and integrative problem solving skills (Hassall *et al.*, 2005; Kavanagh and Drennan, 2008). Employers also believe that bookkeeping, oral communication and written communication need attention in university accounting programs, as previously reported. It is interesting to note that in the current study graduates view oral communication and written communication (as noted in Table 12) as being well developed in graduates which is contrary to employer attitudes about these skills.

The one EI skill that was common between employers and graduates in this area was service. As noted earlier, the study has found that the service skill is a competency seen as important for the accounting workplace that should be developed in accounting graduates during their university accounting programs.

It is also worth noting from Table 13 (in the previous sub-section) that employers viewed the EI skill of transparency as being well developed in graduates. However, as indicated in Table 14, graduates view this as a skill that needs development. This is an encouraging result given previous findings which suggested that accounting students see the value of emphasis on ethical reasoning in the curriculum as being less important relative to other skills (Eynon and Stevens, 1996; Jackling and Delange, 2009).

Skills that are developed and universities may not have to emphasize

Table 15 below contains Area 3 which represents skills with above average development in graduates but below expected average development in university. These are skills that are viewed as being developed in graduates so universities can devote less time to. Thus, there are questions of relevance and emphasis.

Area 3 (employers)	Area 3 (graduates)
management accounting	management accounting
inspiration	inspiration
emotional self-awareness	conflict management
optimism	initiative
self-confidence	finance
information technology	strategy and governance

Table 15: Skills that are developed and universities may not have emphasize (Area 3)

Both employers and graduates placed management accounting in this area. This finding is not that unexpected given the research in the field about the relevance of management accounting in today's accounting curriculum (Novin *et al.*, 1990; Richardson, 2005; Siegel and Sorensen, 1994; Siegel *et al.*, 2010; Tatikonda, 2010). Specifically, Montano *et al.* (2001) concluded that the learning objectives of management accounting in university should allow for a broader set of skills and topics. Hence, the question for university accounting educators is whether the management accounting curriculum is relevant for the accounting workplace. If such development is in the context of preparation for other professional accounting designations, such as the Certified Management Accountant (CMA) program, it may have some justification, but for these students on the CA program and for their employers, the management accounting skill area is not meeting average expectations

It is also notable that employers considered the technical skill of information technology to be developed and not requiring university attention. This result is consistent with findings of Hassall *et al*. (2005) where it was found that information technology had the least perceived need for immediate development in accounting graduates entering the workforce. The researchers went on to question whether the large amounts of university funding directed towards information technology advancement should be redeployed to the development of other skill areas - specifically nontechnical skills. Similarly, Howieson (2003) concluded that, while information technology is important in the accounting workplace, skills in analysis, innovative problem solving, communications and client relations are more important.

Employers and graduates rated six EI skills in Area 3 with one skill (inspiration) being similar between both groups. These results along with the results of Area 1 in Table 13 add further support to the notion that some EI skills are viewed as being developed in accounting graduates and are relatively less of a concern for universities.

Skills that need development but universities may not have to emphasize

Finally, Table 16 below summarizes Area 4. This area is also a question of relevance because it contains skills with below average development in graduates and below average expected development in university. This area contains skills that universities that do not have to focus on and should be developed elsewhere.

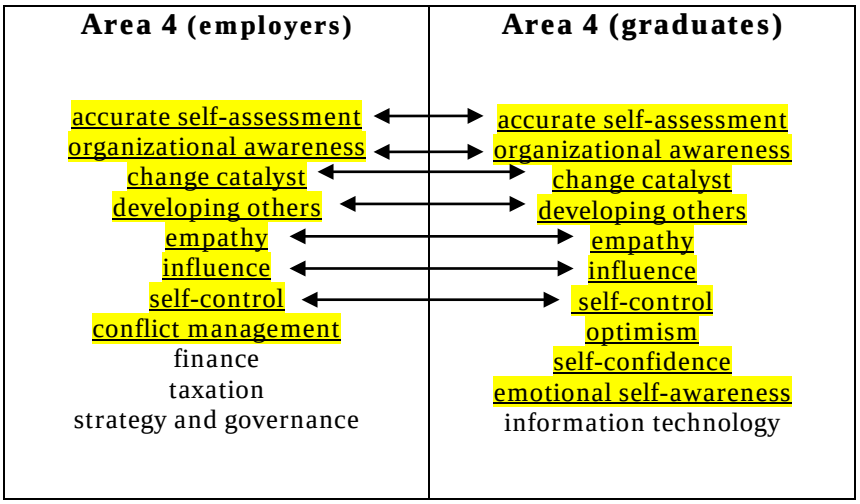

Table 16: Skills that need development but universities may not have to emphasize (Area 4)

Employers rated the technical skills of finance, taxation and strategy and governance in this area while the only technical skill showing for graduates was information technology. This raises the question of whether some technical accounting skills should be developed in the professional accounting program instead of university. The benefits of this approach were espoused by Jackling and DeLange *et al.* (2009) who thought that eliminating some courses in the university accounting program would allow universities to reallocate resources to enhance the development of generic skills in accounting graduates.

The results for the EI skills in this area were interesting. Almost 58% of the EI skills were placed in Area 4 by either employers or graduates and 37% of EI skills were similar between both groups. This issue was raised earlier in other sub-sections. It is clear that one of the key findings from the study is that some EI skills may not be relevant or appropriate for development in university accounting programs relative to other skills.

Few studies have examined a comprehensive skill set requirement for entry level accountants that uses Goleman's EI framework as well as the technical skill components. However, the research of Wells *et al.* (2009) does offer insights on some specific skills. These researchers found that skills that were similar to developing others and organizational awareness skills (as defined by Goleman's EI framework) were not suitable for university development. Also, Wells *et al.* (2009) note that the development of realistic learning and assessment strategies in an area like conflict management might not be appropriate for university and better developed in the workplace. Or perhaps graduates are too inexperienced to believe that they can bring about change in the workplace. Similarly, Whitefield (2007) noted that some skills like empathy and conflict resolution are not amenable to developing in a university curriculum. This has led to the contention that university courses are intended to develop a platform of skills that will be further developed in the workplace (Wells *et al.*, 2009). This study builds on these findings and provides a more detailed analysis of which EI skills in particular are relatively more or less appropriate for development in universality.

A summary of the key findings in this area are included below.

***#14**- Employers and graduates consider the technical skills of integrative thinking and analytical skills to be important but not well developed in accounting graduates through their university accounting programs.*

***#15**- Employers consider the technical skill of bookkeeping to be important but not well developed in accounting graduates through their university accounting programs.*

***#16**- Employers and graduates consider the emotional intelligence skill of service to be important but not well developed in accounting graduates through their university accounting programs.*

***#17**-Employers consider the nontechnical skills of oral communication and written communication to be important but not well developed in accounting graduates through their university accounting programs.*

***#18-** Employers and graduates consider the technical skill of management accounting to be well developed in accounting graduates and requiring less development through their university accounting programs.*

***#19-** Employers consider the technical skill of information technology to be well developed in accounting graduates and requiring less development through their university accounting programs.*

***#20-** Employers consider the technical skills of finance, taxation and strategy and governance to be underdeveloped in accounting graduates but there are no expectations that these skills should be developed in university accounting program*

***#21-** Employers and graduates consider the EI skills of accurate self-assessment, organizational awareness, change catalyst, developing others, empathy, influence and self-control to be underdeveloped in accounting graduates but there are no expectations that these skills should be developed in university accounting programs.*

***#22** - Employers consider the technical skills of financial accounting and audit and assurance to be important and well developed in accounting graduates through their university accounting programs.*

***#23**- Employers and graduates consider the emotional intelligence skills of teamwork and collaboration, building bonds, achievement and adaptability to be important and well developed in accounting graduates through their university accounting programs.*

***#24**- Employers consider the EI skill of transparency as being well developed in graduates and developed in universities. Graduates, however, view this as an area needing attention in university accounting programs.*

***#25-** The study showed support for neo-correspondence theory which emphasizes the connection between higher education and the business community.*

In summary, the integrated skills analyses using strategically mapped priority indices confirmed some of the findings that had been described earlier in this section. These tools also refined the placement of the 31 technical and nontechnical skills in various categories of emphasis for universities. The next sub-section will discuss the findings relating to employer and graduate attributes.

Analysis of employer and graduate attributes

It was anticipated that the responses about the various skills in the survey areas might vary according to the various attributes of the respondents. In particular, given the literature in the area, it was anticipated that the graduate responses might show differences depending on whether the accounting graduates had work experience. Cook *et al.* (2011) found that the EI results of accounting graduates were higher for those that had work experience. Albrecht and Sack (2000) recommended that work experience be included as part of the degree for an accounting student. The year of university graduation and years in the ASCA program were collected as part of the graduate survey with a view to controlling for the post-graduation experience of graduates. However, these were not significant attributes across the responses within the sample. Carr *et al.* (2006) also found no significant differences in responses based on work experiences in their survey of accounting alumni. An explanation might be that graduates in the study had some professional development skills incorporated in their university accounting program. Or that the graduates' more recent and immediate experience of working in the accounting workplace might have a much stronger influence than previous

work experiences. In addition there is a possibility that workplace learning or training by employers may have influenced the responses to the survey.

Another area where it was anticipated that there might be some significant differences was for employer responses according to office size. Bui and Porter (2010) found the employer responses about the skills required of accounting graduates varied significantly according to office size (e.g. small and medium firms vs. large firms). The study did find a few statistically significant differences to responses in the questionnaires based on office size. There were only three skills (management accounting, building bonds and influence) that had significant differences in importance means scores by office type. The scores for respondents from national offices were higher than the scores of respondents from local offices for each of these three skills. The skill areas identified by Bui and Porter (2010) as having significant differences were bookkeeping and time management skills. This study adds to the existing studies in noting differences in attitudes about skills by size of employer office but given the inconclusive findings this area requires further research.

The most statistically significant differences in the employer and graduate results by attribute in the study were found for graduate responses by gender. The responses to the question about the importance of skills were significantly different between male and female graduates for 12 (includes six EI skills) of the 31 skill areas. In all of the 12 skills the female graduate respondents had higher mean scores than the male graduate respondents as to how important the skill area was in the workplace. In the responses to the question about the extent graduates believe each skill area should have been developed as part of their university accounting programs, significant differences were found for half of the technical skills. In all cases the mean score for female respondents were higher than the mean score for male respondents.

The existing studies on skills for accountants are mixed with respect to differences in perspective by gender. Jacking and De Lange (2009) did not find significant differences by gender on each of the skill areas in their study. Pan and Perera (2012) did not report gender differences either. Stivers and Onifade (2011), however, found that female accounting majors rated the nontechnical skills of communication, creativity and leadership significantly higher than the males. This study adds to the existing studies in highlighting gender differences in attitudes about skills but acknowledges these differences will require further research.

A summary of the key findings in this area are included below.

> ***#26*** *- The study did find some significant differences in responses about skills among graduates based on gender.*

Summary

The study has created a lot of information about the skill set requirements for professional accountants at entry-level and whether university accounting programs develop these skills and in particular emotional intelligence. The recommendations for university accounting programs, particularly for the development of those skills prioritized by the strategic mapping, will be discussed in the next section. This Recommendations section will also summarize the key findings from the study.

Recommendations

This section will summarize the key findings from the study and provide recommendations for university accounting programs. The implications for accounting practice will also be discussed.

Findings

In summary, the key findings for the study were:

#1 *- Employers and graduates had very similar attitudes about what technical and nontechnical skills are important in the accounting workplace*

#2 *- Employers and graduates rated 24 of the 31 skill areas as being important or very important in the workplace.*

#3 *- Employers rank technical skills higher than nontechnical (including EI) for importance in the workplace.*

#4 *- There is an insignificant gap between the attitudes of accounting employers and graduates about the importance of the professional skill set, including EI skills, required in the accounting workplace.*

#5 - *Employers and graduates rated 22 of the 31 skills to have fair to good development in graduates.*

#6 *- There is an insignificant gap between the attitudes of accounting employers and graduates about the extent of development of the emotional intelligence skills of accounting graduates.*

#7 *- There is a significant gap between the attitudes of accounting employers and graduates about the extent of development of the technical skills of accounting graduates.*

#8 *- Employers and graduates rated technical skills higher than nontechnical (and specifically emotional intelligence skills) for development in university accounting programs.*

#9 *- Graduates had higher expectations than employers that technical skill areas be developed in university programs.*

#10 *- Accounting employers and graduates expect correspondence between the emotional intelligence skills seen as important (not important) in the accounting workplace and those developed (not developed) in university accounting programs.*

#11 - *The study did show support for neo-correspondence theory. The correspondence is stronger for employers and in particular for technical skill development.*

#12 *- Employers and graduates consider some EI skills to be relatively important but not well developed in accounting graduates. Other EI skills are seen as important and well developed in accounting graduates. (Note findings #19 and #21 will list the specific EI skills in each of these categories).*

#13 *- Employers identified some technical skills (e.g. integrated thinking and bookkeeping) as being of above average importance in the workplace but having below average development in graduates.*

#14*- Employers and graduates consider the technical skills of integrative thinking and analytical skills to be important but not well developed in accounting graduates through their university accounting programs.*

#15*- Employers consider the technical skill of bookkeeping to be important but not well developed in accounting graduates through their university accounting programs.*

#16*- Employers and graduates consider the emotional intelligence skill of service to be important but not well developed in accounting graduates through their university accounting programs.*

#17*-Employers consider the nontechnical skills of oral communication and written communication to be important but not well developed in accounting graduates through their university accounting programs.*

#18- *Employers and graduates consider the technical skill of management accounting to be well developed in accounting graduates and requiring less development through their university accounting programs.*

#19- *Employers consider the technical skill of information technology to be well developed in accounting graduates and requiring less development through their university accounting programs.*

#20- *Employers consider the technical skills of finance, taxation and strategy and governance to be underdeveloped in accounting graduates but there are no expectations that these skills should be developed in university accounting program*

#21- *Employers and graduates consider the EI skills of accurate self-assessment, organizational awareness, change catalyst, developing others, empathy, influence and self-control to be underdeveloped in accounting graduates but there are no expectations that these skills should be developed in university accounting programs.*

#22 *- Employers consider the technical skills of financial accounting and audit and assurance to be important and well developed in accounting graduates through their university accounting programs.*

#23*- Employers and graduates consider the emotional intelligence skills of teamwork and collaboration, building bonds, achievement and adaptability to be important and well developed in accounting graduates through their university accounting programs.*

#24*- Employers consider the EI skill of transparency as being well developed in graduates and developed in universities. Graduates, however, view this as an area needing attention in university accounting programs.*

#25- *The study showed support for neo-correspondence theory which emphasizes the connection between higher education and the business community.*

#26 - *The study did find some significant differences in responses about skills among graduates based on gender.*

Recommendations

The following recommendations for university accounting programs have emerged from the study:

Recommendation 1- Technical skills requiring an increase in emphasis

This recommendation addresses findings #13, #14 and #15.

The current curriculum of university accounting programs should be reviewed to identify opportunities to develop integrative thinking and analytical skills further. For example the use of the case studies or simulations might be a way to enhance integrative thinking and analytical skills. Or a required capstone course for accounting majors that requires integration and problem solving of complex issues.

Financial accounting courses should be reviewed to determine whether bookkeeping skills can be incorporated. Or a non-credit mandatory bookkeeping skills course should be developed for accounting majors.

Recommendation 2- Nontechnical and EI skills requiring an increase in emphasis

This recommendation addresses findings #12, #16, #17 and #24.

University accounting programs should develop and incorporate into the accounting curriculum a course that addresses customer relationships and customer service.

The current curriculum of university accounting programs should be reviewed to identify opportunities to develop learning and assessment strategies which promote oral and written communication skills.

The coverage of ethics/transparency in university accounting programs should be reviewed. While employers see this skill as well developed, graduates believe that this is a skill needing further development in university. This is an important aspect of professional accounting and graduates should be cognizant of ethics development in university accounting programs.

Recommendation 3- Technical skills requiring a decrease in emphasis.

This recommendation addresses findings #18, #19 and #20.

The current content and role of management accounting and information technology in university accounting programs should be reviewed. Perhaps there is an opportunity to reassign resources from this area to another component of the curriculum requiring attention.

The current content and role of the finance, taxation and strategy courses in university accounting programs should be reviewed. A possible realignment of these technical courses between universities and professional accounting bodies should be considered.

Recommendation 4- Technical skills requiring no change in emphasis

This recommendation addresses finding #22.

The current content and roles of financial accounting and audit and assurance in university accounting programs should not be changed until such time necessitated by changes in accounting and auditing standards.

Recommendation 5- EI skills requiring no change in emphasis

This recommendation addresses findings #12, #21 and #23.

University accounting programs should continue to develop the emotional intelligence skills of teamwork and collaboration, building bonds, achievement and adaptability in accounting students. With the exception of the EI skills of service and transparency (as noted in Recommendation 2) the other EI skills are not expected to be developed in university accounting programs at this time.

Recommendation 6- Consultation with employers and graduates

This recommendation addresses findings #10, #11 and #25.

Universities should assess the opinions of employers and graduating accounting students periodically to determine whether there is correspondence between the skills developed in university accounting programs and the skills required in the accounting workplace. This can be done by exit interviews, focus groups and surveys.

Recommendation 7- Research Agenda

This recommendation addresses findings #1 to #9 and #26.

The focus of the debate in the accounting education area should move from major "gaps" in accounting education. Employers and graduates share similar attitudes about many skill areas. There appears to be more concern over technical rather than nontechnical (including EI) skill development in accounting graduates.

Finding #26, relating to gender differences, is addressed in the further research agenda sub-section below.

Implications for Practice

University accounting curricula should be reviewed in light of the findings and recommendations of this study. Universities are accustomed to program reviews which normally focus on technical skill development. It is important that such reviews also involve mapping of nontechnical and EI skills.

University accounting programs should resist suggestions to incorporate "emotional intelligence" on an aggregate basis into university accounting programs. The development of EI in university accounting programs should follow a deliberate and focused strategy of incorporating the skills seen as valuable for entry into the accounting workplace by employers and graduates. This would require specific identification and examination of the individual EI skill areas in the curriculum. This approach may also help implementing Recommendations 2 and 5 of the study. It is recommended that as part of program review the EI skills be mapped in the university accounting curriculum. This may take the form of an "emotional intelligence audit".

Contribution

DBA programs are designed to develop researching professionals who make an original contribution to knowledge in a field along with a contribution to the improvement of practice (Bareham *et al.*, 2000). The study's contribution to theory and practice are outlined in the following two sub-sections.

Contribution to theory

The study used the theoretical framework of neo-correspondence to provide the context for the investigation of whether university accounting programs provide the emotional intelligence skills accounting graduates need for success as professional accountants. Neo-correspondence theory has only been applied once in an accounting education context (Pan and Perera, 2012) and never in the area of emotional intelligence. The study demonstrated the value for university accounting educators to consider the connection between university and the workplace. The study found that there is support for correspondence between employer expectations for the skill set requirements for accounting graduates and the skills developed in university accounting programs. This means that employers expect correspondence between the skills seen as important in the workplace and their expected development in university. There was also support for "inverse correspondence" in that employers do not expect that universities should develop skills that are seen as less important in the workplace. As previously noted this aspect of neo-correspondence has not been previously documented.

The emotional intelligence field, in general, is still relatively young and thus this research study is one of the first to seek feedback from accounting employers and accounting graduates specifically on the 19 skills contained in Goleman's EI framework. The study identified that some of these 19 EI skills are relevant for entry level accounting graduates entering the workforce and should be developed in university accounting programs. The study also found that the other EI skills might be less relevant for entry-level in the accounting profession and not expected to be relatively developed in accounting graduates leaving university. The study examined the 19 EI skill areas in prioritized integrative strategic maps to draw attention to the relative importance of each skill, the extent it has been developed in accounting graduates and the expected development of the skill in university.

As part of the literature and theoretical review for the research study, an analysis of over 50 studies covering a 35 year period in the research area was conducted. This was noted in Section 1 of the thesis and is included in the Appendix. This analysis provided insights into the types of studies completed in the research field. According to the studies reviewed, the most commonly studied stakeholder group in accounting education is current university students (26%). Next are employers (18%), curriculum reviews (14%), academics (8%) and recent accounting graduates (6%). The current study investigated the attitudes of employers and graduates and thus produced data about these two underrepresented stakeholder groups.

Another significant observation about the accounting education research field is that 76% of the studies reviewed did not have a theoretical foundation. These findings are consistent with the results of reviews of higher education research where there have been criticisms of the extent of theory use (Tight, 2004) and the type of theory use (Haggis, 2009).

Contribution to practice

In additional to theoretical contributions in the accounting education field, this study has provided contributions to accounting practice.

The study has implications for university accounting curriculum. As noted in the previous section the study has made a number of recommendations regarding technical and nontechnical skill development in university accounting programs. The value of the study has been to inform university accounting educators about the ranked importance of various technical and nontechnical skills according to employer and graduate perspectives. Moreover the study produced data about the perceived extent of development of these skills in accounting graduates and their expected development in university. This might provide further benefits to universities in terms of resource optimization. Even in the best of economic times university resources are scarce and thus should be utilized in the most relevant and efficient manner

The survey instruments that were developed for the study, including the skills inventory of technical and nontechnical skills, might be useful to accounting educators that want to investigate these issues further in professional accounting programs or in a university accounting curricula.

The study is also relevant to accounting students as it will be beneficial for them to understand what accounting employers expect in terms of a desirable skill set for entry level accounting graduates. As a result the findings in the study might help accounting graduates improve their employability.

The study has implications for professional accounting programs given their close affiliation with universities. University accounting programs design their curriculum in accordance with the guidelines of the professional accounting bodies. Thus, any proposed changes to university accounting education may impact this accreditation.

There are plans to disseminate the findings of the study. A summary of the results will be sent to the Atlantic School of Chartered Accountancy as their Board of Directors has expressed interest in the findings. Also, Memorial University is starting a review of their undergraduate business curriculum and these findings will be relevant to that review. Likewise, it is intended to submit a paper, based on the thesis, to the Atlantic Schools of Business Conference. This conference will have delegates from every university in Atlantic Canada and will be an excellent means to distribute the findings of this study of accounting graduates and accounting employers in the region. Finally, it is planned that the study and its results will be the basis of a submission to practitioner (e.g. *CPA Magazine*) and academic journals (e.g. *Issues in Accounting Education*) in the next six months.

The next sub-section will present the limitations of the study.

Limitations

The study utilized surveys to assess the attitudes of accounting employers and graduates about the skill set requirements for professional accountants. Thus, the study is impacted by the survey limitations. For example, insights into the why and how underlying responses was not obtainable. This does, however, present an opportunity for further research which is discussed in the next sub-section.

Given that data collected was limited to Atlantic Canada only, caution must be exercised in generalizing the results to other regions in Canada and other jurisdictions in general. The professional accounting program and university accounting curriculum in each Canadian region are however similar as all Chartered Accounting (CA) students write the same nationally administered Uniform Final Evaluation (UFE). Notwithstanding this desired consistency there might still be minor regional differences which would impact generalizability. Likewise, the study is based on the employers of accounting graduates in Atlantic Canada. The views expressed may not reflect the views of accounting employers in other parts of Canada. However, given the globalization and regulation of the accounting profession, this limitation is somewhat mitigated.

The study focused exclusively on accounting graduates articling for the CA program and different results might have been obtained if accounting graduates pursuing other professional accounting programs were included. Also, there might have been a potential bias from self-reporting by graduates in rating their own development in the various skill areas. Similarly, the employers included in the study were only the ones that were approved to train CA students. If a wider range of accounting employers were included in the survey other findings might have emerged.

It is also acknowledged that different results might have been obtained if a different EI framework was used. While Goleman's identified competencies has been widely cited, there are other EI frameworks. Similarly, the study did use neo-correspondence theory and thus was limited by this theoretical perspective. Also, the study did not capture all respondent attributes that might have influenced attitudes towards the various skill areas. For example, some respondents might have had prior life experiences relevant to their attributes about the importance of various technical and nontechnical skills in the accounting workplace.

Finally, the recommendations of the study are based on the findings received. It is recognized, however, that other factors must be considered when university accounting programs are designed. For example, adherence with professional accounting program requirements, available resources in university and university learning objectives.

Further Research

This study has produced several suggestions for further research.

The study can be modified to investigate the attitudes of university accounting educators and/or professional accounting bodies about skill development in accounting graduates. Qualitative follow up work (e.g. interviews) might help better understand how interventions could be designed to incorporate the specifically university-relevant skills identified in the study. Such qualitative work could also seek insights from a broader stakeholder perspective to explore the findings of this study from the perspective of the professional accounting bodies, and current university accounting students. Also, longitudinal follow-up with the two groups surveyed would be interesting.

Given the results of the study around technical skills, particularly from the employer perspective, an extension of this research should examine the concerns over technical skill development further. Also, the study did reveal some intriguing findings about specific EI skills and their suitability for development in university accounting programs. Further work could be done on these individual EI skill areas to determine appropriate opportunities and platforms for development.

Further research after this study could involve a content analysis of the university accounting curriculum or an “emotional intelligence audit" to determine where some EI skills are currently being developed and where others could be developed. In general, the research agenda in this area could move away from a focus on gaps in accounting education to further investigation on correspondence between the workplace and the university accounting curriculum.

The study has focused on skill development and expectations in university accounting programs. It would be meaningful to survey accounting graduates and employers about the skill set development and expectations in professional accounting programs. The existing study can also be adapted and replicated in other regions of Canada and possibly Ireland and the United Kingdom given the similar accounting frameworks. Thus, comparative studies would be a logical extension to the research. Likewise, on a broader level, this research might be relevant to education in other professions such as law and medicine.

The study did show that there were some differences in responses on the skill set requirements for professional accountants from the perspective of accounting graduates based on gender. Further research into gender differences could attempt to resolve these anomalies.

Finally, there are other dimensions to the subject area that would be worth exploring further such as the relationship between culture and EI, student motivation, tensions between universities and employers and the role of technology in the classroom. The last area is very topical and is noted in recent publications as an avenue for future scholarship in the accounting education field (Apostolou *et al.*, 2013).

Concluding Remarks

The work of professional accountants have broadened to include a wider range of skills normally associated with managers and competencies such as those encompassed by emotional intelligence (Jones and Abraham, 2008; Kermis and Kermis, 2010; Siegel *et al.*, 2010). This is concerning given that universities are being criticized for producing accounting graduates who are deficient in emotional intelligence and who fail to meet the demands of the marketplace (Cook *et al.*, 2011; Esmond-Kiger *et al.*, 2006; Myers and Tucker, 2005; Visser *et al.*, 2010; Wells *et al.*, 2009).

The study provided an investigation of employer and graduate attitudes on the skill set requirements for professional accountants and whether university accounting programs develop these skills. Specifically the study asked whether universities are developing the EI skills an accounting graduate needs. The answer to that question that has emerged from the study is relatively positive. The findings of the study suggest that a gap in university accounting education may not be as big as contended. The results show that employers actually consider some EI skills (e.g. teamwork and collaboration, building bonds, achievement and adaptability) as being important and well developed in accounting graduates. While employers and graduates acknowledge the deficiency of some EI skills (e.g. accurate self-assessment, organizational awareness, change catalyst, developing others, empathy, influence and self-control) in graduates, they do not have expectations that these skills be developed in university. One EI skill (service), however, was considered by employers and graduates to be important but not well developed in accounting graduates through their university accounting programs.

Somewhat surprisingly, however, were the findings around technical skills. While some technical skills (e.g. financial accounting and audit and assurance) are considered well developed in graduates others such as bookkeeping, integrative thinking and analytical skills are viewed as important but not well developed. Similarly, after almost 40 years of debate about the importance of communication skills for accounting graduates, the study did find that employers still view oral and written communication to be important but not well developed in accounting graduates through their university accounting programs.

The study has provided recommendations that offer guidance to university accounting educators in planning and implementing accounting curricula that incorporates market expectations about the professional skill requirements for accountants. It is intended that these recommendations along with further research in the field will improve the degree of correspondence between the skills seen as important in the accounting workplace and those covered in university accounting programs.

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SECTION 4: Reflective Log - Extracts

Introduction

Section 4 of the Doctorate of Business Administration (DBA) thesis contains extracts from the researcher's reflective log which chronicles the DBA research journey at the Waterford Institute of Technology (WIT).

One of the aims of a DBA program is to develop the capabilities of a reflective practitioner (Banerjee and Morley, 2013; Bareham *et al.*, 2000). Johns and Graham(2000) view reflection as a "window through which the practitioner can view and focus self within the context of her/his own experience in ways that enable her/him to confront, understand and work towards, resolving the contradictions within practice, what is desirable and the actual practice" (p.34).

After the introduction, Section 4 will present reflective log extracts from the various stages during the DBA program. These will include:

DBA Stage 1: DBA Induction, August 2010
DBA Workshop 1 (Professional Skill Development), October 2010
DBA Workshop 2 (Advanced Management Studies), February 2011
DBA Workshop 3 (Research Design), October 2011
DBA Workshop 4 (Data Analysis), February 2012
DBA Workshop 5 (Research Paper - Preparation & Delivery), October 2012

DBA Stage 2: Doctoral Colloquium (Conceptual Paper), December 2012
Working Paper Series 1 (Philosophy & Research Methodology), May 2013
Working Paper Series 2 (Preliminary Findings), October 2013
Working Paper Series 3 (Results), March 2014

DBA Stage 3: Thesis Preparation, May 2014

DBA Stage 1

DBA Induction, August 2010

I had a lot of time to reflect on the DBA Induction Workshop as I travelled for almost 15 hours after I left WIT. I was honestly expecting to leave the DBA Induction overwhelmed – convinced that I would not be able to complete this program due to the demands of the program combined with the demands of my own life. I learned that yes it will be challenging but ... I feel that I can handle it. I was energized by the faculty presentations and inspired by my classmates. I learned that I still have a capacity and desire to learn.

My other reflection on the DBA Induction Workshop was especially insightful. It occurred to me that I have spent almost 15 years focusing on the success of others – in particular the students I have taught or mentored. It really hit me when I left WIT that I enjoyed focusing on my own success again. I was afraid that I had lost the drive to excel academically. It really felt incredible to be in a classroom again – on the student side – and to have homework to do!

I did find this reflection piece very challenging to write. I have never done reflection pieces before. Given that my training is in accounting which is very much a "hard" subject it is a real challenge to write my thoughts on paper. It was challenging – but good. Definitely the theme for my experience with the DBA so far.

Some of the key insights from this time period are included below.

 # 1 *- The DBA program will be challenging but manageable with hard work and discipline.*

#2 *- Reflection will be an area to work on throughout the DBA program.*

DBA Workshop 1 (Professional Skill Development), October 2010

One of the objectives of the Professional Development Workshop was to start identifying the research topic. This really was an intimidating thought on the start of day one of the workshop when I read it on the slides that were distributed to the class. I remember my classmates Monica and Aileen telling me that when they completed their masters program they often encountered items that they found "scary" and their approach was to trust the process. So in the first hour of day one of the workshop I thought of this and relaxed. I am going to trust the process.

Day 2 of the workshop brought us back to the notion that we need to become "reflective practitioners". I was skeptical about reflection prior to starting the DBA but I am starting to see the value and purpose. I found it a little easier writing in the reflective log. Deep breath. I will continue to trust the process.....for now.

Some of the key insights from this time period are included below.

> ***# 3*** *- Identifying the research topic for the DBA thesis is a critical decision and should be done as soon as possible.*
>
> ***#4*** *- Reflection will be a valuable and critical part of the DBA program.*

DBA Workshop 2 (Advanced Management Studies), February 2011

When I left the DBA Induction in August I was sure that I wanted to research something in accounting because of my background and connections in the area. While I did not know the specific area I was very certain that I did not want to research a technical accounting topic. I knew it would be boring and I would not be engaged.

A few years ago I had read something about emotional intelligence and I have to say it intrigued me. I can remember consciously thinking – I wish some accountants had more emotional intelligence! So at that point I began to wonder if this could develop into a research area. I started my computer and began "googling". I was shocked as there actually were some good references. Then I came across a reference to an article entitled "Emotional Intelligence in Undergraduate Accounting Students: Preliminary Assessment". One of the co-authors of this paper teaches at a Canadian university and I noted her name (Dr. Darlene Bay). I emailed Dr. Bay the next day and within two days had heard back from her. She was very helpful and interested in what I was doing. She emailed me several papers she has published and some she was working on. I went on to email a few more researchers in the accounting education field and they all were very helpful. As was noted in the Workshop this was a great feeling to actually communicate with a successful researcher in your potential research area! I think I have found my topic.

Some of the key insights from this time period are included below.

> ***# 5*** *- The topic for a thesis or research project has to be something that has personal interest for the researcher.*
>
> ***#6*** *- The accounting education research field appears to be very supportive.*

DBA Workshop 3 (Research Design), October 2011

For the last few months I have obtained many articles on emotional intelligence in general and some very specific to accounting students/professionals. While there is definitely some research in this area there is certainly room for more. The broader research area appears to be not so much about emotional intelligence in accounting students but nontechnical vs. technical skills. After reading so many articles I really became focused and motivated. I would like to focus on what accounting students view as the necessary "professional skills" they will need to

succeed as accountants versus what the expectation their employers have of them with regard to professional skill development.

As an accounting educator this is very interesting. Are we letting our students down? I hope not. Should we change things in our curriculum? Probably. So many questions I have. All very relevant for me as a CA working in a university.

One of the key insights from this time period is included below.

> ***# 7*** *- The contribution to practice will be an important part of the DBA thesis.*

DBA Workshop 4 (Data Analysis), February 2012

Preparing for this Workshop was challenging. There was so much work to do for the quantitative and qualitative assignments. And my father was recently diagnosed with cancer. He had surgery and thankfully will be completely fine (no treatment, surgery was 100% successful) but still this was a really horrible time period for me.

I was very apprehensive about using NVivo for this project. I will admit that I felt the same about SPSS for the multiple regression assignment. I was amazed by how much I remembered from the Workshop. The reference notes provided by Dr. Sean Byrne were excellent. I was very happy with the NVivo experience. I think I was scared because I see myself as a quantitative person and I was afraid of qualitative data analysis (QDA). I was amazed by how user friendly the software was and I was very impressed with how organized the data becomes in the NVivo project.

Given the work I have done on this assignment I now realize that my DBA thesis could be done qualitatively. And my work with QDA these past two months has made me realize that qualitative data analysis does have features that quantitative research has. It does feel very scientific. I have to admit that I am having some second thoughts about the research design choice for my proposed research project. In-depth interviews and focus groups could work well. So I definitely will reflect further on these items when I start working on my DBA project next week.

It occurs to me that I have learned a lot about conducting research in the last 18 months. I began with limited knowledge and feel like I have come a long way in a short period of time. However, there is still lots to learn.

One of the key insights from this time period is included below.

> ***# 8*** *- Being open to other options in conducting research and conducting analysis in general is important.*

DBA Workshop 5 (Research Paper - Preparation & Delivery), October 2012

Over the last six months I have really reflected on my topic and the research methodology. I have really accumulated a lot of journal articles now. Also, after considering the qualatative route I will stay with my original plan of undertaking quantitative data analysis. The research questions and hypotheses can be better assessed quantitatively and this was the key reason for staying with this plan. It seems like that there might only be one of my classmates who will also have a quantitative based study and that is Tom O'Dwyer. We decide to keep in contact between workshops with telephone calls. This has been really helpful as we can bounce ideas off one another.

Dr. Aidan Duane led one of the sessions for this workshop about academic writing. He gave us a template to use and he reviewed our papers. This was a huge turning point for me in the

DBA process. Dr. Duane provided over 100 comments on my paper. Initially this was a little overwhelming and it was daunting at first to receive so much criticism. All of his comments were extremely helpful and provided tips I can use in future papers. I learned so much from this session. This will help me tremendously with the upcoming doctoral colloquium.

Some of the key insights from this time period are included below.

> ***# 9*** *- Constructive criticism is important and an invaluable part of the research process.*
>
> ***# 10*** *- The faculty members at WIT are very supportive and committed to the DBA program.*

DBA Stage 2

Doctoral Colloquium (Conceptual Paper), December 2012

In terms of the subject area I am feeling confident now. I have access to accounting students and accounting employers. I have read over 50 articles on the subject and I am deeply interested in the outcomes of this research. The conceptual framework, however, was a difficult task and I really struggled producing a model for my study. The example provided by Professor Bill O'Gorman in the last workshop was very helpful. I really worked hard on this and am happy that I was able to come up with a model to reflect my study. This exercise has helped me address some things in my current administrative position at Memorial University (my employer) as well. Critical thinking is a key part of my current role and I can see how the DBA is helping with this.

The completion of this research paper has been time consuming and challenging. However, every step was worthwhile. I feel more connected to the DBA now and more invested in my potential research area. I am so glad I trusted the process.

At the end of the doctoral colloquium the DBA class received notification as to who our supervisors (tutors) were. I feel so fortunate to have been assigned Dr. Sean Byrne and John Casey. Really looking forward to working with them.

One of the key insights from this time period is included below.

> ***# 11*** *- The art of reflection and critical thinking is a key part of the DBA program and important for professional practice.*

Working Paper Series 1 (Philosophy & Research Methodology), May 2013

Since December there has been a lot of DBA work to do. The questionnaires for my study were developed. Ethics clearance at WIT was obtained. My two supervisors have been extremely supportive and very helpful with all steps in the DBA process.

The presentation of the research methodology paper in May went well and I am glad to be taking a two week holiday before returning home. My big concern now is the launch of the surveys. This is exciting and worrisome at the same time. Thanks to the Atlantic School of Chartered Accountancy (ASCA) the surveys will reach all accounting graduates in Atlantic Canada pursuing the Chartered Accounting (CA) program and the employers they work for. This is a very efficient means to reach the population for my surveys. However, I do find it hard to let ASCA have control over the distribution as I would prefer to be hands on at all times with the study.

The surveys were launched and while there was a couple of small glitches it went fine. After a couple of hours I checked the survey site and there a few responses. This was very exciting!

Some many people have been supportive of this DBA journey. In addition to my supervisors (and other faculty at WIT) and the ASCA staff, the faculty and staff of Memorial University have been extremely helpful. Mike in our computer lab was very helpful with the survey program.
One of the key insights from this time period are included below.

> ***# 12*** *- There have been many individuals and entities that have been very supportive and committed to the success of my DBA program.*

Working Paper Series 2 (Preliminary Findings), October 2013

The overall survey response rates were very good. What a relief. This is probably the most enjoyable part of the DBA process to date – analyzing the data that was collected. For the next presentation in March the complete data set will be analyzed. I am looking forward to what story the data will tell.

The feedback from the examiners was really positive. They also suggested some things that I will definitely incorporate into the next paper. It was really great watching everyone's presentations. All of the topics have progressed so far.

I have started analyzing the data. Thankfully I remember how to use SPSS from the workshop with Dr. Mary Holden. Her notes are fantastic! I emailed her a couple of time and she was very supportive. One of my colleagues at Memorial, Dr. Lorne Sulsky, is an expert with SPSS and he has been very helpful as well.

Again I feel like I have learned so much about the research process. Just three years ago I would not have imagined that I would be as comfortable as I am with this.

One of the key insights from this time period are included below.

> ***#13*** *- The DBA program at WIT has provided the skills and foundation for the research journey.*

Working Paper Series 3 (Results), March 2014

The data is analyzed and there were some surprises in the results but that is fine. It was amazing how similar the employer and graduate responses were. There is a story emerging and it is interesting to be at this stage in the process.

It has occurred to me how different the DBA has been from my MBA education. As a course - based program there was no thesis and little opportunities to conduct research in the MBA. Likewise, there was no reflective practice in the curriculum. As the director of the MBA program at Memorial University, I will be evaluating the role of reflective practice in our graduate programs in the future. In general I really feel that I have learned so much in the DBA about research - in particular research appropriate and relevant to management practice.

One of the key insights from this time period is included below.

> ***# 14*** *- The DBA program has contributed immensely to my personal and professional development.*

DBA Stage 3

Thesis Preparation, May 2014

Since leaving the last working paper series in March, I feel motivated to get my thesis

completed. The feedback from the examiners was really encouraging. The hardest part is Section 3 which is the Conclusion and Recommendations. There is so much data. Thankfully my supervisors are excellent and very engaged with my thesis. The examiners provided some good feedback as well.

I have created five versions of Section 3 and with each new draft it appears to be coming together. This reflective log has helped with the recommendations and contribution piece as well. These are such important parts of Section 3.

I have a knowledge base of the subject area, have learned to critically evaluate it and produce something that adds to it. The scholarly intent of the DBA has provided the foundation for this work and I feel better equipped for professional practice. I would start this program all over again knowing what I know now.

Some of the key insights from this time period are included below.

 # 15 *- In my opinion the goal set out for the DBA program at WIT - the application of theoretical knowledge and the advancement of management and business practice - has been met.*

 # 16 *- Likewise, the DBA is about personal accomplishment and expanding horizons and that has been my experience.*

Concluding Remarks

The role of a reflective practitioner has been found to be a crucial factor influencing how an organization and individual learns. Banerjee and Morley (2013) acknowledge that reflection is not easy given the daily pressures of managerial work. The researcher would concur with these comments. The DBA reflective log started off as being one of the more challenging tasks for me thoroughout this DBA journay. However, over time I have seen the benefits of critical reflection and have now incorporated it into my professional practice.

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Appendix: Research Studies on Skills in Accounting Education

Research Studies on Skills in Accounting Education

Authors/Year/ Country	Research Method/ Research Questions/ Hypotheses	Sample Theory	Scope/Procedure	Research Findings	Recommendations/ Conclusions
1. Estes (1979) USA	Quantitative **No research questions/ hypotheses**	academics practitioners **No theory - literature review only**	Sample was asked to rank 57 skills and knowledge areas as to current and future importance.	All groups ranked written and oral communications as first and second most important respectively.	Communication skills are critical competencies for new accounting graduates.
2. Andrews & Sigband (1984) USA	Quantitative **No research questions/ hypotheses**	90 academics 38 practitioners **No theory - literature review only**	A survey of the perceptions of practitioners and academics about which communication skills are most important for new graduates.	Accounting students are not sufficiently skilled to handle job requirements with respect to written, oral and interpersonal communications. The perceptions of practitioners and academics were very similar.	Universities are not preparing accounting students adequately. More instructional time should be allocated to communication skills for accounting students (e.g. minimum two courses in communication).
3. American Accounting Association (1986) The Committee on the Future Structure, Content, and	Practical **No research questions/ hypotheses**	Curriculum **No theory - literature review only**	The committee studied the features of the expanding accounting profession and the current state of accounting education.	The Bedford Committee felt that the accounting classroom experience should be changed before the year 2000 due to anticipated changes in the accounting profession	The report stressed that future professional accountants need lifelong learning skills, critical thinking, interpersonal skills, and an understanding of accounting information systems.

Scope of Accounting Educations (The Bedford Committee) USA				in the 21st century. The Bedford Committee Report was one of the first to champion the idea that the prerequisites for professional accounting success was broader than just technical skills.	
4. Novin & Pearson (1989) USA	Quantitative **No research questions/ hypotheses**	166 Practitioners **No theory - literature review only**	A survey of the skills and characteristics required of entry-level public accountants.	The main positive attributes identified were: thinking, problem solving, listening and writing. the major weaknesses include writing, verbal and motivation.	Universities should decrease the time spent on procedural skills and increase the use of role playing, peer teaching, and oral exams.
5. Perspectives on Education: Capabilities for Success in the Accounting Profession (*The White Paper*). Sponsored by the Big Eight Accounting Firms (1989) USA	Practical **No research questions/ hypotheses**	Curriculum **No theory - literature review only**	*The White Paper* focused on the skills and knowledge required by accountants in public practice.	While *The White Paper* agreed with the Bedford Committee Report it highlighted nontechnical skills such as communication and interpersonal skills, as important for student development.	*The White Paper* urged all stakeholders in accounting education to work together to action the changes needed in accounting education The Big Eight accounting firms who produced *The White Paper* felt so strongly about the report's recommendations that they collectively contributed five million dollars to form the Accounting Education

					Change Commission (AECC) in the United States.
6. Novin *et al.* (1990) USA	Quantitative **Research questions:** **1. What professional skills and personal characteristics, in addition to technical accounting skills, are important to emphasize?** **2. What mix of accounting, business, and other courses is appropriate?** **3. What emphasis should be placed on the conceptual and procedural aspects of accounting areas such as auditing, financial, managerial, tax, systems, international, and not-for-profit?**	233 practitioners **No theory - literature review only**	Investigating the practitioner's point of view on improving the management accounting curriculum.	The need for types of communications skills in the curriculum were identified such as: writing, listening, verbal and overall management skills.	Reform of the management accounting curriculum is needed.

7. Novin & Tucker (1993) USA	Quantitative **No research questions/ hypotheses**	276 employers **No theory - literature review only**	The study identifies the relative importance of various academic subjects as they pertain to the work of a public accountant.	There is a strong need for entry level public accountants to gain substantial additional education in written and verbal communication.	Accounting curriculum changes are needed.
8. Aiken *et al.* (1994) USA	Quantitative Qualitative **No research questions/ hypotheses**	36 executives (focus group) **Results only.**	The perceptions of senior corporate executives about the requisite skills of business school graduates were studied.	The ability to communicate and get along with others is the most important skill of graduating business students. Practical business knowledge is valued more than theoretical knowledge. Computer and math skills are valued less than personal qualities such as leadership, dependability and creativity.	Business school curriculum should changed incorporate interpersonal skills development and practical business knowledge.
9. Siegel & Sorensen (1994) USA	Quantitative Qualitative **No research questions/ hypotheses**	800 employers (survey) 61 employers (telephone interviews) **No theory - literature review only**	The researchers surveyed American corporations to determine the skills needed by entering accounting professionals.	The researchers identified a "preparation gap" between corporate needs and accounting students' skills and knowledge. University accounting programs place too much emphasis on public accounting and not enough on	University accounting curriculum should be restructured to reflect more of what the market requires.

				management accounting.	
10. Zaid & Abraham (1994) Australia	Quantitative **Hypotheses:** 1. **There is no difference in the perceptions of academics and graduate accountants with respect to the contribution of the accounting curriculum to the development of oral and written communication skills.** 2. **There is no difference in the perceptions of employers and graduate accountants with respect to the occurrence of communication problems in early employment.** **3. There is no difference in the perceptions of academics and**	575 accounting graduates 157 employers 305 academics **No theory - literature review only**	A survey of the perceptions of academics, employers and accounting graduates about the role of communication skills in accounting education.	New accounting graduates experience communication-related problems in early employment.	The emphasis on communication skills in the accounting curriculum needs to be revisited.

	employers regarding the communication skills which should be emphasized in the accounting curriculum.				
11. Simons *et al.* (1995) USA	Quantitative **Research questions:** **1. Writing Apprehension** **a) Are business majors more or less apprehensive that the national norm?** **b) Are accounting majors more or less apprehensive than other business majors?** **c) Overall, and without major, are female business students more or less apprehensive than male business students?** **2. Oral**	640 students **No theory - literature review only**	A profile of communication apprehension in accounting majors and the implications for teaching and the curriculum.	The results show that accounting majors have higher apprehension toward both written and oral communications than other business majors. Gender differences were found only for oral communication apprehension, with female accounting majors reporting the highest apprehension.	Techniques must be developed to address communication apprehension in accounting students.

	communication apprehension **a) Are business majors more or less apprehensive that the national norm?** **b) Are accounting majors more or less apprehensive than other business majors?** **c) Overall, and without major, are female business students more or less apprehensive than male business students?** **3. Is there a correlation between writing apprehension and oral communication apprehension?**				
12. Usoff & Feldman (1998) USA	Quantitative **No research questions/ hypotheses**	268 students **No theory - literature review only**	The importance of non-technical and technical skills for career success were surveyed.	Students' ranked non-technical skills lower than technical skills. Undergraduate students ranked non-technical skills lower than graduates'	University curricula should be revised to increase students' awareness of importance of non-technical skills.

				ranking of non-technical skills.	
13. Lee & Blaszczynski (1999) USA	Quantitative **No research questions/ hypotheses**	71 employers **No theory - literature review only**	The importance of communication skills were ranked by type (e.g. oral, listening, writing and reading).	Oral communication, and listening skills are important, while reading and writing skills less important.	More "non-accounting" material should be included in accounting courses. Teaching methods should include more co-operative learning, case studies, and information technology.
14. Stowers & White (1999) USA	Quantitative **No research questions/ hypotheses**	78 practitioners **No theory - literature review only**	The perceptions of the effectiveness of the communication abilities of accounting professionals were investigated.	Effective communication skills, which are highly valued in public accounting firms, are not part of formal accounting education. Managers, however, desire these skills at the outset.	Communication skills should be included in the accounting in curricula.
15. Albrecht & Sack (2000) American Accounting Association USA	Quantitative Qualitative **No research questions/ hypotheses**	783 academics and practitioners (survey). 30 academics and practitioners (focus groups) **No theory - literature review only**	To thoroughly evaluate the state of accounting education in the USA.	The quantity and quality of students choosing to major in accounting is rapidly decreasing. Many professional accountants and accounting educators would not major in accounting if given the choice again. The accounting profession believes that the	Accounting educators need to undertaken a strategic planning process for the accounting curriculum. Every aspect of pedagogy should be examined and an investment made in faculty development.

				accounting education model is broken and obsolete.	
16. Borzi & Mills (2001) USA	Quantitative **No research questions/ hypotheses**	289 students **No theory - literature review only**	A survey of the communication apprehension between accounting and non-accounting majors.	There are gender differences in communication apprehension and accounting majors have higher communication apprehension than non-accounting majors.	The levels of communication apprehension in accounting majors should be improved (e.g. use communication activities that reduce communication apprehension).
17. Feldmann & Usoff (2001) USA	Quantitative **No research questions/ hypotheses**	150 students **No theory - literature review only**	A survey of the perceptions of accounting students about the importance of writing.	Students' perceptions on the importance of writing only increased after receiving detailed feedback from the instructor and a chance to resubmit.	Extensive feedback must be provided to accounting students by accounting educators if writing skills are to be improved.
18. Montano *et al.* (2001) UK & Spain	Quantitative **No research questions/ hypotheses**	214 employers	A survey of the perceptions of employers about the importance of a specified set of vocational skills and the level of ability of these skills exhibited by students.	Employers perceive deficiencies in several capabiliites that are deemed to be important.	The development of these skills should be a central concern for universities and accounting bodies. The skills should be obtained in an integrated way.
19. Rozell et. al. (2001) USA	Quantitative **No research questions/ hypotheses**	295 undergraduate and graduate business students	An empirical evaluation of the impact of EI on management development.	Accounting students rated lower in EI compared to other business students.	EI should be included within the core skills curriculum.

		Emotional Intelligence Theory.	**Measured EI of students using Goleman's emotional quotient (EQ) test.**		
20. Akers & Porter (2003) USA	Practical **No research questions/ hypotheses**	**No theory - literature review only**	Review of importance of EI skills in accounting profession.	EI is as valuable as IQ in attaining career success.	Organizations should provide appropriate EI training to employees.
21. Bolt-Lee & Foster (2003) USA	Practical **No research questions/ hypotheses**	Curriculum **No theory - literature review only**	Discussion of a framework for accounting education. Three categories of core competencies are discussed: functional, personal and broad business perspective.	Each category of competency addresses necessary skills for students to receive a well-rounded accounting education.	Employers, students and accreditation boards should use the framework as a benchmark for assessing an accounting program
22. Mc Phail (2004) Australia	Practical **No research questions/ hypotheses**	Curriculum **Emotional Intelligence Theory.**	Developing accounting students' emotional intelligence. Exploration of literature on emotion and reason. Review of Accounting & Business Ethics course at University of Glasgow.	Failure within accounting education to address a student's emotional intelligence.	Social and emotional learning should be developed within accounting education.

23. Jones and Sin (2005) Australia	Quantitative **No research questions/ hypotheses**	590 students **No theory - literature review only**	The perceptions and priorities of first year accounting students was surveyed with regard to generic skills and communication skills.	Communication skills were ranked higher than personal and interpersonal skills. Speaking skills ranked higher than writing skills.	Written and oral communications skills should be incorporated into the first year accounting curriculum.
24. Chia (2005) UK	Quantitative **Hypotheses:** **1. The number of initial job interviews is positively affected by the level of extra-curricular activities and the level of academic performance.** **2. The number of subsequent job interviews is positively affected by the number of initial interviews and the level of EI.** **3. The number of final job interviews is positively affected**	91 students **Emotional Intelligence Theory.**	The effects of emotional intelligence, extra-curricular activities, and academic performance on the job offers of multi-national accounting firms. **EI of students measured using the Emotional Quotient Inventory (EQ-i).**	The results indicate the relevance of EI in the job search process.	Accounting educators should plan their curricula more effectively to enhance the job placement of their graduates with the Big 5 firms.

	by the level of emotional intelligence, the number of initial job interviews and the number of subsequent job interviews.				
25. Hassall *et al.* (2005) UK & Spain	Quantitative **No research questions/ hypotheses**	214 employers **No theory - literature review only**	To establish the priorities, in terms of the development of vocational skills, of European employers of management accountants.	Employers felt that educational institutions do not pay sufficient attention to the development of nontechnical skills.	The development of work place requirements in terms of skills should be an explicit goal of educational institutions.
26. Karr (2005) USA	Practical **No research questions/ hypotheses**	**No theory - literature review only**	A discussion of the relevance of accounting education.	The accounting workplace is requiring graduates equipped with unique skills.	Educators must continue to ensure that what is taught can be applied adequately in the workplace.
27. Myers and Tucker (2005) USA	Practical **No research questions/ hypotheses**	Curriculum **No theory - literature review only**	Increasing awareness of emotional intelligence in a business curriculum. Exploration of the EI model. Review of student-centered EI learning	Indentifying, regulating and expressing one`s emotions are inherently communicative actions.	Incorporating EI theory into course work enhances personal growth and teamwork in the classroom. Overall business curriculum is enhanced.
28. Richardson (2005) Australia	Quantitative **Research questions:**	388 employers	A review of the curriculum requirements for entry-level	A "preparation gap" was identified between the perception and	University accounting courses should change in a context where diversity and flexibility are encouraged.

	1. How do employers of entry-level accountants in industry and commerce rate the performance of university accounting course in: **- preparing students for working in business organizations;** **- preparing students for management accounting careers;** **- teaching student quantitative skills, financial accounting and communication and interpersonal skills?** **2. In the opinion of employers of entry - level accountants in industry ad commence, is**	**Literature Review** **SERVQUAL (although the application of SERVQUAL is not explained)**	management accountants from the perspective of employers.	expectations of accounting employers.	

	there an appropriate balance between management accounting and external reporting in current accounting courses? **3. Of the accounting area knowledge and skills areas (AKSAs) covered as topics in university accounting courses, what is the relative importance of different AKSAs for entry-level management accounting positions working in industry and commerce?** **4. Is the coverage of different AKSAs appropriate? Importantly is there a gap between the expectations of employers of**				

	entry-level management accountants and the actual preparation of graduates? Are graduates over-prepared or under-prepared in any areas?				
29. Joyce *et al.* (2006) UK & Spain	Quantitative **No research questions/ hypotheses**	111 students **No theory - literature review only**	A study of communication apprehension in accounting and business education.	High levels of communication apprehension in accounting students were identified.	Accounting curriculum needs to be redesigned to address communication apprehension in accounting students.
30. Bay and McKeage (2006) Canada & USA	Quantitative **No research questions/ hypotheses**	47 accounting students 62 marketing students **Emotional Intelligence Theory.**	Preliminary assessment of emotional intelligence in undergraduate accounting students. **Measured the EI of accounting and marketing students using the Mayer-Salovey-Caruso EI test (MSCEIT).**	Accounting students do not have high levels of EI.	Measures should be taken to specifically target the development of EI among accounting (and other) business students.
31. Carr *et al.* (2006) New Zealand	Quantitative **No research questions/ hypotheses**	237 accounting graduates **No theory - literature review only**	This study investigates the views of accounting graduates on the accounting curriculum.	Interpersonal and oral communications skills were important for positions after graduation but were not emphasized as	There should be more emphasis on the development of nontechnical skills in the accounting curricula.

				part of the accounting curriculum in university.	
32. De Lange *et al.* (2006) Australia	Quantitative **Research questions:** **1. Which generic skills do graduates perceive as the most important for career success in accounting?** **2. How do graduates currently perceive the emphasis placed on particular generic and technical skills in their undergraduate degrees and to what extent are differences in responses explained by gender, age or study mode?** **3. Do graduates perceive there is a deficiency in emphasis in generic and**	310 accounting graduates **No theory - literature review only**	This study investigated the emphasis placed on technical and generic skills developed during undergraduate accounting courses from the graduate perspective	The nontechnical skills identified as being important by accounting alumni were communication and professionalism.	There should be more emphasis on the development of nontechnical skills in the accounting curricula.

	technical skills acquired in their undergraduate degree?				
33. Esmond-Kiger *et al.* (2006) USA	Quantitative **No research questions/ hypotheses**	281 accounting students 178 other business students. **Emotional Intelligence Theory.**	To determine the extent of accountants' EI competencies and to examine the GPA and EI of accounting students. **Measured EI of students using Weisinger's EI instrument.**	Accounting students have significantly higher GPA than other business students but self-report significantly lower levels of EI. No significant relationship found between GPA and EI.	Emotional intelligence should be incorporated into the accounting curricula.
34. Foley (2007) Ireland	Practical **No research questions/ hypotheses**	**No theory - literature review only**	To provide an overview of the importance of people skills in the accounting profession.	Personal leadership is required at every level of an organization.	CA firms should invest in developing the personal leadership of their staff.
35. Jones and Abraham (2007) Australia	Quantitative **Research questions:** **1. Are there differences among the perceptions of academics, practitioners and**	82 students 28 practitioners 31 academics. **No theory - literature review only**	Perceptions of practitioners, academics and students about the changing role of accountants and the implications for accounting education.	Practitioners felt that accounting education needs to adapt to meet the needs of the profession. Academics are more concerned with providing the essential skills for a well rounded education.	Call for more research about the adequacy of the existing education for accounting students.

	students of the roles and skills required by accounting graduates? **2. Are there differing opinions within the academic group based on whether they have worked as a practicing accountant?** **3. Are there differences between the perceptions of academics and practitioners?** **4. Are there any particular tasks or skills which are perceived as more important to different groups?** **5. Are there differences in the perceptions of academics and students?**				
36. Whitefield (2007)	Quantitative Qualitative	71 academics	A survey of lecturers' perspectives of personal and	Academics perceive that some skills (e.g. empathy & conflict	Accounting educators have to consider how to incorporate these more complex skills

Australia	**Research questions:**	**Case study**	interpersonal skills development of accounting students. Follow-up with face to face semi-structured interviews.	resolution) are not amenable to development in the curriculum.	(which are valued by the profession) into the university accounting program.
37. Kavanagh and Drennan (2008) Australia	Quantitative Qualitative **Research questions:** **1. What professional skills do graduating accounting students perceive as having the highest priority for career success?** **2. To what extent do graduating accounting students perceive that these professional skills have been developed as part of their degree programs?**	322 accounting students 28 accounting practitioners **No theory - literature review only**	Evidence from student perceptions and employer expectations about the skills and attributes an accounting graduate needs.	Students are becoming aware of employer expectations regarding communication, analytical, professional and teamwork skills. Employers are also requiring "business awareness" and knowledge of the "real world".	Essential non-technical and professional skills and attributes need to be developed in university accounting programs.

	3. What professional skills do employers expect accounting graduates to possess at entry level? **4. What is the difference between student perceptions and employer expectations in terms of the professional skills that are important for a career in accounting?**				
38. Jones (2008) Australia	quantitative practical **Research questions:** **1. What skills so professional accountants require?** **2. How do the skills required by professional accountants relate**	104 academics Curriculum **Grounded theory**	The link between emotional intelligence and accounting graduate qualities. Review of accounting curriculum and survey of the EI of accounting academics using the MSCEIT. **Measured EI of accounting academics using**	The curriculum does provide some opportunities for the development of graduate qualities but on an ad-hoc basis. Accounting academics did not see the value of incorporating EI into the accounting curriculum. Accounting academics that had worked in practice had higher EI	More research is needed on the value of experience as a component in enhancing EI.

	to the graduate qualities expressed by Australian universities? **3. Which of those skills could develop Emotional Intelligence?** **4. Do the EI levels of academics impact on their ability to teach, impart pr provide opportunities for students to develop EI?** **5. Is the EI of academics in the Faculty of Commerce at UOW dissimilar in different schools within the faculty?** **6. Does the EI of academics vary dependent on the age, sex or professional background?** **7. How can EI be imparted to**		**MSCEIT.**	than other business academics.	

	students within the Faculty of commerce? **8. Do staff perceptions of EI impact on their ability to teach EI and/or the style of their teaching?** **9. Are there any other factors that may enhance development of EI skills?**				
39. Milner & Hill (2008) UK	Qualitative **No research questions/ hypotheses**	34 accounting academics **No theory - literature review only.**	The views of accounting academics about the skills of accounting students were studied.	The researchers identified a "skills gap" in UK accounting students suggesting that these students lack the communication and problem solving skills expected by their employers.	Further research on what role 'skills" should have in accounting education.
40. Hancock *et al.* (2009) Australian Learning & Teaching Council Australia	Quantitative Qualitative **No research questions/ hypotheses**	322 accounting students 47 practitioners, employers and students (interviews) **No theory -**	An investigation into the nontechnical skills required of accounting graduates into the future.	The skills deemed most inadequate in accounting graduates by stakeholders and impeding career advancement were communications and problem solving.	A number of initiatives were proposed to assist accounting educators in enhancing the nontechnical skills of accounting students.

		literature review only.			
41. Wells *et al.* (2009) New Zealand	Quantitative Qualitative **No research questions/ hypotheses**	32 graduates **Literature review.** **Professional Capability Framework.**	A study of the capabilities considered most important for successful practice in accountancy during the first years after graduation.	The role of university courses in developing professional capabilities in teamwork and providing real world learning experiences were identified as areas for improvement. Emotional intelligence, as represented by personal and interpersonal capabilities, may have emerged as being more significant than professional skills.	There needs to be a balance between university and workplace environments for preparing and developing professional capabilities.
42. Jackling & De Lange (2009) Australia	Quantitative Qualitative **Research questions:** **1. What emphasis did graduates perceive was given in academic programs in terms of technical and**	174 graduates 32 employers **No theory - literature review only.**	An investigation of whether accounting graduates' skills meet the expectations of employers.	Employers require a broad range of generic skills that graduates indicated were not being adequately taught in their accounting course. the greatest areas of skills divergence for employers were: team skills, leadership potential, verbal communication and interpersonal skills.	Technical accounting skills should be taught by the professional accounting bodies (the training phase) while universities should focus on the education experience and the development of generic skills (the educating phase).

	generic skills? **2. What did employers perceive as the most important graduate skills in their potential employees?** **3. Is there a convergence or divergence between the two groups in terms of perceived skills taught in programmers and skills required for employment?**				
43. Bui & Porter (2010) New Zealand	Qualitative **Research areas:** **1. The competencies desired in accounting graduates** **2. The competencies graduates form the case study program are perceived to**	18 students 11 employers 5 graduates 6 academics **Literature review.** **Introduction of the Expectation-Performance Gap in**	A study to examine the validity of a proposed structure of accounting education's expectation-performance gap.	An "expectation-performance gap" in accounting education was identified because of the perceived gap between the expectations of accounting employers and their perception of the competencies accounting students should have.	Support for the proposed framework was suggested. There is an expectation gap which are the differences in the expectations of accounting employers and educators. There are constraints on the effectiveness of accounting education. And there are differences in the competencies accounting educators can reasonably expect accounting graduates to acquire and thus employers perceive the

	possess **3. The role of university accounting education** **4. The effectiveness of the case study program in developing graduates' competencies** **5. Students' expectations of the accounting profession and accounting education, and their academic ability and aptitude** **6. The major constraints on teaching effectiveness** **7. How teaching quality might be improved.**	**Accounting Education.**			graduates possess when they enter the work force (the performance gap).
44. Kermis & Kermis (2010)	Practical **No research**	Curriculum **No theory -**	An incremental laboratory experience was designed to	Students should take ownership of their professional future	Technical skills are necessary but not sufficient for a successful accounting

USA	**questions/ hypotheses**	**literature review only. Link to EI theory.**	create an environment for soft skills development (grounded in the context of Goleman's EI).	early in their accounting education.	career.
45. Siegel *et al.* (2010) Practical **No research questions/ hypotheses**	Curriculum **No theory - literature review only**	A 20 year review of what accounting educators teach and accounting practitioners do.	A "synchronization gap" was identified as this study revealed that the required courses found in most undergraduate accounting courses have remained unchanged for almost 25 years.	These researchers urged universities to synchronize accounting curricula with market demands.	
46. Tatikonda (2010) USA	Quantitative **Hypotheses:** 1. The number of senior-level cost/ management accounting courses available is significantly smaller than the number of other available senior level accounting courses. 2: The number of required senior-level cost/management	Curriculum **No theory - literature review only**	An analysis of the curriculum of AACSB-Accredited undergraduate business programs.	The number and level of cost/management accounting courses are limited and offered primarily at the junior level.	The accounting curriculum needs to change.

	accounting courses is significantly smaller than the number of other required senior-level accounting courses. 3: At most universities, the number of senior-level cost/management accounting courses available is limited to one or two. 4a: Operations management courses are not required. 4b: When an operations management course is required for majors in accounting, it is not a prerequisite for any accounting courses.				
47. Visser *et al.* (2010) Canada, South Africa & USA	Quantitative **No research questions/ hypotheses**	429 students **Emotional Intelligence Theory.**	An investigation of psychopathy, and antisocial behavior in undergraduate students.	EI was negatively correlated with antisocial behavior, and psychopathy was highly positively correlated with	EI was negatively correlated with antisocial behavior, and psychopathy was highly positively correlated with antisocial behavior.

				antisocial behavior.	
48. Cook *et al.* (2011) Canada & USA	Quantitative **Hypotheses:** **1. The average EI score of the fourth year students will exceed the average for the first year students.** **2. The increase in EI scores from first to fourth year students is greater for liberal arts majors than accounting majors.** **3. The increase in EI scores from first to fourth year accounting students is greater in a program that contains more required non-business courses.** **4. Students with work experience will score higher in EI.**	251 accounting students 179 liberal arts students. **Emotional intelligence Theory.**	The role of emotional intelligence with respect to accounting education and work experience. The relationship between the four components of work experience and EI analyzed. **EI (using MSCEIT) of first and fourth year accounting and liberal arts students measured.**	Accounting students possess low EI. Students with more work experience score higher on EI scale.	Education interventions specifically targeted at EI needed in accounting education.
49. Stivers &	Quantitative	375 business	An investigation of	Accounting majors	Technical competence may

Onifade (2011)	**No research questions/ hypotheses**	students. **No theory - literature review only.**	student perceptions about the knowledge, skills, and abilities for accounting.	rated the technical skills higher than the nontechnical skills. Female ranked the skills of communication, creativity, and leadership significantly higher than the males.	be more important than nontechnical skills at the entry level. However, for advancement to senior, manager, and partner, nontechnical skills become more important. Future research should be made to identify successful ways to improve students' nontechnical skills and to increase their awareness of the importance of these skills.
50. De Lange & Watty (2011) Australia	Practical **No research questions/ hypotheses**	**No theory - literature review only.**	A review of the challenges facing accounting education in Australia.	The links between the profession, academics and industry to developed quality graduate skills need to be built.	Universities need to develop work experience programs that have been shown to develop graduate skills greatly.
51. Nicholls *et al.* (2012)	Quantitative **Hypotheses:** **1. The score on the EQ-i test can be increased in response to a job description that calls for a high EI.** **2. The score on the MSCEIT test**	154 accounting students **Emotional Intelligence Theory.**	The impacts of EI test on the hiring process for accounting students. **EI (using MSCEIT and EQ-i) measured.**	Students can purposely change their EI score to fit the job description. Neither EI test is clearly better than the other in the hiring process.	More research needed in the relationship between IQ and EI to determine whether high IQ students are better able to understand the EI test and reliably manipulate the results.

	cannot be increased in response to a job description that calls for a high EI. **3. The score on the EQ-i test can be decreased in response to a job description that calls for a low EI.** **4. The score on the MSCEIT test cannot be decreased in response to a job description that calls for a low EI.**				
52. Pan & Perera (2012) Australia	Quantitative **No research questions/ hypotheses**	337 employers Curriculum **Neo-Constructive Alignment Theory & Neo-Correspondence Theory.**	A survey of whether Australian universities produce accounting graduates with market expected knowledge, skills and competencies.	Existing university accounting programs may not always meet the market expectations.	Further studies should be done to investigate how the discrepancies between university accounting programs and market expected knowledge and skills can be reconciled.

53. Jackson (2014) Australia	Quantitative **No research questions/ hypotheses**	674 business graduates	An examination of personality using the Ten-Item Personality Inventory (TIPI), and variations in traits across demographic/ background characteristics.	Graduates are relatively high in extroversion, conscientiousness and emotional stability and low in openness and agreeableness.	The findings are largely positive for organizational performance, but raise concern for organizational well-being, effective leadership and innovativeness. There is some alignment between the findings and documented deficiencies in graduate performance, highlighting areas for intervention.