

**ACCOUNTING PRACTITIONERS' PERSPECTIVES OF
PROFESSIONAL SKILLS AND AUDIT CAPABILITIES OF FIRST
YEAR TRAINEE ACCOUNTANTS**

by

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DECLARATION

I, Rolien Kunz, hereby declare that the dissertation

**ACCOUNTING PRACTITIONERS' PERSPECTIVES OF
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FIRST YEAR TRAINEE ACCOUNTANTS**

submitted for the degree of Master of Commerce in Auditing at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at another university. Where secondary material is used, this has been carefully acknowledged and referenced in accordance with university requirements.

R Kunz

October 2016

STRUCTURE OF THE DISSERTATION

The dissertation is structured to include two research papers, each with its own reference list, and these are included as chapters 2 and 3 of the complete dissertation.

Chapter 1 provides a preliminary literature review, states the research problem and research objective, and outlines the research methodology (with its own reference list). The dissertation is concluded in chapter 4 in which recommendations are made and areas of future research are identified and discussed.

ABSTRACT

ACCOUNTING PRACTITIONERS' PERSPECTIVES OF PROFESSIONAL SKILLS AND AUDIT CAPABILITIES OF FIRST YEAR TRAINEE ACCOUNTANTS

Accounting education at higher education institutions is influenced by various role players, each with their own expectations. Educators involved in accounting education are therefore required to balance the demands of higher education with those of the professional body that will accredit their students, while still delivering market-ready graduates fully equipped with the competencies employers expect, namely professional skills, technical knowledge and attributes such as values, ethics and professional attitudes.

The importance of professional skills and technical knowledge to the accounting profession, as well as the degree of exposure graduates are expected to have received at university level, is known, but the specific levels of capability and competence expected of graduates have not yet been quantitatively determined. As a result of this unknown level of capability that the accounting profession expects of its newly employed graduates, the size of the expectation-performance gap has also remained largely unknown. Although earlier research has indicated that graduates' actual capabilities with regard to professional skills and technical knowledge did not meet the expectations of accounting practitioners at the beginning of their traineeships, the extent of the expectation-performance gap worldwide, and in South Africa, has not yet been quantitatively determined.

The objective of this dissertation, in a research paper format, are to determine the expectation-performance gap firstly, by quantifying the levels of professional skills and technical auditing and assurance knowledge capability audit managers expect of newly employed first year trainee accountants, and secondly by determining whether the professional skills and technical auditing and assurance knowledge actually displayed by the newly employed first year trainee accountants meet the expectations of the audit managers. First year trainee accountants in the first three months of their training contracts will be referred to as *newly employed first year trainee accountants* for the remainder of the dissertation.

The findings indicate that audit managers expect newly employed first year trainee accountants to be capable of demonstrating seven of the 22 individual professional skills, with minimal or without supervision, whilst their expectations regarding these newly employed first year trainee accountants' performance of technical audit and assurance tasks in the first three months of their training contracts are lower. Audit managers do **not** expect newly employed first year trainee accountants to be capable of performing any of the 12 identified technical audit and assurance tasks without or even with only limited supervision.

The findings further show clearly that audit managers' expectations are not being met, as there were material expectation-performance gaps for all of the 22 individual professional skills being investigated, as well as for all 12 researched audit and assurance tasks. The sizes of the expectation-performance gaps for the professional skills being investigated varied between 37.9% (for newly employed first year trainee accountants' abilities to take responsibility for their own development) and 9.4% (for newly employed first year trainee accountants' abilities to display honesty and integrity). The audit and assurance task with the largest difference was the task requiring newly employed first year trainee accountants to consider and document the need to use computer assisted audit techniques to gather audit evidence (performance was 28.9% less than audit managers' expectations), and the technical task showing the smallest expectation-performance gap was that where newly employed first year trainee accountants were required to determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (performance was 14.6% less than audit managers' expectations).

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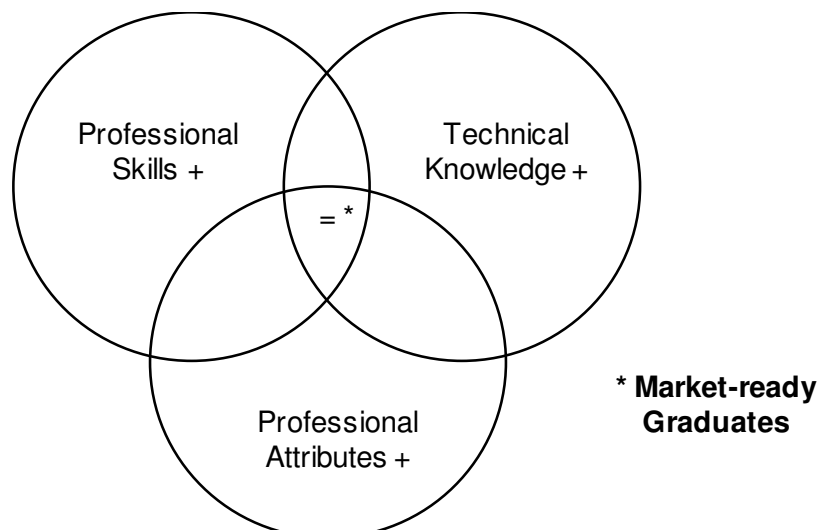
CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Accounting education at higher education institutions is influenced by various role players, each with their own expectations. In a South African context these role players include the Department of Higher Education and Training (DHET) (previously known as the Department of Higher Education (DHE)), the South African Institute of Chartered Accountants (SAICA) and the accounting graduates' prospective employers. Educators involved in accounting education are therefore required to balance the demands of higher education with those of the professional body, while still delivering to employers market-ready graduates fully equipped with the necessary competencies (Barac, 2013; IFAC, 2014a). Market-ready graduates (as represented in Figure 1.1) are thus expected to possess the necessary professional skills, (technical) knowledge, and attributes (values, ethics and attitudes) to be able to function to a defined standard in a professional working environment (IFAC, 2014b).

Figure 1.1: Market-ready graduates' characteristics



Source: Adapted from Fourie (2014); IFAC (2014b)

In order to achieve the delivery of market-ready graduates to a rapidly changing working environment, initiatives were launched across the world by academic

institutions (including those by South Africa's DHET) and professional bodies to equip students with the professional skills needed to augment their technical knowledge (Crawford, Helliard & Monk, 2011). In South Africa the DHET introduced critical cross field outcomes (which can also be referred to as professional skills), to be included in all registered qualifications (Killen, 2010; SAQA, 2000).

Professional accounting bodies worldwide have also introduced competency based professional requirements containing high-level descriptions of the competencies (which include technical knowledge as well as professional skills), an entry-level accounting professional should possess (Barac, 2009a; Barac, 2009b). The American Institute of Certified Public Accountants developed a competency framework in 1999; this was followed by the Chartered Accountants of Canada's competency map in 2002. The Institute of Chartered Accountants in Australia, the Institute of Chartered Accountants in New Zealand, and the Australian Society of Certified Public Accountants also developed competency frameworks in the same period (Barac, 2009b).

In South Africa the SAICA issued its first competency framework in 2008 (Barac, 2009b; Strauss-Keevy, 2014), which was based on the competency framework developed by the Canadian Institute of Chartered Accountants: the SAICA's framework was revised and updated in 2014 (SAICA, not dated). The SAICA's competency framework includes the competencies (the professional skills and technical knowledge) a South African Chartered Accountant (CA(SA)) should possess at their point of entry into the job market (SAICA, 2014).

1.2 PRELIMINARY LITERATURE REVIEW

The designation CA(SA) is thus a competency-based professional designation containing an academic component as well as a practical training component (generally known as articles/traineeship) performed at a registered training office (Steenkamp, 2012). The aim of the designation process is to meet the expectations of stakeholders such as accounting practitioners with regard to the professional skills and technical knowledge the trainee accountant should command at the end of their training period.

1.2.1 Expected professional skills

Accounting practitioners' expectations regarding the professional skills which accounting graduates should possess immediately after graduation and at the beginning of their traineeship, have been thoroughly investigated in many different countries (Bui & Porter (New Zealand), 2010; Crawford *et al.* (United Kingdom), 2011; Hancock, Howieson, Kavanagh, Kent, Tempone & Segal (Australia), 2009; Jackling & De Lange (Australia), 2009; Kavanagh & Drennan (Australia), 2008; Tempone, Kavanagh, Segal, Hancock, Howieson & Kent (Australia), 2012; Uyar & Gungormus (Turkey), 2011), and a consensus appears to have been reached on the professional skills that accounting practitioners expect their new employees to demonstrate (Jackling & Watty, 2010). Research has also been done to determine the ranking of these professional skills according to their importance within the accounting profession (Awayiga, Onumah & Tsamenyi, 2010; Barac, 2009a; Barac, 2009b), as well as the degree to which graduates should be exposed to (and be able to demonstrate competence in) these professional skills within the first six months of their training contracts (Barac, 2009a; Barac, 2009b).

1.2.2 Expected technical knowledge

Research on the technical knowledge expected from accounting graduates has not been left behind. The status of graduates' technical knowledge has been researched and investigated and reported on in a number of countries, with focuses on various subject areas and courses, including financial accounting and reporting, taxation and audit and assurance (Awayiga *et al.* (Ghana), 2010; Bui & Porter (New Zealand), 2010; Coetzee & Oberholzer (South Africa), 2009; Hancock *et al.* (Australia), 2009; Jackling & De Lange (Australia), 2009; Joubert, Coetzee & Oberholzer (South Africa), 2009; Kavanagh & Drennan (Australia), 2008; Uyar & Gungormus (Turkey), 2011; Van Romburgh & Van der Merwe (South Africa), 2015). It has been reported that in general practitioners expect graduates to have a basic technical knowledge (Hancock *et al.*, 2009), and that firm size has an effect on the technical knowledge expected from their recently graduated employees (Bui & Porter, 2010). The degree of exposure to technical knowledge that graduates should experience within the first six months of their training contracts, has also been investigated (Barac, 2009a; Barac, 2009c).

1.2.3 Expectation-performance gap

Building on the above-mentioned expectations regarding professional skills and technical knowledge that graduates should have, a study conducted in New Zealand (Bui & Porter, 2010) reported that a gap existed between accounting graduates' actual capabilities, when required to demonstrate professional skills and performing technical tasks, and the level of capability their employers expected from them when entering employment. The Bui and Porter (2010) study proposed a framework for the gap, referring to it as the expectation-performance gap. In addition research indicated that an expectation-performance gap existed with regard to graduates' actual professional skills capabilities at the beginning of their traineeships (Bui & Porter, 2010; Hancock *et al.*, 2009; Kavanagh & Drennan, 2008; Van Romburgh & Van der Merwe, 2015). Practitioners also indicated that graduates were not able to demonstrate the expected proficiency in practical accounting knowledge (Bui & Porter, 2010) and the ability to perform specific audit and assurance tasks was also lacking (Van Romburgh & Van der Merwe, 2015).

1.3 STATEMENT OF THE RESEARCH PROBLEM

The importance of professional skills and technical knowledge to the accounting profession, as well as the degree of exposure graduates are expected to have received at university level, are known, but the specific levels of capability and competence expected of graduates have not yet been quantitatively determined. As a result of this unknown level of capability the accounting profession expects of its newly graduated employees, the size of the expectation-performance gap is also unknown. Although earlier research has indicated that graduates' actual capabilities with regard to professional skills and technical knowledge did not meet the expectations of accounting practitioners at the beginning of their traineeships, the extent of the expectation-performance gap worldwide, and in South Africa in particular, has not previously been determined or quantified.

1.4 RESEARCH QUESTIONS

1.4.1 Primary research question

Trainee accountants, in their first year in practice, are primarily involved in performing technical tasks related to audit and assurance. Taking this into account, together with the accounting education environment and previous research, this dissertation (presented as research papers) has been guided by the following research question:

Do newly employed first year trainee accountants display the levels of professional skills and technical auditing and assurance knowledge expected of them by accounting practitioners (hereafter referred to as audit managers), and if they do not meet that expectation, what is the size of the expectation-performance gap?

1.4.2 Secondary research questions

In order to fully explore the research question above, the following two questions need to be addressed:

Question 1: What level of capability is expected by accounting practitioners from newly employed first year trainee accountants when required to demonstrate professional skills and perform technical auditing and assurance tasks?

Question 2: What is the actual level of capability, as perceived by accounting practitioners, shown by newly employed first year trainee accountants when demonstrating professional skills and performing technical auditing and assurance tasks?

1.5 RESEARCH OBJECTIVE

The objective of this dissertation is to determine the expectation-performance gap firstly, by quantifying the levels of professional skills and technical auditing and assurance knowledge capability audit managers expect of newly employed first year trainee accountants, and secondly by determining whether the professional skills and technical auditing and assurance knowledge actually displayed by the

newly employed first year trainee accountants, as perceived by audit managers, meet the expectations of the audit managers.

The first research paper (presented as chapter 2) focuses on the *professional skills* (including information technology (IT) skills), in order to quantify the level of capability audit managers expect of newly employed first year trainee accountants, and thereafter to determine whether the professional skills actually displayed by the newly employed first year trainee accountants meet the expectations of the audit managers, and if they do not meet that expectation, to determine the size of the expectation-performance gap.

The objectives of the second research paper (presented as chapter 3) are to quantify the level of capability audit managers expect of newly employed first year trainee accountants, and secondly to determine whether the knowledge actually displayed by the newly employed first year trainee accountants meet the expectations of the audit managers, and if they do not meet that expectation, to determine the size of the expectation-performance gap from a *technical auditing and assurance knowledge* perspective.

IT skills are a specific competency in the professional skills arena, and contain elements of underlying knowledge: thus, IT skills are applicable to almost any of the specific technical knowledge subjects (SAICA, 2014). It was therefore decided to investigate IT skills as one of the professional skills.

1.6 RESEARCH METHODOLOGY

In order to meet the objective of the dissertation (namely to determine the extent of the expectation-performance gap), a quantitative mode of inquiry has been employed in the dissertation (Di Fabio, Hartung, McIlveen, McMahan, Morgan, Panulla, Theron, Van der Walt & Watson, 2012).

A survey-based research design was followed as the research aimed to collect information from a number of individuals (audit managers) who were presumed to have the information (through their working with trainee accountants on a daily basis), and who were willing and able to share the information with the researcher

(Hofstee, 2006). As most graduate trainee accountants are employed by large audit firms (Van Romburgh & Van der Merwe, 2015) audit managers at the large audit firms, operating in Gauteng, were contacted and asked to participate in the survey.

1.6.1 Survey instrument

A questionnaire survey (which is regarded as a form of structured interview, where all respondents are asked the same questions and are offered the same options in answering it (Hofstee, 2006)), was used to determine the audit managers' expectations and experience of the actual levels of capability demonstrated by newly employed first year trainee accountants. The questionnaire used to examine the skills and knowledge of newly employed first year trainee accountants was derived from the SAICA's "*professional skills review document*" (PSR) and its "*technical skills review document*" (TSR), which are based on the SAICA's competency framework that was in turn based on the competency framework developed by the Canadian Institute of Chartered Accountants (SAICA, not dated). The PSR and TSR are used by training offices to evaluate and assess trainee accountants' professional and technical skills during their training contracts (SAICA, 2015a; SAICA, 2015b).

The PSR addresses 30 professional skills that should be competently demonstrated during trainee accountants' training contracts. After analysing the theory and discussing the realities with accounting practitioners responsible for trainee accountants' training at large firms, the list was reduced to 22 professional skills. The 22 professional skills examined in the questionnaire include those identified in previous studies dealing with the professional skills graduates are expected to possess immediately after graduation, and certainly within the first six months of their training contracts (Awayiga *et al.*, 2010; Barac, 2009a; Barac, 2009b; Bui & Porter, 2010; Crawford *et al.*, 2011; Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008; Low, Samkin & Liu, 2013; Tempone *et al.*, 2012; Uyar & Gungormus, 2011).

The TSR addresses 26 technical tasks which trainee accountants should be able to perform during the first year of their practical training contracts: 24 tasks relate

to audit and assurance. After having held discussions with accounting practitioners responsible for trainee accountant training at large firms, the 24 audit and assurance tasks were reduced to 12 tasks where competence was expected of trainee accountants specifically during the first three months of their training contracts. Tasks excluded from the questionnaire were tasks which, although expected from trainee accountants during the first year of their practical training contracts in terms of the TSR, were not generally expected of trainee accountants during the first three months of their training contracts. The tasks relate to areas such as the assessment of group-wide controls and the identification of a change to the audit plan. The 12 technical audit and assurance tasks addressed in the questionnaire relate to the understanding of business cycles and the performance of and conclusion on audit procedures, and to technical audit and assurance knowledge components such as audit planning, risk assessment and internal control, and audit procedures to gather audit evidence, which were identified in a previous study dealing with the technical knowledge graduates are expected to possess immediately after graduation and within the first six months of their training contracts (Barac, 2009a).

1.6.2 Data analysis

The quantitative data were captured into an electronic spreadsheet, where after it was analysed using Statistical Analysis Application Software (SPSS). Mean scores were calculated which enabled the expected and actual levels of competence to be identified, and in addition allowed the calculation of the expectation-performance gap relating to both the professional skills and the technical audit and assurance tasks. The numerical differences were converted to percentage differences, thus making the size of the expectation-performance gap more generally accessible.

A one sample t-test was conducted for each of the professional skills and technical audit and assurance tasks to determine if the differences in the means of the expected levels of capability and the actual levels of capability for each of the individual professional skills were statistically significant. (The one sample t-test compares the mean of a single column of numbers (the differences) against a

mean of zero, and was used to determine whether the differences were statistically significantly different from zero.)

The questionnaire included a concluding open-ended question at the end of each section, and these responses were analysed in an attempt to identify whether any clear themes would emerge.

1.7 SIGNIFICANCE OF THE RESEARCH

This dissertation extends current knowledge by determining accounting practitioners' expectations of the professional skills and technical auditing and assurance knowledge to be demonstrated by newly employed first year trainee accountants. Secondly, it sets a benchmark for the expectation-performance gap as perceived by audit managers with regard to the professional skills demonstrated and technical auditing and assurance tasks performed by newly employed first year trainee accountants.

The results could therefore assist the SAICA to assess the effectiveness of the implementation and enforcement of its competency framework at accredited universities, and to improve it as and when required. The findings are also relevant to accredited universities and academics, as it could assist them to improve the degree to which the professional skills and technical auditing and assurance knowledge are being included in their teaching programmes, as this research has determined the level of capability that is expected of their graduates. Lastly, the findings, because they determine the extent (quantum) of the expectation-performance gap, can assist training officers at audit firms and other approved training providers to develop and implement specific, effective and appropriate training opportunities for trainee accountants, to help bridge the expectation-performance gap.

1.8 CONCLUSION AND CHAPTER DIVISION

This dissertation firstly quantifies the level of professional skills (refer to chapter 2) and technical auditing and assurance knowledge capability (refer to chapter 3) that audit managers expect of newly employed first year trainee accountants, and

secondly determines whether the professional skills (in chapter 2) and technical auditing and assurance knowledge (in chapter 3) actually displayed by newly employed first year trainee accountants meet the expectations of the audit managers, and if they do not meet that expectation, determines the size of the expectation-performance gap.

Chapter 1 provided a preliminary literature review, stated the research problem, research questions and research objective, and outlined the research methodology (with its own reference list).

Chapter 2 (research paper 1) focuses on *professional skills* in order to quantify the level of capability audit managers expect of newly employed first year trainee accountants and to determine whether the professional skills actually displayed by the newly employed first year trainee accountants meet the expectations of the audit managers, and if they do not meet that expectation, to determine the size of the expectation-performance gap.

The objective of chapter 3 (research paper 2) is to quantify the level of capability audit managers expect of newly employed first year trainee accountants, and secondly to determine whether the knowledge actually displayed by the newly employed first year trainee accountants meets the expectations of the audit managers, and if they do not meet that expectations, to determine the size of the expectation-performance gap from a *technical auditing and assurance knowledge* perspective.

The dissertation is concluded in chapter 4 in which recommendations are made and areas of future research are identified and discussed.

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CHAPTER 2

PROFESSIONAL SKILLS LEVELS OF FIRST YEAR TRAINEE ACCOUNTANTS: WHAT EXACTLY DOES THE ACCOUNTING PROFESSION EXPECT?

ABSTRACT

As an unconscious reaction to changes within the working environment in which accounting professionals operate, accounting practitioners increasingly expect accounting graduates to possess not only the technical knowledge necessary to do their work, but also the broader range of professional skills that will help them to be successful in the working environment. This paper focuses on determining the professional skills expectations of employers, and the proficiency in these skills demonstrated by first year trainee accountants in the first three months of their training contracts (these trainees will be referred to as *newly employed first year trainee accountants* for the remainder of the research paper), within a South African context: it identifies and quantifies the issues of “what is expected”, “how much do they know” and “how big is the gap”.

A questionnaire survey was used to determine the perceptions and expectations of audit managers, and their assessments of the actual capabilities of newly employed first year trainee accountants with regard to professional skills. The findings indicated that audit managers expect the highest level of capability (capable with minimum/without supervision) to be achieved in the business ethics professional skills category, and that newly employed first year trainee accountants do not meet audit managers’ expectations: the audit managers’ expectations always exceeded newly employed first year trainee accountants’ performance. The professional skills category with the largest expectation-performance difference was the personal attributes category, with a 31.6% difference.

The findings reported in this paper could assist the South African Institute of Chartered Accountants (SAICA) to improve its competency framework and (re)assess the effectiveness of the implementation and evaluation of the development of professional skills at/by accredited universities. It could also be

utilised by accredited universities and academics to prompt reflection on ways to improve the manner in which professional skills are presented in their syllabi. Lastly, the findings could assist training officers at audit firms and other approved training providers to (re)develop and implement appropriate professional skills training opportunities for trainee accountants.

2.1 INTRODUCTION AND BACKGROUND

Accounting education has not met the expectations of accounting practitioners since the late 1800s (Jackling & Watty, 2010; Nelson, 1995), and accelerating changes within the working environment in which accounting professionals operate are fuelling ongoing reconsiderations of the competencies required to operate in this dynamic accounting environment (Barac, 2009a; Howieson, 2003; Jackling & De Lange, 2009). Possibly as an unconscious reaction to this accelerating rate of work-place change, accounting practitioners increasingly expect accounting graduates to possess not only the technical knowledge necessary to do their work, but also the broader range of professional skills that will help them to be successful in the working environment (Crawford, Helliard & Monk, 2011; Helliard, Monk & Stevenson, 2006; Kavanagh & Drennan, 2008).

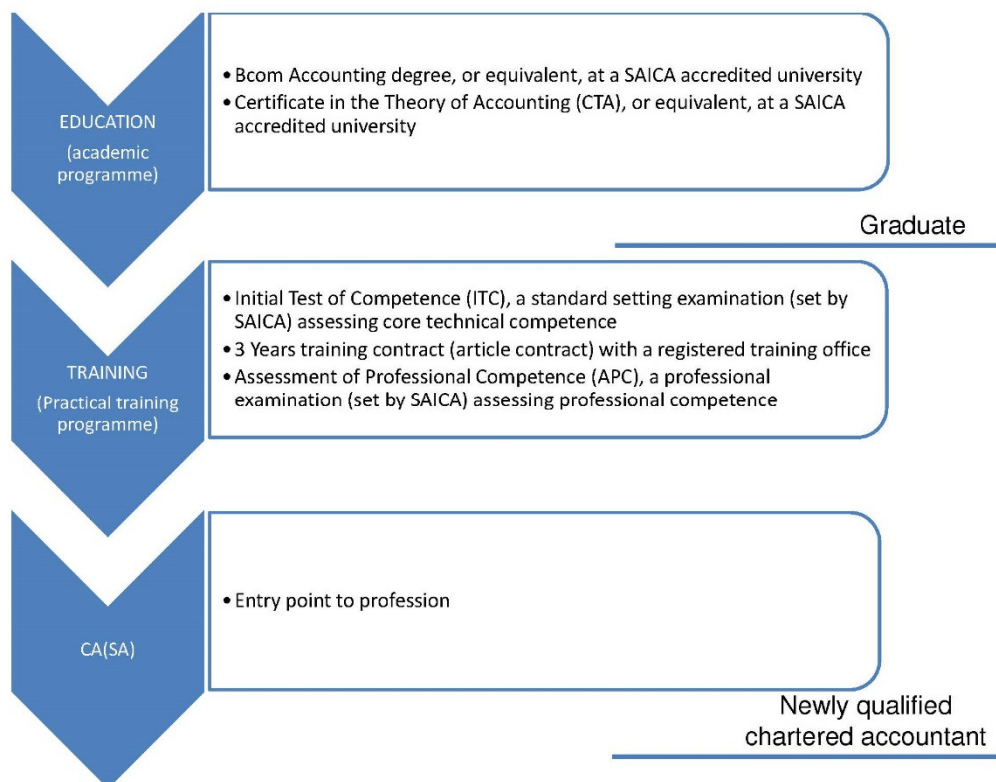
The focus of this paper is on newly employed first year trainee accountants' ability to demonstrate those broadly defined professional skills which include pervasive or soft skills such as business ethics, personal attributes, management and leadership skills, and the ability to use information technology (IT) effectively (SAICA, 2015; SAICA, 2014; Steenkamp, 2012). Although IT skills are considered to be more of a technical nature, as opposed to a soft skill nature, IT skills are generally included as part of professional skills as it can, and should, be incorporated with any of the different subject areas and is not considered to be a subject area on its own (SAICA, 2015).

According to a study conducted in New Zealand (Bui & Porter, 2010), there is a gap, when entering employment, between accounting graduates' actual capabilities to exercise professional skills and the level of capability their employers expect from them. Bui and Porter (2010) proposed a framework for the gap, referring to it as the expectation-performance gap. In addition the study tested the

proposed framework, in an accounting programme offered by a New Zealand university, and the findings provided support for the proposed framework (Bui & Porter, 2010).

In South Africa, the designation Chartered Accountant South Africa (CA(SA)) is a competency-based professional designation, and contains an academic component as well as a practical training component (generally known as articles/traineeship) performed at a registered training office (Steenkamp, 2012). These registered training offices can either be audit firms (which are categorised into small, medium and large firms) (Coetzee & Oberholzer, 2009; Van Romburgh & Van der Merwe, 2015), or commercially- or industry-focused companies which are registered as training offices (Barac, 2009b). The designation route of a CA(SA) is represented in Figure 2.1.

Figure 2.1: The designation route of a CA(SA)



Source: Adapted from Coetzee & Oberholzer (2009); SAICA, not dated a; SAICA, (2014).

This paper focuses on the expected and the perceived actual professional skills demonstrated by newly employed first year trainee accountants. This study has

been conducted within a South African context, and from the viewpoint of the audit managers in large audit firms based in Gauteng.

This seeming disconnect, between the skills demonstrated by graduates and the skills required by employers, has been recognised as a worldwide phenomenon. In order to equip students with not only the prescribed technical knowledge, but also the essential professional skills, initiatives have been launched (and are being implemented) by higher education institutions and professional accounting bodies across the world (Crawford *et al.*, 2011). In the higher education environment in South Africa *critical cross field outcomes* were introduced to all registered qualifications in 1995 (SAQA, not dated), and accounting bodies such as the SAICA and the South African Institute of Professional Accountants (SAIPA) shifted from a purely knowledge-based accreditation process to one based on the implementation of competency frameworks, which now include professional skills (Schutte, 2013; Steenkamp, 2012; Strauss-Keevy, 2014; Uyar & Gungomus, 2011).

Accounting practitioners' expectations regarding the professional skills which accounting graduates should possess immediately after graduation and at the beginning of their traineeship, have been investigated in many countries (Bui & Porter, 2010; Crawford *et al.*, 2011; Hancock, Howieson, Kavanagh, Kent, Tempone & Segal, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008; Tempone, Kavanagh, Segal, Hancock, Howieson & Kent, 2012; Uyar & Gungormus, 2011), and a consensus appears to have been reached on the professional skills that accounting practitioners expect their new recently graduated employees to demonstrate (Jackling & Watty, 2010). Research has also been done to determine the ranking of these professional skills according to their importance within the accounting profession (Awayiga, Onumah & Tsamenyi, 2010; Barac, 2009a; Barac, 2009b), as well as the degree to which graduates should be exposed to (and be able to demonstrate competence in) these professional skills within the first six months of their training contracts (Barac, 2009a; Barac, 2009b). The importance to the accounting profession of these professional skills, as well as the degree of exposure graduates are expected to have received at university level, are thus also known, but the specific levels of capability and competence expected

of graduates entering into their training contracts have not yet been quantitatively determined. The key question is thus, should graduates already be fully capable of demonstrating professional skills (with no guidance at all), or is there an expectation that they will still need guidance and/or supervision when first required to demonstrate these professional skills?

As the level (degree) of capability the accounting profession expects of its newly employed graduates is unknown, the size of the expectation-performance gap (as suggested by Bui & Porter (2010)), is also unknown. Although earlier research has indicated that graduates' actual capabilities with regard to professional skills did not meet the expectations of accounting practitioners at the beginning of their traineeship (Bui & Porter, 2010; Hancock *et al.*, 2009; Kavanagh & Drennan, 2008; Van Romburgh & Van der Merwe, 2015), the extent of the expectation-performance gap worldwide, and in South Africa, has not yet been determined or quantified.

The objectives of this paper are therefore twofold: firstly, to quantify the level of professional skills capability audit managers expect of newly employed first year trainee accountants (the "expectation"), and secondly to determine whether the professional skills actually displayed by newly employed first year trainee accountants meet the expectations of the audit managers (the "performance") and, if they do not meet the expectations, to determine the size of the expectation-performance gap.

This paper extends current knowledge by determining accounting practitioners' expectations of the professional skills to be demonstrated by newly employed first year trainee accountants. Secondly, it sets a benchmark for the expectation-performance gap as perceived by audit managers with regard to the professional skills demonstrated by newly employed first year trainee accountants.

2.2 LITERATURE REVIEW

2.2.1 Calls for reform in accounting education

There have been numerous calls for reform in accounting education; as far back as 1978, the American Institute of Chartered Accountants identified that insufficient

attention was being given to professional skills in accounting education (Crawford *et al.*, 2011). Subsequently, numerous international professional accounting bodies (*inter alia* from America, United Kingdom, and Australia) have conducted their own research and added their voices to the debate. Albrecht and Sack conducted a study, reported on in 2000 (Bui & Porter, 2010; De Lange, Marx & Van der Watt, 2013; Paisey & Paisey, 2007), in which the need for the development of professional skills was highlighted. The need for graduates to be in possession of specific professional knowledge and an increased emphasis on the need for professional skills, was further highlighted by various standard setting and accrediting bodies, including the Education Committee of the International Federation of Accountants (IFAC) in 2002, and the United Kingdom's Quality Assurance Agency for Higher Education in 2007 (Bui & Porter, 2010; IFAC, 2014a).

The emphasis being placed on professional skills continues to be driven by rising expectations amongst accounting practitioners and their clients as to what professional accountants do and how they should contribute to society (Howieson, 2003; IFAC, 2014b; Jackling & De Lange, 2009; Yu, Churuk & Chang, 2013). Professional practitioners no longer expect graduates to have only technical knowledge; they now also expect graduates to have a broad range of professional skills as well (Crawford *et al.*, 2011; Helliard *et al.*, 2006; Kavanagh & Drennan, 2008; Uyar & Gungormus, 2011).

In order to meet expectations it is crucial for universities to “equip students with more versatile skills to enable them to become premier business advisors as opposed to merely custodians of technical knowledge” (Byrne & Flood, 2003:210). As a result, initiatives were launched across the world by professional bodies and academic institutions (including those by South Africa's Department of Higher Education and Training (DHET) - previously known as the Department of Higher Education), to equip students with the professional skills needed to augment their technical knowledge (Crawford *et al.*, 2011).

2.2.2 Initiatives to address the calls for reform

Higher education institutions in South Africa have developed (and continue to develop) policies dealing with the development of professional skills (Barac & Du

Plessis, 2014), changing the content and presentation of their courses and including new courses intended to enhance the development of professional skills (Mason, Williams & Cranmer, 2009). New teaching methods and initiatives have also been introduced (Barac & Du Plessis, 2014; Mason *et al.*, 2009), and most are characterised by a notable shift away from the traditional concept of “teaching”, to embrace the concept of “facilitation of learning” (De Lange *et al.*, 2013). Professional bodies, including accounting bodies, have also shifted from a knowledge-based accreditation process to one requiring new members to demonstrate certain identified competencies before being registered as members of the professional bodies (Steenkamp, 2012; Strauss-Keevy, 2014).

The American Institute of Certified Public Accountants (AICPA) developed a competency framework in 1999; shortly thereafter (in 2002), the Canadian Institute of Chartered Accountants introduced a “competency map”. The Institute of Chartered Accountants in Australia, the Institute of Chartered Accountants in New Zealand, and the Australian Society of Certified Public Accountants also developed competency frameworks, all of which included knowledge areas as well professional skills (Barac, 2009b). These competency frameworks contain high-level descriptions of the competencies an entry-level accounting professional should possess, and now place much more emphasis on the professional skills component of the competencies (Barac, 2009a) than was evident in previous curricula and professional accreditation requirements. New members still have to have the necessary technical knowledge, but professional skills, such as problem-solving skills, an understanding of the role and effective use of IT, and communication and interpersonal skills, have increased in importance (Steenkamp, 2012; Uyar & Gungomus, 2011).

In South Africa at this time, the DHET introduced seven *critical cross field outcomes*, (which can also be referred to as professional skills), to be included in all registered qualifications (Killen, 2010; SAQA, 2000). These *critical cross field outcomes*, which have to be addressed within registered professional qualifications, entail demonstrating the following abilities (SAQA, 2000):

1. identify and solve problems in which it is demonstrated that responsible decisions using critical and creative thinking have been made;

2. work effectively with others as a member of a team, group, organisation, community;
3. organise and manage oneself and one's activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion;
6. use science and technology effectively and critically, showing responsibility towards the environment and health of others; and
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

The SAICA issued its first competency framework in 2008 (Barac, 2009b; Strauss-Keevy, 2014), which was based on the competency framework developed by the Canadian Institute of Chartered Accountants, and revised and updated it in 2014 (SAICA, not dated b). The SAICA's competency framework includes the competencies of a CA(SA) at point of entry into the profession, and include professional skills which are divided into three categories, namely ethical behaviour and professionalism, personal attributes, and professional skills (SAICA, 2014). The professional skills contained in the competency framework include the *critical cross field outcomes* required by the DHET, as well as additional professional skills relating to ethical behaviour, time management, and management and supervision, amongst others.

2.2.3 Previous research

Recently there has been a spate of studies conducted in different countries, attempting to identify the professional skills considered most important by accounting practitioners, and to formalise which professional skills should be incorporated into university programmes. These researchers have identified a wide range of professional skills. Studies conducted in Australia on the professional skills accounting practitioners require newly graduated employees to possess were in the broadly defined areas of communication (Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008; Tempone *et al.*, 2012), teamwork (Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008;

Tempone *et al.*, 2012), interpersonal skills (Hancock *et al.*, 2009), self-management (Hancock *et al.*, 2009; Jackling & De Lange, 2009; Tempone *et al.*, 2012), initiative - the ability to work on one's own (Hancock *et al.*, 2009; Tempone *et al.*, 2012), problem solving (Hancock *et al.*, 2009; Tempone *et al.*, 2012), client relationships (Hancock *et al.*, 2009), planning (Hancock *et al.*, 2009; Tempone *et al.*, 2012) and ethics (Kavanagh & Drennan, 2008).

This expectation, that graduates are competent in communication and teamwork, was echoed by accounting practitioners in various studies conducted in New Zealand (Bui & Porter, 2010; Low, Samkin & Liu, 2013). In addition, these New Zealand studies identified the importance of IT skills (Bui & Porter, 2010) and analytical skills (Low *et al.*, 2013), and the Big 4 audit firms added research skills to the list (Bui & Porter, 2010). In a study conducted in Scotland, England and Wales it was reported that the most important professional skills that should be taught at university, and which graduates were expected to demonstrate, were analytical skills, presentation skills and written communication skills (Crawford *et al.*, 2011). Adding a further dimension to the situation, a study conducted in Turkey indicated that firm size had a significant impact on the specific mix of professional skills accounting practitioners expected from their recently graduated employees (Uyar & Gungormus, 2011). According to Uyar and Gungormus (2011), the Big 4 audit firms perceived interpersonal communication skills and teamwork to be significantly more important than did smaller firms. Research done in Ghana took the investigation one step further, ranking the professional skills, and reporting that analytical/critical thinking was the most important skill, followed by IT, professional behaviour and communication (Awayiga *et al.*, 2010). In addition, this research also ranked the specific IT skills accounting practitioners required of their recently graduated employees (Awayiga *et al.*, 2010).

In South Africa, Barac (2009a; 2009b) investigated the specific professional skills required from graduates within the first six months of their training contracts within the broad areas of communication, analytical, interpersonal and IT skills. According to this study, none of these professional skills was identified as 'extremely important'. However, expectations regarding accounting graduates' IT capabilities (within the first six months of their training contracts) ranged from 'extensive' with

respect to spreadsheet software, to 'above average' for standard internet software, accounting software, word processing software and audit working paper related software (Barac, 2009b). Some of the professional skills that were regarded as 'very important' correlate with the findings of studies conducted elsewhere in the world, and include communication skills, time management and teamwork (Barac, 2009b).

It has been reported that many of the professional skills accounting practitioners expect graduates to demonstrate are not developed sufficiently in university accounting programmes (Bui & Porter, 2010; Hancock *et al.*, 2009; Kavanagh & Drennan, 2008; Tempone *et al.*, 2012; Van Romburgh & Van der Merwe, 2015). This manifests as an expectation-performance gap: the professional skills accounting practitioners expect graduates to possess on arrival, and the actual professional skills they see recently qualified graduates demonstrating are significantly different (Bui & Porter, 2010).

According to accounting practitioners worldwide the professional skills graduates most significantly lack are effective communication skills (Awayiga *et al.*, 2010; Hancock *et al.*, 2009). Writing skills are also generally "poor": in particular, graduates lack the ability to write well-structured and concise business reports, or appropriately expressed letters or e-mails to clients (Bui & Porter, 2010). Problem-solving skills (Awayiga *et al.*, 2010; Hancock *et al.*, 2009) have also been found to be "underdeveloped" and, according to Bui and Porter (2010), graduates' knowledge of business is lower than expected. In general, recent graduates are seen as being unprepared for the work environment and rarely have much business awareness or real life experience (Bui & Porter, 2010; Kavanagh & Drennan, 2008).

In South Africa, a pilot study was conducted to identify skills deficiencies in graduates entering into their training contracts; respondents found that generally graduates were not adequately equipped with the necessary professional skills (Van Romburgh & Van der Merwe, 2015). The professional skills which graduates were most often deficient in were communication (specifically writing skills), IT literacy, problem solving, critical thinking, and time management (Van Romburgh & Van der Merwe, 2015).

From the above review of recent research it is clear that the accounting practitioners' expectations regarding the professional skills that recent graduates should possess have been widely investigated, and that the list of expected professional skills is now fairly well defined (Awayiga *et al.*, 2010; Barac, 2009a; Barac, 2009b; Bui & Porter, 2010; Crawford *et al.*, 2011; Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008; Low *et al.*, 2013; Tempone *et al.*, 2012; Uyar & Gungormus, 2011). The studies conducted by Barac (2009a, 2009b) focused on the professional skills graduates are expected to demonstrate during the first six months of their training contracts, the importance of these skills, and especially the expected level of previous exposure with regard to their IT capabilities (Barac, 2009b). This study takes that research one step further by investigating the level of ability to demonstrate professional skills accounting practitioners expect of newly employed first year trainee accountants.

It is also clear that there is a gap between what accounting practitioners expect from recent graduates regarding their proficiency in professional skills, and the professional skills these graduates actually demonstrate (Awayiga *et al.*, 2010; Bui & Porter, 2010; Hancock *et al.*, 2009; Kavanagh & Drennan, 2008; Tempone *et al.*, 2012; Van Romburgh & Van der Merwe, 2015). This study adds to previous research by not only confirming the continuing presence of an expectation-performance gap, but in addition, by quantifying this expectation-performance gap.

2.3 METHODOLOGY

This study focuses on the professional skills audit managers expect newly employed first year trainee accountants to possess, and compares these expectations with the professional skills actually displayed by these newly employed first year trainee accountants, as perceived by the audit managers, in order to determine whether such an expectation-performance gap exists, and if so, its extent. The study is thus designed to answer the following two research questions:

Research question 1: What level of capability is expected by accounting practitioners from newly employed first year trainee accountants when required to demonstrate professional skills?

Research question 2: Do newly employed first year trainee accountants display the levels of professional skills expected of them by their accounting practitioners (employers), and if they do not meet that expectations, what is the size of the expectation-performance gap?

As the objective of the paper are to determine the level of capability expected by audit managers and whether the capabilities displayed by newly employed first year trainee accountants meet the expectations of audit managers and, if not met, the extent of the gap the study is approached from a quantitative mode of inquiry (Di Fabio, Hartung, McIlveen, McMahon, Morgan, Panulla, Theron, Van der Walt & Watson, 2012).

A survey-based research design was followed as the paper aim to collect information from a number of individuals (audit managers) who are presumed to have the information (working with trainee accountants on a daily basis), and who were willing and able to share the information with the researcher (Hofstee, 2006). A questionnaire survey was used to determine audit managers' expectations and perceptions of the actual capabilities of newly employed first year trainee accountants with regard to professional skills.

The questionnaire used in this study examined 22 key professional skills, identified in the SAICA's "*professional skills review document*" (PSR). The PSR is based on the SAICA's competency framework that was in turn based on the competency framework developed by the Canadian Institute of Chartered Accountants (SAICA, not dated b). The PSR is used by training offices to evaluate and assess trainee accountants' professional skills during their training contracts (SAICA, 2015). The PSR addresses 30 professional skills that should be competently demonstrated during trainee accountants' training contracts. After analysing the theory and discussing the realities with accounting practitioners responsible for trainee accountants' training at large firms, the list was reduced to 22 professional skills. The 22 professional skills addressed in the questionnaire include skills identified in previous studies dealing with the professional skills graduates are expected to possess immediately after graduation, and certainly within the first six months of their training contracts (Awayiga *et al.*, 2010; Barac, 2009a; Barac, 2009b; Bui & Porter, 2010; Crawford *et al.*, 2011; Hancock *et al.*, 2009; Jackling & De Lange,

2009; Kavanagh & Drennan, 2008; Low *et al.*, 2013; Tempone *et al.*, 2012; Uyar & Gungormus, 2011). The 22 individual professional skills examined in the questionnaire were grouped according to the four categories used in the PSR, namely business ethics; personal attributes; management and leadership, and IT (SAICA, 2015).

The first professional skills category, *business ethics* includes individual professional skills and qualities such as the ability to display honesty and integrity; to maintain objectivity and independence; to adhere to the rules of professional conduct (including the SAICA Code of Professional Conduct); to apply ethical principles to business activities; to protect the confidentiality of information; to avoid conflict of interest; to maintain and enhance the profession's reputation, and to carry out work with due care.

The *personal attributes* professional skills category includes the following individual professional skills: the ability to take responsibility for one's own development; to communicate effectively in verbal and written format; to ask appropriate and probing questions to obtain the required information, and to respond and adapt to change.

The individual professional skills included in the *management and leadership* professional skills category are: the ability to work effectively with colleagues and clients from diverse backgrounds and cultures; the ability to collaborate with colleagues and work effectively as a team member; the ability to respect deadlines, manage time and organise tasks logically; the ability to keep abreast of global and local economic events through reading and interpreting the financial and business press; the application of project management principles such as meeting deadlines, and the ability to resolve conflict and negotiate appropriate solutions.

The *IT* professional skills category deals with individual professional skills such as the application of procedures and controls to ensure integrity and security of personal IT resources (e.g., password protection, backup procedures, antivirus measures, etc.); the effective use of the internet as a source of information, and the effective use of IT applications including spreadsheets, word processing, presentations and e-mail.

Part 1 of the questionnaire dealt with the respondents' expectations of newly employed first year trainee accountants' with respect to their abilities to demonstrate professional skills. Part 2 addressed respondents' views on the actual capabilities of newly employed first year trainee accountants with respect to their abilities to demonstrate professional skills. The Likert-scale response options to the questions dealing with the respondents' perceptions of the capabilities of newly employed first year trainee accountants to demonstrate the listed professional skills offered a choice of four capability assessments: 1 represented "not capable"; 2 represented "capable with frequent supervision/intervention"; 3 represented "capable with limited/periodic supervision/intervention", and 4 represented "capable without supervision/intervention". This is also the rating scale used by training offices when assessing trainee accountants' competencies during their training contracts (SAICA, 2012b).

Part 1 also contained an open-ended question that allowed respondents to add any additional individual professional skills they expected newly employed first year trainee accountants to be able to demonstrate. The open-ended question in Part 2 asked the audit managers to describe any additional individual professional skills they felt that trainee accountants should have been taught while at university, or that they felt the first year trainee accountants needed, but did not yet possess.

As most graduate trainee accountants are employed by large audit firms (Van Romburgh & Van der Merwe, 2015) and a limitation of this particular study was that the large audit firms did not participate to the extent expected by the researchers (Van Romburgh & Van der Merwe, 2015) the questionnaires were distributed to 103 audit managers, working with trainee accountants on a regular basis, at four of the large audit firms operating in Gauteng by their respective training officers.

Thirty-eight completed questionnaires were received, and the quantitative data were captured into an electronic spreadsheet, where after it was analysed using statistical analysis application software (SPSS). Mean scores were calculated for the expected and the actual levels of capability for each of the four professional skills categories, as well as for each of the individual professional skills. This enabled the expected and actual levels of competence to be identified, and thus the calculation of the expectation-performance gap for each of the four professional

skills categories, as well as for the 22 individual professional skills. The numerical differences were converted to percentage differences, thus making the size of the expectation-performance gap more generally accessible.

A one sample t-test was conducted for each of the individual professional skills to determine if the differences in the means of the expected levels of capability and the actual levels of capability for each of the individual professional skills were statistically significant. The one sample t-test compares the mean of a single column of numbers (the differences) against a mean of zero, and was used to determine whether the differences were statistically significantly different from zero.

The open-ended questions' responses were analysed in an attempt to identify whether any clear themes would emerge. No additional professional skills categories or individual professional skills emerged from this analysis.

2.4 FINDINGS

The first objective of the study was to quantify the audit managers' expectations with respect to the abilities of newly employed first year trainee accountants to demonstrate professional skills. These are presented below.

2.4.1 Expected capabilities of newly employed first year trainee accountants

In order to determine the audit managers' expectations of the abilities of newly employed first year trainee accountants to demonstrate each of the professional skills, a mean score was calculated for each of the four professional skills categories as well as for the 22 individual professional skills. The respondents' expectations of the capability of newly employed first year trainee accountants with respect to demonstrating the four professional skills categories during the first three months of their training contracts are presented in Table 2.1 below, in which SD = standard deviation, and M = mean value. (The details of the expected capabilities for each of the individual professional skills are presented in Annexure A.)

Table 2.1: Audit managers’ expectations of newly employed first year trainee accountants, with respect to the professional skills categories

	SD	M
BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct (MS)	0.62	3.65
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value (LS)	0.74	2.88
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead (LS)	0.86	2.82
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively (LS)	0.81	3.03

Mean interpretation: MS = Capable with *minimum/without supervision* (mean ≥ 3.5), LS = Capable with *limited supervision* (mean ≥ 2.5 but < 3.5), FS = Capable with *frequent supervision* (mean ≥ 1.5 but < 2.5), NC = **Not capable** (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g., a mean of 3.5, if rounded to the nearest 1 would be rounded to 4 whilst a mean of 3.4 would be rounded to 3.

Based on the calculated mean scores it is evident that audit managers expect the highest level of capability in the business ethics professional skills category. In addition, audit managers expect newly employed first year trainee accountants to be able to demonstrate seven of the eight individual professional skills included in the business ethics professional skills category (refer to Annexure A), with a minimum of or without supervision. The exception is the ability to “carry out work with due care”, where audit managers have a lower expectation. They expect newly employed first year trainee accountants to demonstrate this individual professional skill “with limited supervision”, as indicated by the shaded individual professional skill in Annexure A.

The mean scores for the professional skills categories further indicated that audit managers expect that newly employed first year trainee accountants should be able to demonstrate competence in the three other professional skills categories “with limited supervision”. The only individual professional skill for which audit managers expect to provide frequent supervision to newly employed first year trainee accountants was the ability to “resolve conflict and negotiate appropriate solutions” in the management and leadership professional skills category, as indicated by the shaded individual professional skill in Annexure A.

The second objective of the study was to determine whether the professional skills displayed by the newly employed first year trainee accountants meet the expectations of the audit managers, and if not, to determine the size of the expectation-performance gap. The first step in achieving this objective was to determine (and quantify) the respondents' perceptions of the actual capabilities of newly employed first year trainee accountants.

2.4.2 Actual capabilities of newly employed first year trainee accountants

In order to determine the perceptions regarding the actual capabilities of newly employed first year trainee accountants with respect to each of the professional skills, a mean score was calculated for each of the four professional skills categories as well as for each of the individual professional skills. The respondents' perceptions of the actual capabilities of newly employed first year trainee accountants with respect to the four professional skills categories are presented in Table 2.2 below, in which SD = standard deviation and M = mean value. The details of the actual capabilities for each of the individual professional skills are presented in Annexure B.

Table 2.2: Audit managers' perceptions of actual skills displayed by newly employed first year trainee accountants with respect to the professional skills categories

	SD	M
BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct (LS)	0.84	3.02
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value (FS)	0.69	1.97
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead (FS)	0.81	2.13
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively (FS)	0.76	2.26

Mean interpretation: MS = Capable with minimum/without supervision (mean ≥ 3.5), LS = Capable with limited supervision (mean ≥ 2.5 but < 3.5), FS = Capable with frequent supervision (mean ≥ 1.5 but < 2.5), NC = Not capable (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g., a mean of 3.5, if rounded to the nearest 1 it will be rounded to 4 whilst a mean of 3.4 will be rounded to 3.

2.4.3 Expectation-performance gap for newly employed first year trainee accountants

In order to meet the second objective of the study (namely to determine whether the professional skills displayed by newly employed first year trainee accountants met the expectations of the audit managers), mean scores of the expected capabilities were compared to the mean scores of the perceived actual capabilities for each of the four professional skills categories, as well as for the individual professional skills. This enabled the determination of whether an expectation-performance gap existed. The differences between the mean scores of the expected capabilities and of the perceived actual capabilities were converted to percentage differences, thus making the size of the expectation-performance gap more readily accessible. The results for the professional skills categories are presented in Table 2.3 below, in which M = mean value, and the details of the expectation-performance gap for the individual professional skills are contained in Annexure C.

Table 2.3: Expectation-performance gap for newly employed first year trainee accountants, with respect to the professional skills categories

	Expected M	Actual M	% Difference
BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct	3.65	3.02	17.3%
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value	2.88	1.97	31.6%
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead	2.82	2.13	24.5%
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively	3.03	2.26	25.4%

It is evident from Table 2.3 that newly employed first year trainee accountants do not meet audit managers' expectations as the differences were all positive: expectations always exceeded performance. The professional skills category with the largest expectation-performance difference was the personal attributes category: audit managers indicated that the newly employed first year trainee

accountants were 31.6% less able to demonstrate these skills than the audit managers had expected; this was followed by the IT professional skills category where the difference was 25.4%.

The seven individual professional skills showing the largest expectation-performance gap (as indicated by the seven shaded individual professional skills in Annexure C), were the ability to take responsibility for own development (37.9%), effective written communication (36.3%), keeping abreast of global and local economic events through reading and interpreting the financial and business press (34.1%), asking appropriate and probing questions to obtain required information (32.8%), respecting deadlines, managing time and organising tasks logically (31.9%), effectively uses IT applications including spreadsheets, word processing, presentations and e-mail (31%), and effective verbal communication (30.6%).

The three individual professional skills showing the smallest expectation-performance gaps (see Annexure C), were the ability to to display honesty and integrity (9.4%), the ability to maintain objectivity and independence (13.3%) and the ability to avoid conflict of interest (15.2%),.

2.4.4 Statistical significance of the differences

In order to determine if the differences between the means of the expected levels of capability and the perceived actual levels of capability were statistically significant, each individual professional skill was tested separately. The results of the one sample t-tests for these individual professional skills are presented in Annexure D.

The differences in the means of the expected levels of capability and the actual levels of capability for each of the individual professional skills was considered to be statistically significant if $p < 0.05$. The results indicate that the differences for all 22 individual professional skills are statistically significant. The results also indicate that in all instances the expected levels of capability are higher than the actual levels of capability: the mean differences are all positive, and range between 0.37 and 1.16.

2.4.5 Additional skills expected by audit managers

Themes emerging from responses to the open-ended questions indicated that audit managers felt that newly employed first year trainee accountants needed more exposure to practical professional skills whilst at university. This could be achieved by incorporating spreadsheet software (such as Excel™) into undergraduate projects and assignments, and by setting group assignments, thereby providing them with more opportunities to improve their communication, teamwork and time management skills. This need to include enhanced practical applications of professional skills while still at university is the essence of the responses to both the open-ended questions in the questionnaire. Audit managers expect newly employed first year trainee accountants to have well-developed skills in the use of spreadsheets and word processing software (such as Excel™, advanced Excel™ and MSWord™), and significantly better developed verbal and written communication skills than they were currently able to demonstrate. The fact that these aspects had already been addressed in the questionnaire adds to the importance that the possession of these professional skills by recent graduates has from the point of view of audit managers.

2.5 SUMMARY AND CONCLUSION

The overall objective of accounting education is to develop competent professional accountants who will be able to function to a defined standard in an ever-changing working environment. Over the last number of years, there has been an increasing emphasis within accounting education on efforts to develop the professional skills of trainee accountants, before they formally enter the profession. This research builds on previous studies, which investigated and reported on the most important professional skills required, as well as identifying the professional skills most lacking, by attempting to quantify the extent of the shortfalls.

The first objective of this study was to quantify the audit managers' expectations with respect to the levels of professional skills they expected newly employed first year trainee accountants to be able to demonstrate. The findings of the study indicated that audit managers have different expectations for each of the professional skills categories, and for the various individual skills within each

category. Audit managers expect newly employed first year trainee accountants to demonstrate the highest level of capability in the business ethics professional skills category, and furthermore, expect newly employed first year trainee accountants to be capable of demonstrating seven of the 22 individual professional skills with minimal or without supervision. In addition, they expect these trainee accountants to demonstrate 14 of the individual professional skills with “limited supervision”, and recognise that only one skill should require “frequent supervision”. This individual professional skill for which audit managers expect to provide “frequent supervision” to newly employed first year trainee accountants was the capability to “resolve conflict and negotiate appropriate solutions” within the management and leadership professional skills category.

The second objective of the study was to determine quantitatively the degree to which the professional skills displayed by newly employed first year trainee accountants met the expectations of their audit managers. This enabled the size of the expectation-performance gap to be calculated by comparing the audit managers’ (quantified) expectations with their (similarly quantified) perceptions of newly employed first year trainee accountants’ actual abilities to demonstrate professional skills. The results showed clearly that audit managers’ expectations are not being met as there were material expectation-performance gaps for all of the 22 individual professional skills being investigated.

The sizes of the expectation-performance gaps were also calculated and revealed that expectations exceeded performance in all instances. The professional skills category with the largest expectation-performance gap was the personal attributes professional skills category. In this category audit managers indicated that newly employed first year trainee accountants demonstrated an actual ability that was 31.6% less than their expectations. In the IT professional skills category there was an expectation-performance difference of 25.4%. The three individual professional skills showing the largest expectation-performance gaps were newly employed first year trainee accountants’ ability to take responsibility for own development (37.9% gap), ability to deliver effective written communication (36.3% gap), and the ability to keep abreast of global and local economic events through reading and interpreting the financial and business press (34.1% gap). At the other end of the

spectrum, the three individual professional skills showing the smallest expectation-performance gaps were the newly employed first year trainee accountants' ability to display honesty and integrity (9.4% gap), their ability to maintain objectivity and independence (13.3% gap) and their ability to avoid conflict of interest (15.2% gap).

The study focused on the viewpoints of audit managers, within the South African context, at large audit firms working in Gauteng. The findings reported in this paper could therefore assist the SAICA to improve the competency framework and (re)assess the effectiveness of the implementation and evaluation of the development of professional skills at/by accredited universities. It could also be utilised by accredited universities and academics to prompt reflection on ways to improve the manner in which professional skills are presented in their syllabi. Lastly, the findings could assist training officers at audit firms and other approved training providers to (re)develop and implement appropriate professional skills training opportunities for trainee accountants.

ANNEXURE A

Table 2.4: Audit managers' expectations of individual professional skills levels in newly employed first year trainee accountants

BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct		
	SD	M
Displays honesty and integrity. (MS)	0.39	3.82
Maintains objectivity and independence. (MS)	0.53	3.76
Adheres to the rules of professional conduct, including the SAICA Code of Professional Conduct. (MS)	0.56	3.71
Applies ethical principles to business activities. (MS)	0.56	3.70
Protects the confidentiality of information. (MS)	0.65	3.68
Avoids conflict of interest. (MS)	0.67	3.63
Maintains and enhances the profession's reputation. (MS)	0.68	3.55
Carries out work with due care. (LS) - <i>Only individual skill in this category with a lower expectation MS vs LS</i>	0.70	3.34
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value		
Takes responsibility for own development. (LS)	0.83	3.27
Communicates effectively in verbal format. (LS)	0.60	3.11
Communicates effectively in written format. (LS)	0.68	2.89
Asks appropriate and probing questions to obtain required information. (LS)	0.75	2.59
Responds and adapts to change. (LS)	0.55	2.55
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead		
Works effectively with colleagues and clients from diverse backgrounds and cultures. (LS)	0.71	3.39
Collaborates with colleagues and works effectively as a team member. (LS)	0.87	3.03
Respects deadlines, manages time and organizes tasks logically. (LS)	0.85	2.82
Keeps abreast of global and local economic events through reading and interpreting the financial and business press. (LS)	0.80	2.79
Applies project management principles such as meeting deadlines, etc. (LS)	0.75	2.62
Resolves conflict and negotiates appropriate solutions. (FS) - <i>Only individual professional skill for which audit managers expect to provide frequent supervision</i>	0.68	2.25
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively		
Applies procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc. (LS)	0.73	3.21
Effectively uses the internet as a source of information. (LS)	0.69	3.13
Effectively uses IT applications including spreadsheets, word processing, presentations and e-mail. (LS)	0.91	2.74

Mean interpretation: MS = Capable with minimum/without supervision (mean ≥ 3.5), LS = Capable with limited supervision (mean ≥ 2.5 but < 3.5), FS = Capable with frequent supervision (mean ≥ 1.5 but < 2.5), NC = Not capable (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g., a mean of 3.5, if rounded to the nearest 1 it will be rounded to 4 whilst a mean of 3.4 will be rounded to 3.

ANNEXURE B

Table 2.5: Audit managers' perceptions of the actual capabilities of newly employed first year trainee accountants when demonstrating individual professional skills

BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct		
	SD	M
Displays honesty and integrity. (LS)	0.68	3.46
Maintains objectivity and independence. (LS)	0.75	3.26
Adheres to the rules of professional conduct, including the SAICA Code of Professional Conduct. (LS)	0.77	3.08
Avoids conflict of interest. (LS)	0.93	3.08
Applies ethical principles to business activities. (LS)	0.75	3.03
Protects the confidentiality of information. (LS)	0.81	3.03
Maintains and enhances the profession's reputation. (LS)	0.73	2.79
Carries out work with due care. (FS)	0.82	2.42
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value		
Communicates effectively in verbal format. (FS)	0.71	2.16
Responds and adapts to change. (FS)	0.74	2.08
Takes responsibility for own development. (FS)	0.63	2.03
Communicates effectively in written format. (FS)	0.59	1.84
Asks appropriate and probing questions to obtain required information. (FS)	0.68	1.74
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead		
Works effectively with colleagues and clients from diverse backgrounds and cultures. (LS)	0.76	2.82
Collaborates with colleagues and works effectively as a team member. (LS)	0.82	2.50
Applies project management principles such as meeting deadlines, etc. (FS)	0.56	1.95
Respects deadlines, manages time and organizes tasks logically. (FS)	0.62	1.92
Keeps abreast of global and local economic events through reading and interpreting the financial and business press. (FS)	0.71	1.84
Resolves conflict and negotiates appropriate solutions. (FS)	0.74	1.76
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively		
Applies procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc. (LS)	0.84	2.68
Effectively uses the internet as a source of information. (FS)	0.53	2.22
Effectively uses IT applications including spreadsheets, word processing, presentations and e-mail. (FS)	0.65	1.89

Mean interpretation: MS = Capable with minimum/without supervision (mean ≥ 3.5), LS = Capable with limited supervision (mean ≥ 2.5 but < 3.5), FS = Capable with frequent supervision (mean ≥ 1.5 but < 2.5), NC = Not capable (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g., a mean of 3.5, if rounded to the nearest 1 it will be rounded to 4 whilst a mean of 3.4 will be rounded to 3.

ANNEXURE C

Table 2.6: Expectation-performance gap for newly employed first year trainee accountants in demonstrating individual professional skills

BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct			
	Expected M	Actual M	% Difference
Displays honesty and integrity. (MS vs LS)	3.82	3.46	9.4%
Maintains objectivity and independence. (MS vs LS)	3.76	3.26	13.3%
Adheres to the rules of professional conduct, including the SAICA Code of Professional Conduct. (MS vs LS)	3.71	3.08	17%
Applies ethical principles to business activities. (MS vs LS)	3.70	3.03	18.1%
Protects the confidentiality of information. (MS vs LS)	3.68	3.03	17.7%
Avoids conflict of interest. (MS vs LS)	3.63	3.08	15.2%
Maintains and enhances the profession's reputation. (MS vs LS)	3.55	2.79	21.4%
Carries out work with due care. (LS vs LS)	3.34	2.42	27.5%
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value			
Takes responsibility for own development. (LS vs FS)	3.27	2.03	37.9%
Communicates effectively in verbal format. (LS vs FS)	3.11	2.16	30.6%
Communicates effectively in written format. (LS vs FS)	2.89	1.84	36.3%
Asks appropriate and probing questions to obtain required information. (LS vs FS)	2.59	1.74	32.8%
Responds and adapts to change. (LS vs FS)	2.55	2.08	18.4%
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead			
Works effectively with colleagues and clients from diverse backgrounds and cultures. (LS vs LS)	3.39	2.82	16.8%
Collaborates with colleagues and works effectively as a team member. (LS vs LS)	3.03	2.50	17.5%
Respects deadlines, manages time and organizes tasks logically. (LS vs FS)	2.82	1.92	31.9%
Keeps abreast of global and local economic events through reading and interpreting the financial and business press. (LS vs FS)	2.79	1.84	34.1%
Applies project management principles such as meeting deadlines, etc. (LS vs FS)	2.62	1.95	25.6%
Resolves conflict and negotiates appropriate solutions. (FS vs FS)	2.25	1.76	21.8%
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively			
Applies procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc. (LS vs LS)	3.21	2.68	16.5%
Effectively uses the internet as a source of information. (LS vs FS)	3.13	2.22	29.1%
Effectively uses IT applications including spreadsheets, word processing, presentations and e-mail. (FS vs LS)	2.74	1.89	31.0%

Mean interpretation: MS = Capable with minimum/without supervision (mean ≥ 3.5), LS = Capable with limited supervision (mean ≥ 2.5 but < 3.5), FS = Capable with frequent supervision (mean ≥ 1.5 but < 2.5), NC = Not capable (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g., a mean of 3.5, if rounded to the nearest 1 it will be rounded to 4 whilst a mean of 3.4 will be rounded to 3.

ANNEXURE D

Table 2.7: Statistical significance of the expected and actual means per individual professional skill

BUSINESS ETHICS: Acts ethically and in accordance with rules of professional conduct		
	M Diff	Sig. (2-tailed)
Displays honesty and integrity.	0.45	p=0.003
Carries out work with due care.	0.92	p=0.000
Maintains objectivity and independence.	0.50	p=0.000
Avoids conflict of interest.	0.55	p=0.001
Protects the confidentiality of information.	0.66	p=0.000
Maintains and enhances the profession's reputation.	0.76	p=0.000
Adheres to the rules of professional conduct, including the SAICA Code of Professional Conduct.	0.63	p=0.000
Applies ethical principles to business activities.	0.66	p=0.000
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value		
Responds and adapts to change.	0.47	p=0.000
Asks appropriate and probing questions to obtain required information.	0.79	p=0.000
Communicates effectively in written format.	1.05	p=0.000
Communicates effectively in verbal format.	0.95	p=0.000
Takes responsibility for own development.	1.16	p=0.000
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead		
Keeps abreast of global and local economic events through reading and interpreting the financial and business press.	0.95	p=0.000
Applies project management principles such as meeting deadlines, etc.	0.61	p=0.000
Respects deadlines, manages time and organizes tasks logically.	0.89	p=0.000
Works effectively with colleagues and clients from diverse backgrounds and cultures.	0.58	p=0.001
Collaborates with colleagues and works effectively as a team member.	0.53	p=0.005
Resolves conflict and negotiates appropriate solutions.	0.37	p=0.017
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively		
Effectively uses IT applications including spreadsheets, word processing, presentations and e-mail.	0.89	p=0.000
Effectively uses the internet as a source of information.	0.97	p=0.000
Applies procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc.	0.61	p=0.000

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CHAPTER 3

ACCOUNTING PRACTITIONERS' PERSPECTIVES OF THE AUDIT CAPABILITIES EXPECTED OF AND DEMONSTRATED BY FIRST YEAR TRAINEE ACCOUNTANTS

ABSTRACT

During the last few decades professional accounting bodies worldwide have introduced competency frameworks which include technical knowledge as well as the professional skills that entry-level accounting professionals should possess when entering the profession. Despite the accounting profession having shifted from a knowledge based accreditation process to one that includes professional skills as part of the competency based accreditation process, technical knowledge remains important. The objective of the paper is to determine the expectation-performance gap, firstly by quantifying the levels of technical auditing and assurance knowledge capability audit managers expect of newly employed first year trainee accountants (which are defined as first year trainee accountants during the first three months of their training contracts for the purpose of this paper), and secondly by determining whether the technical auditing and assurance knowledge actually displayed by the newly employed first year trainee accountants meets the expectations of the audit managers.

A questionnaire was used to determine audit managers' perceptions regarding their expectations and the actual levels of capability demonstrated by newly employed first year trainee accountants when performing technical audit and assurance tasks. The findings indicated that audit managers do not expect newly employed first year trainee accountants to be capable of performing any of the identified technical audit and assurance tasks without, or with only limited supervision. With regard to the second objective it was evident that newly employed first year trainee accountants do not meet audit managers' expectations. The technical audit and assurance task with the largest expectation-performance gap was the ability of newly employed first year trainee accountants to consider and document the need to use computer assisted audit techniques to gather audit evidence, with an expectation-performance gap of 28.9%.

The findings could assist the South African Institute of Chartered Accountants' (SAICA's) efforts to improve its competency framework by assessing the effectiveness of the implementation and enforcement of the competency framework at accredited universities. The findings could also be relevant to accredited universities and audit and assurance academics in that it could provide focus to their reflections on and efforts to improve the development of graduates' ability to perform audit and assurance tasks, as they will now know what levels of capability are expected by graduates' future employers. Lastly, the findings can assist training officers at audit firms to develop and implement effective and appropriate audit and assurance training opportunities for first year trainee accountants to help them bridge the expectation-performance gap, as the key components and extent of the gap have now been determined.

3.1 INTRODUCTION AND BACKGROUND

During the last few decades professional accounting bodies worldwide have introduced competency frameworks, which include technical knowledge as well as the professional skills that entry-level accounting professionals should possess when entering the profession (Barac, 2009b). Despite the accounting profession having shifted from a knowledge based accreditation process to one that includes professional skills as part of the competency based accreditation process, technical knowledge remains important (Steenkamp, 2012). Stakeholders' expectations regarding the professional skills that accounting graduates should possess have been widely investigated (Jackling & Watty, 2010), but limited research has been done on stakeholders' expectations of their technical knowledge (Barac, 2009c; Coetzee & Oberholzer, 2009; Joubert, Coetzee & Oberholzer, 2009).

When thinking about technical knowledge, core academic subjects such as financial accounting and reporting, management accounting and control, financial management and management decision making and control, taxation and audit and assurance come to mind (IFAC, 2014a; SAICA, 2014). The focus of this paper is on newly employed first year trainee accountants' abilities to perform technical audit and assurance tasks, as this is where in practice they are primarily involved.

Audits are performed to provide assurance regarding the reasonableness of the information contained in an entity's financial statements (IFAC, 2009a; IFAC, 2009b; Scholtz, 2014) and is performed according to specific standards. As the business world has progressed and as a result of various unsavoury incidents (e.g., the collapse of Enron and Worldcom), auditors and the audit profession have come under increasingly intense scrutiny (McPeak, Pincus & Sundem, 2012). This has resulted in increasing regulation of the audit profession which has led to the enhancement of auditing standards (IFAC, 2016; Palmer, Ziegenfuss & Pinsker, 2004), amongst other measures, which has in turn impacted on the way in which auditors perform their duties.

Auditors need to be able to apply standards to an acceptable level of competence whilst performing their duties during audits (SAICA, 2015a). Various accounting and auditing bodies worldwide have established competency based professional requirements, and the associated assessment methods for certifying professional accountants (Barac, 2009a). The SAICA issued its first competency framework in 2008 (Barac, 2009b; Strauss-Keevy, 2014) which was revised and updated in 2014 (SAICA, not dated b). This competency framework contains the competencies entry-level professional accountants should have mastered before entering the profession, i.e., after the completion of their undergraduate and postgraduate education programmes, practical training programmes, professional programmes and all assessments (SAICA, 2014).

This competency framework has therefore created a responsibility to deliver work-ready professional accountants to the market that is shared between universities (generally the presenters of education programmes), accounting and audit practices active in commerce and industry (where practical training programmes are presented at training offices accredited by the SAICA) and the SAICA itself (the professional body responsible for the final assessments and professional accreditations). There is however an ongoing debate regarding the division of responsibilities between universities and training offices, and the existing gap between trainee accountants' actual levels of capability when performing technical tasks and the levels of capability expected of them by training offices; this is referred to as the expectation-performance gap (Bui & Porter, 2010).

To assist universities in their efforts to honour their part of the agreement, the SAICA issued a *Framework Summary of Detailed Guidance for the Academic Programme* in which the competencies of a professional accountant at the point of writing the Initial Test of Competence (ITC) is summarised (SAICA, 2014). The ITC is written at the completion of aspiring professional accountants' academic programmes, at the start of trainee accountants' practical training programmes (Coetzee & Oberholzer, 2009; SAICA, not dated a; SAICA, 2014) at registered training offices (which can be at audit firms (which are classified as small, medium or large), or at companies in commerce and industry) (Barac, 2009b; Coetzee & Oberholzer, 2009; Van Romburgh & Van der Merwe, 2015). The *Framework Summary of Detailed Guidance for the Academic Programme* is used by educators when identifying those competencies that trainee accountants entering into their training programmes should already have mastered. The remaining competencies contained in the competency framework should then be developed under the guidance of seniors in training offices during their official training periods (SAICA, 2014).

The technical knowledge expected from accounting graduates has been investigated and reported on in a number of countries. These studies have looked at the various accountancy-focused subject areas and courses, including financial accounting and reporting, taxation and audit and assurance (Awayiga, Onumah & Tsamenyi, 2010; Bui & Porter, 2010; Coetzee & Oberholzer, 2009; Hancock, Howieson, Kavanagh, Kent, Templone & Segal, 2009; Jackling & De Lange, 2009; Joubert *et al.*, 2009; Kavanagh & Drennan, 2008; Uyar & Gungormus, 2011; Van Romburgh & Van der Merwe, 2015). It has been reported that in general, practitioners expected graduates to have basic technical knowledge (Hancock *et al.*, 2009), and that firm size has an effect on the depth of understanding of technical knowledge expected from graduates (Bui & Porter, 2010). The degree of exposure to technical knowledge that graduates were expected to have, within the first six months of their training contracts, has also been investigated (Barac, 2009a; Barac, 2009c).

In the Bui and Porter study (2010) it was reported that according to practitioners, graduates were not able to demonstrate the expected practical accounting knowledge, and their ability to perform specific audit and assurance tasks was also lacking (Van Romburgh & Van der Merwe, 2015). This gives rise to a number of

questions such as: what is the level of competency that is expected of graduates when performing technical tasks, is the gap really as big as practitioners would like academic institutions to believe/accept responsibility for? And should there not be a “team teaching” approach to getting graduates through their first year “in the real world”, with far more interaction between training institutions and academia starting at latest during the final academic year?

This study focuses on the expected and the actual levels of capability of newly employed first year trainee accountants to perform tasks the profession deems appropriate to their technical audit and assurance knowledge levels, based on the perceptions of audit managers. This is investigated from a South African perspective, and is based on the viewpoint of audit managers at large audit firms in Gauteng.

The objectives of this study are therefore twofold: firstly, to quantify the level of capability expected of newly employed first year trainee accountants (the “expectation”) by audit managers when performing audit and assurance related tasks, and secondly to determine whether the audit and assurance related tasks performed by newly employed first year trainee accountants (the “performance”) meet the expectations of the audit managers, and if they do not meet that expectation, to quantify the expectation-performance gap.

This study contributes to the current body of knowledge regarding the accounting professions’ expectations of the performance of audit and assurance related tasks by newly employed first year trainee accountants, as this level of capability will be quantitatively determined. Secondly, it will benchmark the extent of the expectation-performance gap as perceived by audit managers with regard to the ability of newly employed first year trainee accountants to perform audit and assurance tasks.

3.2 LITERATURE REVIEW

3.2.1 History and purpose of auditing

In the early days of structured economic activity, owners managed their own businesses, but as the business world developed it led to a separation of the owners (shareholders) from the managers (directors); owners increasingly entrusted the management teams of businesses to look after the owners' interests. This created a need amongst the owners of businesses for external (and independent) confirmation of the reliability and relevance of the information provided to them by management, which need was addressed by the development of audits (Scholtz, 2014).

Audits are performed according to specific standards (referred to as the International Standards on Auditing (ISAs)), with the purpose of enhancing the degree of confidence intended users can place in financial statements by expressing an audit opinion on the fairness (accuracy) of the presentation of a company's financial position, its financial performance and its cash flows. "Fairness" is measured against an appropriate and respected financial reporting framework (IFAC, 2009a; IFAC, 2009b). The first ISAs were developed in the 1970s (Roussey, 1992; Roussey, 1999) as guidelines, and formed part of the harmonisation process between the International Federation of Accountants (IFAC) and its member bodies (Roussey, 1999). In 1994 a core set of ISAs was completed and published by the International Auditing Practices Committee (IAPC), a subcommittee of the IFAC, the authoritative nature of which is now widely accepted across the globe (Roussey, 1999). As the business world evolved, and was influenced by various adverse incidents (e.g., collapses of Enron and Worldcom), users lost confidence in the then current financial reporting standards and the audit profession (McPeak *et al.*, 2012). This resulted in increasing levels of regulation of the audit profession which in turn led (during the period 2003 to 2008) to the clarification of the ISAs, which enhanced their effectiveness and applicability, amongst other benefits (IFAC, 2016; McPeak *et al.*, 2012; Palmer *et al.*, 2004; Schilder, 2016). Auditors need to be competent in the application of these standards whilst performing their duties at the workplace for their work to be judged "acceptable" (SAICA, 2015a).

3.2.2 Impact on the accounting profession

In order to ensure the quality of professional accountants' work efforts, irrespective of where they qualified, Accounting Education Standards were developed and enforced through the efforts of member bodies of the IFAC and professional accounting bodies worldwide (McPeak *et al.*, 2012). These Accounting Education Standards define the professional skills, technical knowledge and attributes which professional accountants should have at point of entry into the profession. In addition, many professional accounting bodies have established their own competency based professional requirements that also contain high-level descriptions of the competencies an entry-level accounting professional should possess (Barac, 2009a). The American Institute of Certified Public Accountants, for example, developed a competency framework in 1999; the Chartered Accountants of Canada published their Competency Map in 2002. This was followed by the development and publication of similar competency frameworks by the Institute of Chartered Accountants in Australia, the Institute of Chartered Accountants in New Zealand, and the Australian Society of Certified Public Accountants (Barac, 2009b).

The SAICA issued its first competency framework in 2008 (Barac, 2009b; Strauss-Keevy, 2014), which was based on the competency framework previously developed by the Canadian Institute of Chartered Accountants. The SAICA's framework was revised and updated in 2014 (SAICA, not dated b). The SAICA's competency framework includes the competencies a South African chartered accountant (CA(SA)) should possess at point of entry into the job market: the competency framework includes both professional skills and technical knowledge (SAICA, 2014). Professional accountants need to have sufficient technical knowledge so that they are then able to function in an increasingly complex and changing environment (IFAC, 2014). The technical knowledge components included in the SAICA competency framework are grouped into six categories: these are strategy, risk management and governance; accounting and external reporting; audit and assurance; financial management; management decision making and control, and taxation (SAICA, 2014).

3.2.3 Impact on education

Educators use competency frameworks as guidance, and although the content is prescribed, no courses or educational material has yet been provided to educators (Coetzee & Oberholzer, 2009). In addition, educators in South Africa use a *Framework Summary of Detailed Guidance for the Academic Programme* issued by the SAICA to determine the competencies expected of graduates at the start of their training at training offices (SAICA, 2014). Despite the assortment of guidance the various professional organisations have provided, there remains an ongoing debate worldwide regarding the respective responsibilities of universities and of training offices. The debate extends to the causes of the gap that exists between accounting graduates' actual levels of capability with respect to skills and performance of tasks, and the level of capability expected from them by training offices; this is referred to as the expectation-performance gap (Bui & Porter, 2010).

The role of universities, as part of the CA(SA) designation process, is to equip students with an awareness and understanding of specific subject areas (Botha, 2001; Venter & De Villiers, 2013). In addition, students learn to apply, analyse, synthesise and evaluate the technical knowledge specific to the six subject areas identified above (Botha, 2001). At the end of the tertiary educational part of the process, students will therefore “know that” specific subject knowledge exists and “know how” to apply that specific subject knowledge to real life cases, thus demonstrating that students have developed their intellectual capabilities (Botha, 2001; Bui & Porter, 2010; Jackling & De Lange, 2009). Unfortunately, the theoretical application of specific subject knowledge within the university environment differs from the practical application thereof in the real world workplace (Botha, 2001; Howieson, 2003; Paisey & Paisey, 2007; Paisey & Paisey, 2010). The only way in which students can practice and become “able” to perform the technical tasks associated with specific subject knowledge is through on-the-job training that takes place using real clients' data and their unique circumstances (Jackling & De Lange, 2009; Rudman & Terblanche, 2011; Schutte, 2013).

This difference between theory and practice emphasises the previously mentioned point that it is widely seen as a shared responsibility between universities and training offices to develop and deliver competent professional accountants with the

expected professional skills and technical knowledge to the world of work (McPeak *et al.*, 2012). However, a contrarian view emerged in studies conducted in Australia where it was found that 58% of employers felt that the teaching and development of the technical knowledge component of accountants' training was the universities' responsibility (Hancock *et al.*, 2009), and regarded the graduates' technical knowledge to be a given (Jackling & De Lange, 2009), thus negating any idea of this being a shared responsibility.

The degree to which the shared responsibility is accepted and implemented varies between countries, and there is no "one size fits all" model that leads to the delivery of 100% work-ready professional accountants to the market (McPeak *et al.*, 2012). In the United Kingdom, registered professional bodies are primarily responsible for the education as well as the practical training of aspiring accountants; aspiring accountants complete courses through the professional bodies whilst gaining their practical experience (McPeak *et al.*, 2012). Universities in the United States, in contrast, play a large role in the preparation of accountants entering the accounting profession, and little practical experience is required before one can be registered as a Certified Professional Accountant (McPeak *et al.*, 2012).

When looking at the history of education and training of professional accountants in South Africa it should be noted that as early as the 1950s technical colleges, universities and correspondence courses were involved in preparing trainee accountants to write the qualifying assessment (Puttick & Van Esch, 2007; Wolman, 1976). On 1 November 1951 the Public Accountants' and Auditors' Act (Act 51 of 1951) came into operation and this resulted in the establishment of the Public Accountants' and Auditors' Board (PAAB) (the predecessor of the current Independent Regulatory Board for Auditors), which was responsible for the registration and control of trainee accountants, and the conduct of qualifying examinations, amongst its various duties (Marx, Sconfeldt, Van der Watt, Van Dyk, Maré & Ramuedzisi, 2011; Puttick & Van Esch, 2007).

In 1962 a committee investigating the educational requirements of future accountants and the associated educational structure this required in South Africa, defined the basic requirements needed to deliver appropriately qualified accountants as a system containing educational, training and assessment

components (Wolman, 1976), already highlighting the shared nature of this responsibility. The roles of the various professional bodies in the education and training of professional accountants were consolidated in 1980 when the SAICA was formed out of the merger of the provincial chartered accountant societies (Puttick & Van Esch, 2007). Then, in 1999 many of the education and training responsibilities previously performed by the PAAB were transferred to the SAICA (Puttick & Van Esch, 2007). As mentioned earlier, the SAICA issued its first competency framework only in 2008 (Barac, 2009b; Strauss-Keevy, 2014) at which time it also introduced its formal process of evaluation and assessment of trainee accountants' technical competence and professional skills during their training contracts (SAICA, 2009). This measurement of trainee accountants' actual capabilities expanded the debate regarding the respective responsibilities of universities and training offices.

3.2.4 Previous research

Stakeholders' expectations regarding which professional skills accounting graduates should possess have been widely investigated (Jackling & Watty, 2010) but limited research has been done on their technical knowledge expectations (Barac, 2009c; Coetzee & Oberholzer, 2009; Joubert *et al.*, 2009). In contrast, it has been generally reported that graduates are unable to apply their technical knowledge in practice (Van Romburgh & Van der Merwe, 2015). Below follows a summary of previous research relating to various accountancy-focused subject areas and courses, including financial accounting and reporting, taxation and audit and assurance.

When looking at the individual technical knowledge areas an aspirant accountant needs to have mastered, a study in Turkey (in which the necessity of the 24 prerequisite courses for the auditing profession were investigated), reported that auditing had the highest mean score, followed by accounting and financial reporting standards, financial statement analysis, financial accounting, capital market board regulations, cost accounting and managerial accounting (Uyar & Gungormus, 2011). Emerging from a study in Ghana in which employers' expectations regarding graduates' technical knowledge were surveyed, employers

expected most technical proficiency in cost and financial accounting and reporting, followed by taxation and auditing and assurance (Awayiga *et al.*, 2010).

With regard to technical knowledge requirements for financial accounting and reporting, various researchers have reported that practitioners expect graduates to have basic but key accounting (bookkeeping) skills (Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008), and the ability to prepare financial statements (Hancock *et al.*, 2009). Another research finding has suggested that firm size has an impact on the financial accounting and reporting knowledge expected from graduates. Small and medium size firms expect graduates to have technical financial accounting and reporting skills on day one, whilst large firms felt that technical financial accounting and reporting skills could be obtained/developed during the graduates' training period (Bui & Porter, 2010). In addition to technical financial accounting and reporting knowledge, employers expected graduates to have already developed their general and business knowledge (Bui & Porter, 2010). According to Awayiga *et al.*, (2010) graduates' knowledge in areas of business and financial accounting and reporting was found to be "very good/good", in contrast with the finding of Van Romburgh and Van der Merwe (2015), who reported that graduates lacked basic financial accounting and reporting knowledge.

With regard to graduates' technical knowledge requirements for taxation, a study was conducted in South Africa to determine the taxation topics graduates should be taught (according to accounting practitioners) (Joubert *et al.*, 2009), whilst Hancock *et al.*, (2009) reported that practitioners expected graduates to have basic taxation knowledge on arrival, and that specialist taxation knowledge was not a requirement. Research in pre-graduation taxation education was taken one step further by Coetzee and Oberholzer in 2009 when the satisfaction of practitioners with the performance of taxation duties of graduates was reported on: graduates' taxation knowledge was categorised as being of a "general", "working" or "thorough" standard for the majority of the tax topics surveyed.

With regard to technical knowledge requirements for financial management and for management decision making and control, it was reported that practitioners

expected graduates to be able to analyse financial statements (Hancock *et al.*, 2009).

Hancock *et al.*, (2009) in their research on technical knowledge requirements for the audit and assurance aspect of their duties, reported that practitioners expect graduates to have basic auditing and assurance knowledge and that specialist auditing and assurance knowledge was not expected. According to Awayiga *et al.*, (2010) graduates' auditing and assurance knowledge was found to be "very good/good", but in South Africa Van Romburgh and Van der Merwe's (2015) research indicated that graduates were unable to determine the extent of testing needed in audits, nor were they able to prepare working papers on their own.

In South Africa the specific knowledge requirements employers expect of *graduates within the first six months of their training contracts* relating to the core subjects of financial accounting and reporting, management accounting, financial management, taxation and audit and assurance were investigated by Barac (2009a; 2009c). The importance of topics relating to the mentioned core subjects were reported based on training officers' perceptions (Barac, 2009a; Barac, 2009c). According to the findings all 22 of the identified audit and assurance topics were considered to be "important" (Barac, 2009a). Ten of the 22 identified audit and assurance topics were reportedly as "very important" or "extremely important", with a further five as "reasonably important" (Barac, 2009a).

As can be seen from the above, the research regarding the technical knowledge requirements relating to audit and assurance has been limited to practitioners' expectations from their graduate employees; significantly less research has been published on the nature and extent of the expectation-performance gap between what practitioners expect and the actual performance of graduates in these areas.

This study builds on previous research regarding practitioners' expectations from graduates with regard to audit and assurance knowledge by increasing the specificity of the research questions. Thus, the research looks at the level of capability expected of newly employed first year trainee accountants relating to specific audit and assurance tasks. In addition this research quantifies the expectation-performance gap with regard to audit and assurance knowledge.

3.3 METHODOLOGY

This study has made use of a quantitative mode of inquiry to answer the following two research questions:

Research question 1: What level of capability is expected of newly employed first year trainee accountants when performing audit and assurance tasks?

Research question 2: Do newly employed first year trainee accountants perform audit and assurance tasks at the level expected of them by audit managers, and if they do not meet that expectations, determine the size of the expectation-performance gap?

This study focuses on the technical audit and assurance knowledge of newly employed first year trainee accountants (as first year trainee accountants' are primarily involved in technical tasks related to audit and assurance,) in order to determine the level of capability expected by audit managers (Di Fabio, Hartung, McIlveen, McMahon, Morgan, Panulla, Theron, Van der Walt & Watson, 2012). The research also determines whether the tasks performed by the newly employed first year trainee accountants meet the expectations of audit managers, and if they do not meet that expectation, the extent of the gap (Di Fabio *et al.*, 2012). A questionnaire survey was used to determine audit managers' perceptions regarding their expectations and the actual levels of capability demonstrated by newly employed first year trainee accountants when performing technical audit and assurance tasks.

The questionnaire used in this study examined 12 technical audit and assurance tasks identified in the SAICA's "*technical skills review document*" (TSR). The TSR is based on the SAICA's competency framework, which in turn was based on the competency framework developed by the Canadian Institute of Chartered Accountants (SAICA, not dated b). The TSR is used by training offices to review and assess trainee accountants' technical skills during their training contracts (SAICA, 2015b). The TSR addresses 26 technical tasks which trainee accountants should be able to perform during the first year of their training contracts. Of these 26 tasks, 24 are related to audit and assurance. The 24 technical audit and

assurance tasks expected of trainee accountants during the first year of their training contracts were presented to accounting practitioners responsible for trainee accountant training at large firms, with the request that they identify the audit and assurance tasks **not** typically expected of trainee accountants during the first three months of their training contracts. Thereafter discussions took place regarding the audit and assurance tasks they had removed, as well as the remaining ones. The tasks excluded from the questionnaire were tasks which, although expected of trainee accountants during the first year of their training contracts in terms of the TSR, were not generally expected of trainee accountants during the first three months of their training contracts. The tasks relate to areas such as the assessment of group-wide controls and the identification of a change to the audit plan.

As a result of the “delete” request and the subsequent discussions, the 24 audit and assurance tasks were reduced to the 12 tasks that accounting practitioners currently expect trainee accountants to be able to perform during the first three months of their training contracts. The 12 technical audit and assurance tasks addressed in the questionnaire relate to the understanding of business cycles, and the performance and conclusion of audit procedures. They relate to technical audit and assurance knowledge components such as audit planning, risk assessment and internal control and audit procedures to gather audit evidence: these were identified in a previous study dealing with the technical knowledge graduates are expected to possess in the period from immediately after graduation to the end of the first six months of their training contracts (Barac, 2009a).

Part 1 of the questionnaire dealt with the respondents’ expectations of the ability of newly employed first year trainee accountants to perform technical audit and assurance tasks. The respondents’ views on the actual level of the capability of newly employed first year trainee accountants to perform technical audit and assurance tasks were obtained in part 2. The questions required a Likert-scale response and dealt with the respondents’ expectations and perceptions of the actual abilities of newly employed first year trainee accountants to perform the 12 listed tasks. The capability scales offered to respondents ranged from 1 (representing “not capable”), 2 (“capable with frequent supervision/intervention”), 3 (“capable with

limited/periodic supervision/intervention”), and 4 (“capable without supervision/intervention”). This is the same scaling that is used by training offices to assess trainee accountants’ competencies during their training contracts (SAICA, 2012b).

Part 1 also contained an open-ended question that allowed respondents to add any additional audit and assurance tasks they expected a graduate to be able to demonstrate after three months of practical experience. The open-ended question in Part 2 asked the audit managers to describe any additional technical knowledge they felt that trainee accountants should have been taught while at university, or that they felt the first year trainee accountants needed, but did not yet possess.

As most graduate trainee accountants are employed by large audit firms (Van Romburgh & Van Der Merwe, 2015) and it was reported in this particular study that the large audit firms did not participate to the extent expected by the researchers (Van Romburgh & Van der Merwe, 2015) the questionnaires were distributed to 103 audit managers, working with trainee accountants on a regular basis, at four of the large audit firms operating in Gauteng by their respective training officers.

Thirty eight completed questionnaires were received back and the quantitative data from the completed questionnaires were captured into an electronic spread sheet, where after statistical analysis application software (SPSS) was used to analyse the results. Mean scores were calculated based on the expected and the actual levels of capability for each of the individual audit and assurance tasks. This enabled the identification of the expected level of competence, as well as the expectation-performance gaps for each of the tasks. The differences between the expected and the actual levels of capability were calculated for each of the tasks and the differences were then used to calculate the percentage differences, thus quantifying the size of the expectation-performance gap.

A one sample t-test was conducted for each of the tasks to determine if the differences in the means of the expected levels of capability and the actual levels of capability for each of the tasks were statistically significant. The one sample t-test compares the mean of a single column of numbers (the differences) against a mean of zero, and was used to determine whether the differences were statistically significantly different from zero.

The open-ended questions' responses were analysed in an attempt to identify whether any clear themes would emerge from them. No additional audit and assurance tasks expected from graduates emerged from this analysis.

3.4 FINDINGS

The first objective of the study was to quantify audit managers' expectations with respect to the abilities of newly employed first year trainee accountants to perform tasks relating to audit and assurance. These are presented below.

3.4.1 Expected capabilities of newly employed first year trainee accountants

In order to determine the audit managers' expectations of the abilities of newly employed first year trainee accountants to perform technical audit and assurance tasks, a mean score was calculated for each of the tasks. The respondents' expectations of the capability of newly employed first year trainee accountants with respect to performing the technical audit and assurance tasks are presented in Table 3.1 below: SD = standard deviation and M = mean value.

Table 3.1: Audit managers' expectations of audit and assurance knowledge of newly employed first year trainee accountants

	SD	M
Performance of audit procedures		
Perform or evaluate reconciliations of financial information (LS)	0.57	2.66
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions for example sales, cost of sales, operating expenses, etc (LS)	0.73	2.68
Consider and document the need to use computer assisted audit techniques to gather audit evidence (FS)	0.55	2.11
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required (FS)	0.64	2.18
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required (FS)	0.63	2.24
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required (LS)	0.63	2.61
Evaluate the results of the substantive tests of detail in conjunction with planning materiality levels and respond appropriately to the conclusion reached (FS)	0.62	2.37
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exists to support the conclusion on the audit work done (FS)	0.73	2.32

Understanding business cycles		
Perform and document the planned tests of controls and identify situations where follow up/extended work is required (FS)	0.63	2.39
Determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (FS)	0.65	2.19
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and make practical recommendations for improvement by the client (FS)	0.69	2.21
Concluding on audit procedures and business cycles		
Draw conclusions on whether the audit procedures meet the stated audit objectives (LS)	0.72	2.50

Mean interpretation: MS = Capable with **minimum**/without **supervision** (mean ≥ 3.5), LS = Capable with **limited supervision** (mean ≥ 2.5 but < 3.5), FS = Capable with **frequent supervision** (mean ≥ 1.5 but < 2.5), NC = **Not capable** (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g a mean of 3.5, if rounded to the nearest 1 it would be rounded to 4 whilst a mean of 3.4 would be rounded to 3.

Based on the calculated mean scores it is evident that audit managers do not expect newly employed first year trainee accountants to be able to perform any of the tasks without supervision. They do however expect them to perform 4 of the 12 technical audit and assurance tasks with *limited* supervision and 8 with *frequent* supervision. The highest level of capability is expected for the analysis, calculation and/or evaluation of the accounting for routine (non-complex/simple) transactions for sales, cost of sales, and operating expenses, for example (M=2.68), followed by the ability to perform or evaluate reconciliations of financial information (M=2.66). Audit managers expect the lowest level of capability for the consideration and documentation of the need to use computer assisted audit techniques to gather audit evidence tasks (M=2.11).

The second objective of the study was to determine whether the audit and assurance tasks performed by the newly employed first year trainee accountants meets the expectations of the audit managers, and if they do not meet that expectation, to determine the size of this expectation-performance gap. The first step in achieving this objective was to determine (and quantify) the respondents' perceptions of the actual capabilities of newly employed first year trainee accountants in performing audit and assurance tasks.

3.4.2 Actual capabilities of newly employed first year trainee accountants

In order to determine the perceptions regarding the actual capabilities of newly employed first year trainee accountants with three months practical experience with respect to each of the tasks, a mean score was calculated for each of the tasks. The respondents' perceptions of the actual capabilities of newly employed first year trainee accountants to perform the tasks during the first three months of their training contract are presented in Table 3.2 below. Again, SD = standard deviation and M = mean value.

Table 3.2: Audit managers' perceptions of actual audit and assurance knowledge abilities of newly employed first year trainee accountants

	SD	M
Performance of audit procedures		
Perform or evaluate reconciliations of financial information (FS)	0.60	2.05
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions for example sales, cost of sales, operating expenses, etc (FS)	0.55	2.11
Consider and document the need to use computer assisted audit techniques to gather audit evidence (FS)	0.55	1.50
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required (FS)	0.51	1.71
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required (FS)	0.46	1.68
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required (FS)	0.60	2.11
Evaluate the results of the substantive tests of detail in conjunction with planning materiality levels and respond appropriately to the conclusion reached (FS)	0.66	1.92
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exists to support the conclusion on the audit work done (FS)	0.53	1.66
Understanding business cycles		
Perform and document the planned tests of controls and identify situations where follow up/extended work is required (FS)	0.60	1.89
Determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (FS)	0.69	1.87

Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and make practical recommendations for improvement by the client (FS)	0.60	1.71
Concluding on audit procedures and business cycles		
Draw conclusions on whether the audit procedures meet the stated audit objectives (FS)	0.64	1.89

Mean interpretation: MS = Capable with minimum/without supervision (mean ≥ 3.5), LS = Capable with limited supervision (mean ≥ 2.5 but < 3.5), FS = Capable with frequent supervision (mean ≥ 1.5 but < 2.5), NC = Not capable (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g a mean of 3.5, if rounded to the nearest 1 it would be rounded to 4 whilst a mean of 3.4 would be rounded to 3.

3.4.3 Expectation-performance gap for newly employed first year trainee accountants

In order to meet the second objective of the study (namely to determine whether the audit and assurance tasks performed by the newly employed first year trainee accountants meets the expectations of the audit managers), mean scores of the expected capabilities were compared to the mean scores of the actual capabilities for each of the tasks. This enabled the determination of whether an expectation-performance gap existed. The differences between the mean scores of the expected capabilities and of the perceived actual capabilities were converted to percentage differences, thus quantifying the size of the expectation-performance gap. The results per task are presented in Table 3.3 below, in which M = mean value.

Table 3.3: Audit and assurance knowledge expectation-performance gap for newly employed first year trainee accountants

	Expected M	Actual M	% Difference
Performance of audit procedures			
Perform or evaluate reconciliations of financial information (LS vs FS)	2.66	2.05	22.9%
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions for example sales, cost of sales, operating expenses, etc (LS vs FS)	2.68	2.11	21.3%
Consider and document the need to use computer assisted audit techniques to gather audit evidence (FS vs FS)	2.11	1.50	28.9%

Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required (FS vs FS)	2.18	1.71	21.6%
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required (FS vs FS)	2.24	1.68	25.0%
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required (LS vs FS)	2.61	2.11	19.2%
Evaluate the results of the substantive tests of detail in conjunction with planning materiality levels and respond appropriately to the conclusion reached (FS vs FS)	2.37	1.92	19.0%
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exists to support the conclusion on the audit work done (FS vs FS)	2.32	1.66	28.4%
Understanding business cycles			
Perform and document the planned tests of controls and identify situations where follow up/extended work is required (FS vs FS)	2.39	1.89	20.9%
Determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (FS vs FS)	2.19	1.87	14.6%
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and make practical recommendations for improvement by the client (FS vs FS)	2.21	1.71	22.6%
Concluding on audit procedures and business cycles			
Draw conclusions on whether the audit procedures meet the stated audit objectives (LS vs FS)	2.50	1.89	24.4%

Mean interpretation: MS = Capable with **minimum**/without **supervision** (mean ≥ 3.5), LS = Capable with **limited supervision** (mean ≥ 2.5 but < 3.5), FS = Capable with **frequent supervision** (mean ≥ 1.5 but < 2.5), NC = **Not capable** (mean ≥ 0 but < 1.5). The mean interpretation is based on mathematical rounding principles e.g a mean of 3.5, if rounded to the nearest 1 it would be rounded to 4 whilst a mean of 3.4 would be rounded to 3.

It is evident from Table 3.3 that newly employed first year trainee accountants do not meet audit managers' expectations. The technical audit and assurance task with the largest expectation-performance gap was the ability of newly employed first year trainee accountants to consider and document the need to use computer assisted audit techniques to gather audit evidence: perceived performance was 28.9% less than what audit managers expected. This was followed by their ability

to close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exists to support the conclusion on the audit work done: the difference was marginally better at 28.4%. The technical task showing the smallest expectation-performance gap was the ability of newly employed first year trainee accountants to determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls: this gap was only 14.6%.

3.4.4 Statistical significance of the differences

Table 3.4 below displays the results of the one sample t-tests, which were performed to determine whether the differences between the means of the expected levels of capability and perceived actual levels of capability for the technical audit and assurance tasks were statistically significant.

Table 3.4: Statistical significance of the expected and actual means

	M Diff	Sig. (2-tailed)
Performance of audit procedures		
Perform or evaluate reconciliations of financial information	0.61	p=0.000
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions for example sales, cost of sales, operating expenses, etc	0.58	p=0.000
Consider and document the need to use computer assisted audit techniques to gather audit evidence	0.61	p=0.000
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required	0.47	p=0.000
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required	0.55	p=0.000
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required	0.50	p=0.000
Evaluate the results of the substantive tests of detail in conjunction with planning materiality levels and respond appropriately to the conclusion reached	0.45	p=0.001
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exists to support the conclusion on the audit work done	0.66	p=0.000
Understanding business cycles		

Perform and document the planned tests of controls and identify situations where follow up/extended work is required	0.50	p=0.000
Determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls	0.26	p=0.048
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and make practical recommendations for improvement by the client	0.50	p=0.000
Concluding on audit procedures and business cycles		
Draw conclusions on whether the audit procedures meet the stated audit objectives	0.61	p=0.000

The difference in the means of the expected level of capability and the actual level of capability for each of the technical audit and assurance tasks was considered to be statistically significant if $p < 0.05$. The results indicate that the difference in the means of the expected levels of capability and the actual levels of capability for 11 of the 12 technical audit and assurance tasks are statistically significant. The only exception is in the ability of graduates to determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls. The results also indicate that in all instances the expected levels of capability are higher than the actual levels of capability demonstrated by graduates, as the mean differences are all positive and range between 0.26 and 0.66.

3.4.5 Additional skills expected by audit managers

Themes emerging from responses to the open-ended questions indicated that audit managers felt that newly employed first year trainee accountants should have been exposed to a more practical approach to audit and assurance at university. As one of the respondents mentioned: *"The theory of the ISAs does not make sense until you have practical experience."* This can be achieved by providing more practical examples and opportunities for practical application of theory within the lecturing time allocated to audit and assurance at universities, rather than simply lecturing about the theory.

3.5 SUMMARY AND CONCLUSION

There has been a shift in the accounting profession's accreditation processes worldwide, moving from a knowledge based accreditation process to a competency based accreditation process (Barac, 2009b). Upon entering the profession entry-level accounting professionals should therefore not only possess technical knowledge but professional skills as well (Barac, 2009b). But despite the shift, technical knowledge remains important (Steenkamp, 2012). Limited research has been done on expectations regarding the trainee accountants' technical knowledge (Barac, 2009c; Coetzee & Oberholzer, 2009; Joubert *et al.*, 2009). The study built on previous research regarding practitioners' expectations from graduates with regard to technical knowledge, and specifically audit and assurance knowledge, by investigating the level of capability expected of newly employed first year trainee accountants. In addition, this research has attempted to measure the expectation-performance gap with regard to audit and assurance knowledge displayed by newly employed first year trainee accountants.

The first objective of the study was to quantify the level of capability expected of newly employed first year trainee accountants by audit managers, when performing audit and assurance tasks. The study's findings indicated that audit managers do **not** expect newly employed first year trainee accountants to be capable of performing **any** of the identified technical audit and assurance tasks without or with only limited supervision. They expect newly employed first year trainee accountants to be able to perform four of the 12 identified technical audit and assurance tasks with only "limited supervision" and 8 with "frequent supervision". The highest level of capability is expected for the tasks of analysis, calculation and/or evaluation of the accounting for routine (non-complex/simple) transactions (for example sales, cost of sales, operating expenses, etc) (M=2.68), followed by the ability to perform or evaluate reconciliations of financial information (M=2.66).

The second objective of the study was to determine whether the audit and assurance tasks performed by the newly employed first year trainee accountants met the expectations of the audit managers, and if they did not meet that expectations, to determine the size of the expectation-performance gap. Upon comparison of audit managers' expectations against the audit managers'

perceptions of actual abilities of newly employed first year trainee accountants to perform technical audit and assurance tasks, it was determined that an expectation-performance gap does in fact exist. Audit managers' expectations were not met for any of the 12 audit and assurance tasks examined. The audit and assurance task with the largest difference was in the ability of newly employed first year trainee accountants to consider and document the need to use computer assisted audit techniques to gather audit evidence, which was 28.9% less than what audit managers expected. This was followed by the ability to close down audit section(s) and clear queries in order to evaluate the results of audit testing, and the ability to determine whether sufficient evidence exists to support the conclusion on the audit work done: here the difference was 28.4%. The technical tasks showing the smallest expectation-performance gaps were for the ability of newly employed first year trainee accountants to determine sample sizes, and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (14.6%).

This study could assist the SAICA to improve the competency framework and to assess the effectiveness of the implementation and enforcement of the competency framework at accredited universities. The findings could also be relevant to accredited universities and audit and assurance academics as an aid to their reflection on and efforts to improve the development of graduates' ability to perform audit and assurance tasks, as these results clearly indicate the levels of capability that employers expect. Lastly, the findings can assist training officers at audit firms to develop and implement effective and appropriate audit and assurance training opportunities for graduates entering into their training contracts in order to bridge the gap between academia and the work environment, as the extent of the expectation-performance gap has now been determined.

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CHAPTER 4

SUMMARY, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The objective of this dissertation, consisting of two research papers, was to determine the expectation-performance gap firstly, by quantifying the levels of professional skills and technical auditing and assurance knowledge capability audit managers expect of newly employed first year trainee accountants, and secondly by determining whether the professional skills and technical auditing and assurance knowledge actually displayed by the newly employed first year trainee accountants meet the expectations of the audit managers.

The first research paper (chapter 2 of this dissertation) dealt with the professional skills, including information technology (IT) skills (as IT skills are applicable to almost all of the specific technical knowledge subjects), whilst the second research paper (chapter 3 of this dissertation) dealt with the technical auditing and assurance knowledge demands on newly employed first year trainee accountants.

A quantitative mode of inquiry was used and data was collected by means of a questionnaire to determine the audit managers' expectations and experience regarding the actual level of capability being demonstrated by newly employed first year trainee accountants. The questionnaire used to examine the state of the skills and knowledge of newly employed first year trainee accountants was derived from the SAICA's "professional skills review document" (PSR) and its "technical skills review document" (TSR), both of which are based on the SAICA's competency framework, and are used by training offices to evaluate and assess trainee accountants' professional and technical skills during their training contracts. As most graduate trainee accountants are employed by large audit firms, audit managers at four of the large audit firms operating in Gauteng were invited to participate in the survey. The data were captured into an electronic spreadsheet, where after it was analysed using Statistical Analysis Application Software (SPSS).

The findings that addressed the first part of the research objective (to quantify the professional skills expectations of audit managers), indicated that audit managers expect newly employed first year trainee accountants to:

- demonstrate the highest level of capability in the business ethics professional skills category;
- be capable of demonstrating seven of the 22 individual professional skills, with minimal or without supervision;
- demonstrate 14 of the individual professional skills with limited supervision, and
- demonstrate only one professional skill under frequent supervision, namely their ability to resolve conflict and negotiate appropriate solutions.

With regard to the level of technical auditing and assurance knowledge audit managers expect of newly employed first year trainee accountants, it was found that audit managers do **not** expect these trainee accountants to be capable of performing any of the identified technical audit and assurance tasks without or even with only “limited supervision”. Audit managers do expect that with three months practical experience newly employed first year trainee accountants should be able to perform 4 of the 12 identified technical audit and assurance tasks with “limited supervision”, and the remaining 8 with “frequent supervision”. The highest level of capability is expected for the analysis, calculation and/or evaluation of the accounting for routine (non-complex/simple) transactions (for example sales, cost of sales, and operating expenses, where $M=2.68$), followed by the ability to perform or evaluate reconciliations of financial information, where $M=2.66$.

When turning to the second part of the objective of the dissertation (to determine whether the professional skills and technical auditing and assurance knowledge actually displayed by the newly employed first year trainee accountants met the expectations of the audit managers, and if they do not meet that expectation, to determine the size of the expectation-performance gap), results showed clearly that audit managers’ expectations are not being met, as there were material expectation-performance gaps for all of the 22 individual professional skills being investigated. The actual ability of newly employed first year trainee accountants to

perform technical audit and assurance tasks also do not live up to the audit managers' expectations, as their expectations were not met for any of the 12 examined audit and assurance tasks.

In the professional skills category the largest expectation-performance gap was measured in the personal attributes category. In this category audit managers indicated that newly employed first year trainee accountants demonstrated an actual ability that was 31.6% lower than their expectations. In the IT professional skills category there was an expectation-performance difference of 25.4%. The three individual professional skills showing the largest expectation-performance gaps were newly employed first year trainee accountants' abilities to:

- take responsibility for their own development (37.9% gap);
- deliver effective written communication (36.3% gap), and to
- keep abreast of global and local economic events through reading and interpreting the financial and business press (34.1% gap).

At the other end of the spectrum, the three individual professional skills showing the smallest expectation-performance gaps were the newly employed first year trainee accountants' abilities to:

- display honesty and integrity (9.4% gap);
- maintain objectivity and independence (13.3% gap), and to
- avoid conflict of interest (15.2% gap).

The audit and assurance task with the largest difference was the task requiring newly employed first year trainee accountants to consider and document the need to use computer assisted audit techniques to gather audit evidence: performance was 28.9% less than what audit managers expected. This was followed by the ability to close down audit section(s) and to clear queries in order to evaluate the results of audit testing, and to determine whether sufficient evidence existed to support the conclusion drawn from the audit work done: the expectation-performance difference was 28.4%.

The technical tasks showing the smallest expectation-performance gaps were those requiring newly employed first year trainee accountants to determine sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls (14.6%).

Arising from these results it is recommended that accredited universities and academics take cognisance of the findings and include appropriate teaching interventions in their programmes in order to equip graduates with the levels of professional skills and audit and assurance capabilities expected of them by audit managers. In addition, the identification and quantification of the expectation-performance gap components will enable training officers at audit firms and other approved training providers to develop and implement specific, effective and appropriate training opportunities for trainee accountants, to help them bridge the gap between university and working worlds. In addition, the results indicate areas in need of appropriate teaching interventions that would equip graduates with the levels of professional skills and audit and assurance capabilities expected of them by audit managers.

It is a recognised limitation of the study that it only reflects the views of audit managers at four of the large audit firms operating in Gauteng. Areas for future research could be to expand the research to survey small, medium and other large audit firms and commercially- and industry-focused companies which are registered as training offices in the same geographic area, and nationally. In addition the validity and reliability of the data was not validated and tests indicating that the pervasive skills subsections of each category forms one construct were not performed.

ANNEXURE E

For office use only

Questionnaire number:

			Q1
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The work readiness of 1st year trainee accountants in the first 3 months of their training contract

Instructions: In this questionnaire you will be asked for your opinion on **your expectations (as audit manager)** and the **1st year trainee accountants' actual ability (readiness)** relating to certain professional and technical skills. Your views will contribute to the on-going improvement of the teaching of prospective trainee accountants, therefore please use this opportunity responsibly. Your responses will be treated as strictly confidential.

Please complete the questions below by either selecting the most applicable answer (by marking it with a ✕ or a ✓) or completing the spaces provided.

PART 1: Demographic information

Gender

Q2	Male 1	Female 2

Race

Q3	African 1	Coloured 2	Indian 3	White 4

University at which highest qualification was obtained at:

Q4	Monash South Africa 1	Nelson Mandela Metropolitan University 2	North-West University 3

Number of years' experience as audit manager

Q5	Less than a year 1	1 to 2 years 2	3 to 4 years 3	More than 4 years 4

PART 2: EXPECTED work-readiness of 1st year trainee accountants in the first 3 months of their training contract

The following questions are concerned with determining your opinion about your **expectation** of 1st year trainee accountants in the first 3 months of their training contract relating to certain skills that will be used at the audit practice.

Rate based on your opinion, your **expectation** of 1st year trainee accountants demonstrating the skill or performing the task regarding the following using a scale of 1 to 4 where:

- 1 = “expect no capability”,
- 2 = “expect capable with frequent supervision/intervention”,
- 3 = “expect capable with limited/periodic supervision/intervention”, and
- 4 = “expect capable without supervision/intervention”.

To what extent do you **expect** 1st year trainee accountants, after 3 months of their training contract, to be ready to:

BUSINESS ETHICS: Acts ethically and in accordance with the rules of professional conduct					
	1	2	3	4	
Display honesty and integrity.					Q6
Carry out work with due care.					Q7
Maintain objectivity and independence.					Q8
Avoid conflict of interest.					Q9
Protect the confidentiality of information.					Q10
Maintain and enhance the profession’s reputation.					Q11
Adhere to the rules of professional conduct, including the SAICA Code of Professional Conduct.					Q12
Apply ethical principles to business activities.					Q13
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value					
Respond and adapt to change.					Q14
Ask appropriate and probing questions to obtain required information.					Q15
Communicate effectively in written format.					Q16
Communicate effectively in verbal format.					Q17
Take responsibility for own development.					Q18
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead					
Keep abreast of global and local economic events through reading and interpreting the financial and business press.					Q19
Apply project management principles such as meeting deadlines, etc.					Q20
Respect deadlines, manage time and organize tasks logically.					Q21
Work effectively with colleagues and clients from diverse backgrounds and cultures.					Q22
Collaborate with colleagues and works effectively as a team member.					Q23
Resolve conflict and negotiates appropriate solutions.					Q24
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively					
Effectively use IT applications including spreadsheets, word processing, presentations and e-mail.					Q25
Effectively use the internet as a source of information.					Q26
Apply procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc.					Q27

To what extent do you **expect** 1st year trainee accountants, after 3 months of their training contract, to be ready to:

TECHNICAL SKILLS REVIEW: Performance of audit procedures					
	1	2	3	4	
Perform or evaluate reconciliations of financial information.					Q28
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions, for example sales, cost of sales, operating expenses, etc.					Q29
Consider and document the need to use computer assisted audit techniques to gather audit evidence.					Q30
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required.					Q31
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required.					Q32
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required.					Q33
Evaluate the results of substantive tests of detail in conjunction with planning materiality levels and to respond appropriately to the conclusion reached.					Q34
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exist to support the conclusion on the audit work done.					Q35
TECHNICAL SKILLS REVIEW: Understanding business cycles					
Perform and document the planned tests of controls and identifies situations where follow up/extended work is required.					Q36
Determination of sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls.					Q37
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and to make practical recommendations for improvement by the client.					Q38
TECHNICAL SKILLS REVIEW: Concluding on audit procedures					
Draw conclusions on whether the procedures meet the stated objectives.					Q39

General

Any additional skills you expect a 1st year trainee accountant to be able to demonstrate after 3 months of their training contracts.

Q40

PART 3: ACTUAL work-readiness of 1st year trainee accountants in the first 3 months of their training contract

The following questions are concerned with determining your opinion about the **actual** work-readiness of 1st year trainee accountants in the first 3 months of their training contract relating to certain skills that will be used at the audit practice.

Rate based on your opinion, the **actual level** of capability of 1st year trainee accountants demonstrating the skill or performing the task regarding the following using a scale of 1 to 4 where:

- 1 = “not capable”,
- 2 = “capable with frequent supervision/intervention”,
- 3 = “capable with limited/periodic supervision/intervention”, and
- 4 = “capable without supervision/intervention”.

To what extent do you believe 1st year trainee accountants, after 3 months of their training contract, have the **actual** capability to:

BUSINESS ETHICS: Acts ethically and in accordance with the rules of professional conduct					
	1	2	3	4	
Display honesty and integrity.					Q41
Carry out work with due care.					Q42
Maintain objectivity and independence.					Q43
Avoid conflict of interest.					Q44
Protect the confidentiality of information.					Q45
Maintain and enhance the profession’s reputation.					Q46
Adhere to the rules of professional conduct, including the SAICA Code of Professional Conduct.					Q47
Apply ethical principles to business activities.					Q48
PERSONAL ATTRIBUTES: Maintains awareness of new developments, exercises initiative, communicates effectively and strives constantly to add value					
Respond and adapt to change.					Q49
Ask appropriate and probing questions to obtain required information.					Q50
Communicate effectively in written format.					Q51
Communicate effectively in verbal format.					Q52
Take responsibility for own development.					Q53
MANAGEMENT & LEADERSHIP: Demonstrates an ability to manage and lead					
Keep abreast of global and local economic events through reading and interpreting the financial and business press.					Q54
Apply project management principles such as meeting deadlines, etc.					Q55
Respect deadlines, manage time and organize tasks logically.					Q56
Work effectively with colleagues and clients from diverse backgrounds and cultures.					Q57
Collaborate with colleagues and works effectively as a team member.					Q58
Resolve conflict and negotiates appropriate solutions.					Q59
INFORMATION TECHNOLOGY: Uses IT as a means of working more efficiently and effectively					
Effectively use IT applications including spreadsheets, word processing, presentations and e-mail.					Q60
Effectively use the internet as a source of information.					Q61
Apply procedures and controls to ensure integrity and security of personal IT resources, e.g. password protection, backup procedures, antivirus measures, etc.					Q62

To what extent do you believe 1st year trainee accountants, after 3 months of their training contract, have the **actual** capability to:

TECHNICAL SKILLS REVIEW: Performance of audit procedures					
	1	2	3	4	
Perform or evaluate reconciliations of financial information.					Q63
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions, for example sales, cost of sales, operating expenses, etc.					Q64
Consider and document the need to use computer assisted audit techniques to gather audit evidence.					Q65
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required.					Q66
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required.					Q67
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required.					Q68
Evaluate the results of substantive tests of detail in conjunction with planning materiality levels and to respond appropriately to the conclusion reached.					Q69
Close down audit section(s) and clear queries in order to evaluate the results of audit testing and determine whether sufficient evidence exist to support the conclusion on the audit work done.					Q70
TECHNICAL SKILLS REVIEW: Understanding business cycles					
Perform and document the planned tests of controls and identifies situations where follow up/extended work is required.					Q71
Determination of sample sizes and methods of selection to obtain sufficient testing for the performance of tests of controls or the design and implementation of controls.					Q72
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and to make practical recommendations for improvement by the client.					Q73
TECHNICAL SKILLS REVIEW: Concluding on audit procedures					
Draw conclusions on whether the procedures meet the stated objectives.					Q74

General

Any additional skills you feel that 1st year trainee accountants should have been taught on whilst at university or that they need training on.

Q75
