Title page

Exploring the audit capabilities expectation-performance gap of newly employed first year trainee accountants in Gauteng: audit managers at large firms' perceptions

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Abstract

The objective of the paper is to determine the relative size of the expectation-performance gap of technical auditing and assurance knowledge of newly employed first year trainee accountants. In a study dealing with the expectation-performance gap in accounting education it was reported that according to practitioners, graduates were not able to demonstrate the expected practical accounting knowledge. This gives rise to the question: is the gap really as big as practitioners would like academic institutions to believe? As the relative extent of the gap will now be determined, the findings could assist audit and assurance academics in understanding accounting practitioners' expectations of and concerns about newly employed first year trainee accountant**s,** which as a result could be addressed in their education practices. In addition training at training offices at audit firms could be customised to focus on the areas in which the newly employed first year trainee accountants are lacking.

A questionnaire was used to determine audit managers' perceptions regarding their expectations and their perceptions regarding the actual levels of capability demonstrated by newly employed first year trainee accountants when performing technical audit and assurance tasks where after the relative size of the expectation-performance gap was determined. 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 but despite this rather low expectation, 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%.

Key words: audit capabilities, expectations, expectation-performance gap, trainee accountants

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, 2014; 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 they are primarily involved in pactice.

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 associated assessment methods for certifying professional accountants (Barac, 2009a). The South African Institute of Chartered Accountants (SAICA) issued its first competency framework in 2008 (Barac, 2009b; Strauss-Keevy, 2014) which was revised and updated in 2014 (SAICA, not dated a). 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. This responsibility is shared between universities (generally the presenters of education programmes), accounting and audit practices and 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' perceived actual levels of capability when performing technical tasks and the levels of capability expected of them by training offices, 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' education programmes, at the start of trainee accountants' practical training programmes (Coetzee & Oberholzer, 2009; SAICA, not dated b; SAICA, 2014) at registered training offices. These training offices can either be at audit firms, classified as small, medium or large audit firms, 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 to identify 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 trainee accountants' 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 Van Romburgh & Van der Merwe reported in 2015 that their ability to perform specific audit and assurance tasks was also lacking. 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 offices and universities starting at latest during the final academic year?

This study focuses on the difference between the expected and the perceived 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 objective of this study is to determine whether the audit and assurance related tasks performed by newly employed first year trainee accountants ("performance") meet the expectations of the audit managers, and if the expectation is not met, to determine the relative size of the expectation-performance gap. In order to achieve this objective the perceived actual level of capability ("performance") and the expected level of capability ("expectation") of newly employed first year trainee accountants when performing audit and assurance related tasks will have to be determined.

This study contributes to the current body of knowledge regarding the accounting professions' perceptions regarding the performance of audit and assurance related tasks by newly employed first year trainee accountants as the relative extent of the expectation-performance gap as perceived by audit managers will be benchmarked. In addition the expected level of capability of newly employed first year trainee accountants to perform audit and assurance tasks will be determined.

Literature review

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 lead 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 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).

Impact on the accounting profession

In order to ensure the quality of professional accountants' work efforts, irrespective of where they qualified, Accounting Education Standards (AESs) were developed and enforced through the efforts of member bodies of the IFAC and professional accounting bodies worldwide (McPeak *et al.*, 2012). These AESs 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 and 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 a). 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 to be 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).

Impact on education

Educators use competency frameworks as guidance, and although the content is prescribed, as the competencies expected after the completion of the education program are outlined ,(SAICA, 2014), 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' perceived 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; Low, Botes, Dela Rue & Allen, 2016; 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). This finding suggests that the idea of this shared responsibility place a heavier burden on the shoulders of the universities than on the shoulders of the training offices (Howieson, Hancock, Segal, Kavanagh, Tempone & Kent, 2014).

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 evaluation and assessment of trainee accountants' "actual" capabilities expanded the debate regarding the respective responsibilities of universities and training offices.

Previous research

Stakeholders' expectations regarding which professional skills accounting graduates should possess have been widely investigated (Abayadeera & Watty, 2014; Jackling & Watty, 2010; Naidoo, Jackling, Oliver & Prokofieva, 2011) but limited research has been done on their technical knowledge expectations (Barac, 2009c; Coetzee & Oberholzer, 2009; Joubert *et al.*,

2009). It was however 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 the various accountancy-focused subject areas and courses, including financial accounting and reporting, taxation and audit and assurance.

When looking at the *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). A study in Malaysia reported on employers (and graduates) evaluation and rating of the following five technical skills: financial accounting, management accounting, taxation, auditing and information systems (Ngoo, Tiong & Pok, 2015).

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. These contrasting findings might be due to differences between the two countries (Ghana and South Africa) in which the studies were conducted.

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.

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 perceived 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 question. This research determines the relative size of the expectation-performance

gap with regard to audit and assurance knowledge and in addition the research looks at the level of capability expected of newly employed first year trainee accountants relating to specific audit and assurance tasks

Methodology

This study has made use of a quantitative mode of inquiry and 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 answer the following research question:

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, what is the relative size of the expectation-performance gap?

Data collection

A variety of methods including questionnaires (Awayiga *et al.*, 2010; Barac, 2009a; Barac, 2009c; Coetzee & Oberholzer, 2009; Joubert *et al.*, 2009; Uyar & Gungormus, 2011; Van Romburgh and Van der Merwe, 2015), a combination of questionnaires, focus groups and interviews (Jackling & De Lange, 2009; Hancock *et al.*, 2009; Kavanagh & Drennan, 2008), and a case study and semi-structured interviews (Bui & Porter, 2010) were used in previous technical subject knowledge research. This study used a questionnaire survey to determine audit managers' perceptions regarding their expectations and the perceived actual levels of capability demonstrated by newly employed first year trainee accountants when performing technical audit and assurance tasks.

As the levels of technical knowledge capabilities have not previously been determined, which were essential for determining the relative size of the expectation-performance gap, 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 a). The TSR is used by training offices to review and assess trainee accountants' technical skills during their training contracts (SAICA, 2015b). It is therefore considered to be an appropriate measure to determine the extent of the expectation-performance gap of newly employed first year trainee accountants

as it will be used by the audit managers to review the trainee accountants' technical skills during their training contracts.

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 the tasks were compared and the ones that were identified as not typically being expected of trainee accountants during the first three months of their training contracts by all participating practitioners were deleted. 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 which could be regarded as high level tasks which would not be expected of newly employed first year trainee accountants.

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 perceived 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 perceived 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, 2012).

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.

Target population

In a study by Van Romburgh and Van Der Merwe (2015) and it was reported that the large audit firms did not participate to the extent expected by the researchers, based on their response rates (Van Romburgh & Van der Merwe, 2015). In order to address this lack of responses from large audit firms the questionnaires were distributed to 103 audit managers at four of the large audit firms operating in Gauteng by the firm's respective training officers. The purposive sampling technique, described as "the deliberate choice of an informant due to the qualities the informant possesses" (Tongco, 2007) was used for the selection of audit managers as target population. Audit managers work with trainee accountants on a daily basis and would therefore have the necessary knowledge and experience to comment on newly employed first year trainee accountants' abilities to perform audit and assurance tasks at the level expected of them.

Demographic profile of the respondents

Thirty-eight completed questionnaires were received from respondents of which the demographic information are contained in Table 1 below. Although the response rate was only 36.89%, the data collected via the responses are representative of the views of the audit managers on more than one newly employed first year trainee accountant (Abayadeera & Watty, 2014) and the findings should be interpreted with this in mind.

Table 1: Demographic information of respondents

	Male	Female	N	Total %
Gender (n)	18	20	38	
%	47%	53%	100%	
Number of years experience as audit manager (n)				
Less than a year	5	6	11	29%
1 to 2 years	6	5	11	29%
3 to 4 years	2	4	6	16%
More than 4 years	5	5	10	26%

Data analysis

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 perceived 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 perceived 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. These calculated percentage differences are relative, not absolute, therefore the analysis of the data should be interpreted keeping this limitation in mind.

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 perceived 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.

Findings

In order to determine if an expectation-performance gap exist the level of capability expected of newly employed first year trainee accountants ("expectation") and the perceptions of audit managers regarding the actual capabilities of newly employed first year trainee accountants in performing audit and assurance tasks need to be obtained. The expected capabilities are presented below where after it will be used to determine if an expectation-performance gap exist.

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 2 below: SD = standard deviation and M = mean value.

Table 2: 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	0.57	2.66	LS
Analyse, calculate and/or evaluate the accounting for routine (non-complex/simple) transactions for example sales, cost of sales, operating expenses, etc	0.73	2.68	LS
Consider and document the need to use computer assisted audit techniques to gather audit evidence	0.55	2.11	FS
Perform and document the planned substantive analytical review and identify situations where follow up/extended work is required	0.64	2.18	FS
Evaluate the results of the substantive analytical review procedures and conclude on whether (and where) more detailed audit testing is required	0.63	2.24	FS
Perform and document the planned substantive tests of detail and identify situations where follow up/extended work is required	0.63	2.61	LS
Evaluate the results of the substantive tests of detail in conjunction with planning materiality levels and respond appropriately to the conclusion reached	0.62	2.37	FS
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	0.73	2.32	FS
Understanding business cycles			
Perform and document the planned tests of controls and identify situations where follow up/extended work is required	0.63	2.39	FS
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	0.65	2.19	FS
Identify weaknesses in the client's internal control system, possible consequences of these weaknesses and make practical recommendations for improvement by the client	0.69	2.21	FS
Concluding on audit procedures and business cycles			
Draw conclusions on whether the audit procedures meet the stated audit objectives	0.72	2.50	LS

Mean interpretation: 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.

MS = Capable with **m**inimum/without **s**upervision (mean ≥ 3.5),

LS = Capable with **l**imited **s**upervision (mean ≥ 2.5 but < 3.5),

FS = Capable with **f**requent **s**upervision (mean ≥ 1.5 but < 2.5),

NC = **N**ot **c**apable (mean ≥ 0 but < 1.5).

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, substantiating the low technical knowledge expectations of employers (Low *et al.*, 2016). In addition this finding acknowledge that 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; Low *et al.*, 2016; Rudman & Terblanche, 2011; Schutte, 2013).

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 two high level tasks are both basic routine tasks, linking to basic accounting knowledge confirming the findings of previous research (Hancock *et al.*, 2009; Jackling & De Lange, 2009; Kavanagh & Drennan, 2008).

Expectation-performance gap for newly employed first year trainee accountants

In order to determine whether an expectation-performance gap exist, the study mean scores of the expected capabilities as presented above were compared to the mean scores of the perceived 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 relative size of the expectation-performance gap. The results per task are presented in Table 3 below, in which M = mean value.

Table 3: Audit and assurance knowledge expectation-performance gap for newly employed first year trainee accountants

		Expected M	Actual M	M Diff	% Diff	Sig. (2-tailed)
Performance of audit procedures						
Perform or evaluate reconciliations of financial information	LS vs FS	2.66	2.05	0.61	22.9%	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	LS vs FS	2.68	2.11	0.58	21.3%	p=0.000
Consider and document the need to use computer assisted audit techniques to gather audit evidence	FS vs FS	2.11	1.50	0.61	28.9%	p=0.000
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	0.47	21.6%	p=0.000
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	0.55	25.0%	p=0.000
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	0.50	19.2%	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	FS vs FS	2.37	1.92	0.45	19.0%	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	FS vs FS	2.32	1.66	0.66	28.4%	p=0.000
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	0.50	20.9%	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	FS vs FS	2.19	1.87	0.26	14.6%	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	FS vs FS	2.21	1.71	0.50	22.6%	p=0.000
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	0.61	24.4%	p=0.000

Mean interpretation: MS = Capable with **m**inimum/without supervision (mean ≥ 3.5), LS = Capable with **l**imited **s**upervision (mean ≥ 2.5 but < 3.5), FS = Capable with **f**requent **s**upervision (mean ≥ 1.5 but < 2.5), NC = **N**ot **c**apable (mean ≥ 0 but < 1.5), based on mathematical rounding principles e g 3.5, rounded to the nearest 1 would be rounded to 4 whilst 3.4 would be rounded to 3.

It is evident from Table 3 that newly employed first year trainee accountants do not meet audit managers' expectations with regards to all audit and assurance related tasks expected of them during the first three months of their training contracts. The expected mean were higher than the actual mean for all tasks enquired about and the difference in the means of the expected levels of capability and the perceived actual levels of capability for 11 of the 12 technical audit and assurance tasks are statistically significant. This confirms the existence of the expectation-performance gap as suggested by Bui and Porter (2010).

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: the perceived actual performance was 28.9% less than what audit managers expected. A possible explanation could be the practical and specialised nature of the task. 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%. This task involves professional judgment, a skill which might not have developed sufficiently at the early stages of a trainee accountants training period. 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%.

In interpreting the relative size of the determined expectation-performance gaps it need to be kept in mind that audit managers might not be objective when assessing trainee accountants performance as their own incentives and preferences might play a role (Bol, 2011). Audit firms therefore need to develop, implement and maintain assessment policies and procedures, including best practices, to ensure fair assessments of trainee accountants knowledge and skills.

Statistical significance of the differences

The last column in Table 3 above 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.

The difference in the means of the expected level of capability and the perceived 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 perceived 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 perceived actual levels of capability demonstrated by graduates, as the mean differences are all positive and range between 0.26 and 0.66.

Additional skills expected by audit managers

The three themes that emerged from the open-ended questions were professional skills such as communication and time management skills, information technology skills and specifically word, excel and advanced excel and lastly 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 by means of *inter alia* case studies, case based tutorials and simulations, which could be traditional or online simulations and simulations, within the lecturing time allocated to audit and assurance at universities, rather than simply lecturing about the theory. There were no specific suggestions on how the gap could be narrowed although a more practical approach to auditing at university level might help.

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 exploring the expectation-performance gap with regard to audit and assurance knowledge displayed by newly employed first year trainee accountants.

Upon comparison of audit managers' expectations against the audit managers' perceptions of perceived 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%). These calculated percentage differences are relative, not absolute, therefore the analysis of the data should be interpreted keeping this limitation in mind.

This study could assist the SAICA to assess the effectiveness of the implementation and enforcement of the competency framework at accredited universities by ensuring that the identified gaps in audit and assurance knowledge is sufficiently addressed by 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.

Areas for further research include the extension of the study to a larger population by including small and medium audit firms and large audit firms in other regions as well. The validity of the differences as well as possible suggestions on how to narrow the gap can also be investigated through focus groups and/or interviews with audit managers at audit firms and academia members. Another area for further research evolves around the question on whether audit managers will re-adjust their expectations of trainee accountants if the expectation-performance gap is either narrowed or widened.

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