Searching for good practice in the development and assessment of non-technical skills in accountancy trainees – a global study

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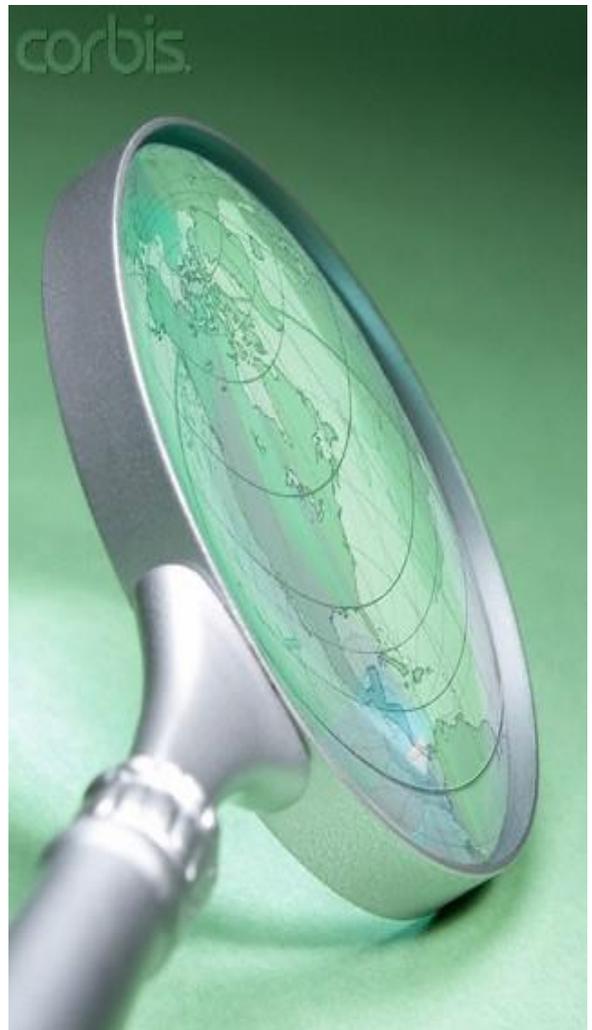*Erica Cargill*

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Executive Summary

The educational literature highlights the importance of non-technical skills to the battery of competencies that a qualified professional accountant must display. The aim of this research was to search for good practice in the development and assessment of non-technical skills. Questionnaires were therefore distributed to 35 accountancy bodies to which 18 bodies responded. The data gathered from this exercise was then used as a basis for undertaking a subsequent in depth review of educational practice which was positively evaluated in terms of the educational literature.

Whilst the journey to becoming a fully qualified accountant differs quite significantly from jurisdiction to jurisdiction, there are usually three strands of educational development to becoming a professionally qualified accountant, namely; university education, professional education and work experience. Each strand has a valuable role to play and professional accounting bodies should endeavour to ensure that their education programmes are constructively aligned with the requisite technical and non-technical skills of a newly qualified accountant.

As the ultimate responsibility lies with the professional body whether to admit an individual for membership or not, professional bodies must be able to convey what capability and to what level is required for admission. Each body should therefore develop their own individual framework which satisfies any appropriate generic framework such as IFAC or Common Content but which specifically addresses the capabilities required of a qualified accountant with that particular body. The logical extension to this is for professional accountancy bodies to articulate within each stand of the educational process what they require in terms of technical and non-technical skills development encompassing both the identified skill and the level of competence required within each strand.

These frameworks could then be subsequently used to regulate skills development (technical and non-technical) in universities as each university would need to demonstrate how they ensure that students graduating from their particular programme are competent at the requisite level for each identified skill.

The educational literature highlights the importance of assessment to the educational process, suggesting that assessment drives both teaching and learning. Non-technical skills must therefore be assessed otherwise they will be marginalised as students will concentrate on the skills which determine success in the assessment. The assessment of non-technical skills should also be introduced prior to the final admitting examination otherwise the potential for developing these skills throughout the training period is likely to be inhibited. The assessment should also, where possible, mirror the real life environment in which a newly qualified accountant is likely to find themselves in. Hence professional bodies should be encouraged to design their case studies around pre-seen material, within a multidisciplinary context and permit candidates to utilise word processing and spreadsheet packages in the design of their solutions.

There is little dissent by professional accounting bodies that work place experience is an integral part of the learning process in order to become a fully qualified accountant. It is therefore important that professional bodies require students to undertake a significant period of work experience as part of their training. However, in order for this valuable learning to be harnessed and recognised it is important that the skills developed/acquired during the work experience are also assessed, otherwise students will not pay sufficient attention to this aspect of their development.

In an attempt to avoid some of the criticisms levelled at work based assessment, professional bodies should develop an evidence based narrative approach so that any decision on whether a candidate has demonstrated a competence or not can be supported by either documentation or an observation. The assessment instrument which could be web-based for ease of completion should also incorporate different levels of achievement to encourage students to chart their development and address any shortfalls in their performance as they progress through their training contract. This approach should persuade students to reflect on their performance and hence develop their reflective capacity which is deemed a fundamental tool for continually improving professional competence. Finally, in order to increase the inter-reliability of assessors, professional bodies should provide formal assessor training and sufficient guidance for both parties in the assessment process.

This project did not set out to provide a global overview of professional education, nor did it set out to critically evaluate educational practice. The aim of the project was to search for good practice in the development and assessment of non-technical accounting skills in the creation

of a professionally qualified accountant. In this report we have provided readers with several examples of good practice across various components of the educational process. Professional bodies now need to reflect on their practices and evaluate these against 'good' practice elsewhere with a view to making any improvements where required for the development and assessment of non-technical skills.

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Introduction

The quality of accounting education has been subject to much scrutiny over the last two decades (AAA, 1986; Arthur Anderson *et al*., 1989; AECC, 1990; Mathews *et al*., 1990; IFAC, 1996; AICPA, 1998; Albrecht and Sack, 2000; Hancock et al., 2009), with the common theme of the research conducted being the requirement for accounting graduates and trainees to develop appropriate skills and competencies to meet the changing requirements of the profession.

Whilst the traditional needs of the accounting profession tended to focus on a narrow range of skills such as numerical accuracy, knowledge of rules and attention to detail (Parker, 2001; Howieson, 2003), recent changes to the business environment and to the way professional accountants require to operate within this have gathered such pace that the requirement for a whole new generic skill set has emerged (Boyce et al., 2001; Elliott and Jacobson, 2002; Howieson, 2003; IFAC, 2003; Jones, 2009) – a skill set which bears very little resemblance to the one which once gave rise to the traditional stereotype of accountants as '*number crunchers*' or '*beancounters*' (Steadman and Green, 1995; Parker, 2001; Karr, 2005). Firms now presume the existence of a technical skill set (Jackling and DeLange, 2009) whilst recognizing that non-technical skills are the key differentiator in terms of overall business performance. For the individual accountant therefore, development of these non-technical skills is considered to be key to professional career success (Gammie et al., 2008; Jackling and DeLange, 2009, Hancock et al. 2009).

Accounting bodies now find themselves in the position of having to develop in their trainees a wide-ranging set of contemporary non-technical skills. In many cases these skills are at odds with a professional education system which has traditionally emphasised the gaining of technical competence as its primary goal (AAA, 1986; AECC, 1990; Deppe et al., 1991; Currie, 1995; Adler and Milne, 1997; AICPA, 1998; Parker, 2001; Boyce et al., 2001; Elliott and

Jacobson, 2002; Howieson, 2003; Gammie et al, 2008). Thus professional accountancy bodies must extend the scope of their education systems well beyond the development of a technical knowledge base to include '*strong skills*' as this is the key to producing '*competent professional accountants with appropriate values, ethics and attitudes*' (IFAC, 2003 p27).

Central to these education systems are the assessment tools employed by the professional body, as it is upon these that the decision of whether an aspiring professional should be admitted as a full institutional member rests. Assessment should enhance an educational process by motivating students to undertake deep and long lasting learning (Entwhistle, 2000). If the assessment tool chosen is inappropriate, it can stifle both breadth and depth of learning – a phenomenon known as the backwash effect (*inter alia* Frederiksen, 1984; Alderson and Wall, 1993; Prodromou, 1995; Biggs, 1995, 1996, 2003; Cheng, 1997).

Thus, professional accountancy bodies should endeavour to ensure that all elements of the learning process, including the assessment, are 'constructively aligned' (Biggs, 1996) with the requisite technical and non-technical skills. The constructive alignment concept marries constructivism[1], as a theoretical approach to education, with the term instructional design and is used to describe the process of ensuring that learning outcomes, teaching and learning approaches, assessment techniques and course evaluation are complementary (Biggs, 1996). Hence all components of the educational process should interact with each other and if aligned sufficiently, will result in 'deep learning' (Jervis and Jervis, 2005) or learning which lasts for life, which Dochy (2005) argues, is the ultimate aim of professional education. Otherwise, if there is discourse within the educational process it is likely that the development of the requisite skills will be marginalised (Diamond, 2005) and qualified accountants will be unable to make the

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[1] Recent educational developments have seen a paradigm shift towards constructivism (Birenbaum, 2003). This 'grand theory' (Matthews, 2002) sees learning in qualitative rather than quantitative terms with the learner seen as central to the education process with responsibility for constructing his or her own meaning around the framework of information presented (Lines, 2004). Teachers have a secondary role as a catalyst for learning (Biggs, 2003) but the primary onus is on the students to be 'active participants' in the learning process (Lines, 2004)

expected '*positive contribution over their lifetimes to the profession and society in which they work*' (IFAC, 2003, p7).

However, professional accountancy bodies need to be able to discharge their educational development responsibilities in a resource effective manner whilst enhancing the educational effectiveness of their programs (Lines and Gammie, 2004). This is of particular relevance for competing professional accountancy bodies that need to be able to charge a competitive fee for training and assessment in order to attract firms to train their employees with them.

The aim of this research is to search for good practice in the development and assessment of non-technical skills with a view to disseminating this information around the global accounting education community.

The study will examine the extant literature before outlining the method chosen to gather the data. The results will then be discussed before conclusions are drawn and recommendations made regarding a range of good practice techniques.

The Literature

This literature review will begin by outlining the pertinent non-technical skills that should be developed in aspiring professional accountants. It will then discuss the changing educational models for developing these skills before concluding with a section on the importance of assessment for developing non-technical skills.

Identifying the appropriate non-technical skills

The demands of this new era for the accounting profession have been recognised for some time now (inter alia Bedford et al., 1986; Albrecht and Sacks, 2000; Parker, 2001; Rebele, 2002). However, the diverse nature of the accountancy profession with members operating in a wide variety of different domains, countries and roles (IFAC, 2003) has created difficulties in reaching agreement over exactly what combination of technical and non-technical skills the 21st Century accountant should possess.

Numerous independent attempts have been made to identify a comprehensive list of both technical and non-technical skills within the accountancy profession (*inter alia* ICAS, 1995; ICAEW, 1996; Bedford Report, 1996; ASCPA and ICAA 1997; IMA 1999). However, in order to ensure that a global view is taken, the framework established by IFAC (2003) and latterly by the Common Content Project (2005) will be used as a foundation for the identification of the requisite skills base. However, it is recognised that any prepared list of skills will quickly become outdated (Estes, 1997; IFAC 2003), and therefore academic literature will also be referred to in considering emerging areas in which non-technical skills in particular will be required.

The non-technical skill frameworks

In an effort to instil some consistency to worldwide professional education provision and to provide an exemplar of good practice, IFAC in 2003 developed the first framework of standards

(IES 1-6, 2003) which all 159 members and associates in 124 countries were required to incorporate into their existing educational provision. These standards were in response to a recognition that the traditional approach to education characterised by transfer of knowledge with learning measured strictly in terms of knowledge of principles, standards, concepts and facts was outdated and that, in order to ensure long term viability of the profession, the emphasis of accounting education must go beyond professional knowledge (IES 2), to encompass skills (IES 3), values and ethics (IES 4) and competences (IES 6). IFAC introduced the term '*capabilities*' (IFAC, 2003 p12) to go beyond competence, this being the requirement to demonstrate the acquisition of these skills by performance. Capability refers to the attributes held by individuals that give them the potential to perform thus it encompasses but goes beyond the concept of competence to include knowledge, skills, values and ethics. For the purposes of this paper, the non-technical capabilities have been isolated from the complete list of capabilities and are detailed in the left hand column of Appendix 1.

At European level, eight leading chartered accountancy bodies embarked upon the Common Content Project in 2005. This sought to unify, as far as possible, the national professional entry level qualifications for admission to its member institutes. The project team developed a skills framework, also based upon the concept of capabilities which complies with, and builds on the IFAC standards. The non-technical elements of this skills framework are presented in the right hand column of Appendix 1.

The capability statements relevant to non-technical skills have been grouped under four broad headings in Appendix 1: cognitive skills, behavioural skills, integrative and multi-disciplinary skills, and ethics, values and attitudes. Each of these areas will now be discussed incorporating recent literature where appropriate.

Cognitive skills - IFAC terms this group of skills intellectual skills, whilst for the Common Content Project, these have been further subdivided to form two skill groups: cognitive analytical and cognitive appreciative. IFAC's intellectual skills are very broadly stated; an inevitable consequence of attempts to provide a generic solution for all 159 member institutes.

For the Common Content Project, with its sphere of influence being only chartered accountancy institutes, more prescription has been possible and adjectives such as 'proactive', 'creative' and 'critical' address the skills predictions in the literature for accountants of the future (Parker, 2001; Howieson, 2003; Mohamed and Lashine, 2003; Palmer et al, 2004).

Behavioural skills - the IFAC framework places a greater focus than the Common Content framework on management and the accountant as a future manager, thus reflecting the wider sphere of influence of IFAC. For instance, the IFAC capabilities include leadership and the ability to motivate and develop people as key organisational skills whereas neither of these capabilities is included in the Common Content framework. Similarly, working in teams is one of the IFAC capabilities whereas having an understanding of team dynamics is all that is required of the Common Content statements.   Thus, the focus of the Common Content framework appears to concentrate more on the development of self rather than the broader management of the inter-relationships involved in working life. However, in a recent survey of professional accountancy firms, '*the area of commonality expressed by the employers was the fact that people skills, such as building relationships, networking, supervision, team management, coaching, delegation, motivation and leadership did not receive sufficient credence in the training contract*' (Gammie et al., 2008 p6). Whilst both frameworks recognise the importance of self learning (initiative, influence and self learning – IFAC framework) and lifelong learning (applying the concept of lifelong learning – Common Content) the skill of learning to learn which Honey (1998) suggests is 'the ultimate life skill' (p28) is not explicitly mentioned. The ability to recognize and identify one's own learning needs, undertake the appropriate learning and then reflect on this in the working context would appear to be beyond the scope of both frameworks yet is considered so vital in the 'hypercomplexity' (Lahn and Jensen, 2006) of 21st Century professional life.

Integrative and multi-disciplinary skills - the ability to integrate both technical and non-technical skills is a key element of both frameworks. This presents particular challenges for assessment in finding appropriate ways of assessing both technical and non-technical skills simultaneously.

Both frameworks recognise the importance of presentation and communication skills suggesting that these skills must be part of an integrated assessment process.

Ethics, values and attitudes - the Common Content project further develops the IFAC standards, identifying two strands of ethics: business and professional. Professional ethics for the chartered bodies making up the Common Content group is particularly significant due to their public interest responsibilities and this is recognised with more detailed capability statements.

As the first attempt to prescribe capability statements to be applied across an extensive and diverse membership, IFAC faced a huge challenge. They responded by developing broad and generic capability statements which have subsequently provided a useful starting point for member bodies in developing their own non-technical educational provision, as evidenced by the more contextual Common Content framework. The IFAC capability framework should not therefore be regarded as the ultimate capability list for non-technical skills but rather a foundation from which a specific capability framework can be developed that is both relevant to the individual professional body and which reflects current educational thinking. Any framework of skill requirements must therefore be constantly monitored and updated in order to remain effective.

Theoretical frameworks of professional development

Knowledge has always been central to professional status (Montagna, 1974) and indeed the key source of growth in most developed countries (Elliott and Jacobsen, 2002). However, the technocratic (Bines, 1992) or technical-rational (Moore, 1970; Glazer, 1974) model of professional development upon which accounting was traditionally based (Mladenovic, 1998) assumed that this body of knowledge was fixed and constant and did not acknowledge the fact that rapid changes in business will stimulate corresponding rapid changes to the required knowledge base of a professional (Dochy, 2001). This model is no longer appropriate as the knowledge base is constantly shifting and expanding (Cheetham and Chivers, 2005) and up to

half of this knowledge is rendered obsolete within five years (Lysaght and Altschuld, 2000). Hence, it is vital that in addition to a thorough knowledge of technical rules (Bandy, 1994; Boyce, 2003; Diamond, 2005) the skills to continuously acquire new information are developed (AAA, 1986; Palmer et al., 2004; Poikela, 2004). Indeed, programmes of professional education can no longer be regarded as a means to an end, but instead, should signal the beginning of a life-long commitment to acquiring and developing knowledge (Eraut, 1993). This is further articulated by IFAC which stated that

> *'The maintenance of professional competence in the face of the increasing changes accountants encounter makes it essential that they develop and maintain an attitude of learning to learn. The education and experience of professional accountants should provide a foundation of knowledge, skills, professional values and attitudes that enables them to continue to learn and adapt to change throughout their professional lives.' (IFAC, 2003a, p7).*

Recent educational thinking has focused on the concept of the 'reflective practitioner' as developed by Schön (1983) as a way of developing and continually improving professional competence (Boud et al., 1985). This model aligns with the constructivist approach to learning (Biggs, 1996), as the learner has to take ownership of information and make sense of it in their own way. The requirement to undertake problem setting as a starting point to the learning process (Schön, 2002) recognizes the messy, confusing problems which are so much part of 21st century business life (Velayuthum and Perera, 1993). In order to thrive in this business environment, there is therefore a clear need for students to develop as 'reflective practitioners'. Whilst this reflective model has been extensively applied within a number of professional educational programmes (Papell and Skolnik, 1992; Kinsella, 2007), it has received somewhat less attention within the accounting profession (Velayuthum and Perera, 2008). However, Lucas and Tan (2007) writing from an accounting perspective highlight the importance of the development of a reflective capacity within accountants as they suggest that reflection is an essential element of professional judgement, ethical awareness and learning to learn (Lucas and Tan, 2007). Further Velayuthum and Perera (1993) offer a model based on the concept of the reflective practitioner which they consider within the context of professional accounting programmes globally. These sentiments are further supported by IFAC (2007) which highlights *"the importance of trainees and professional accountants developing habits of reflection and*

self-review in relation to their learning." (IFAC, 2007, p5). Gammie et al. (2008) further posit that the increasing importance of non-technical skills within the accountancy profession has further elevated the relevance of developing a reflective approach.

A related but more common concept within the accountancy environment is the competence approach to educational development which suggests that the development of specific competencies within the workplace best prepares aspiring professionals (Boritz and Carnaghan, 2002). The theory and practice underpinning the competency approach rest upon some of the core ideas of the American pragmatist philosopher, John Dewey. Dewey is acknowledged as one of the greatest educational philosophers of the 20th century and he had a particular interest in education which grounded theory in practice.

Dewey (1915) argued 'Grounding theory in practical reality ensures that it always embodies what is most fit for purpose and that when circumstances change the theory will change' (page 10). An approach advocated by IFAC stated

> '*Purely theoretical and knowledge-based education does not meet all the needs of employers and means have to be found to deliver and assess relevant competencies and capabilities where and when they are needed by the most appropriate means available'* (IFAC, 2003a, p124-125).

IFAC subsequently defined competency within the context of professional accountancy training as '*being able to perform a work role to a defined standard with reference to real working environments*' (IFAC, 2003b, p12) and thus provided a framework, through the publication of international accounting education standards, to identify technical requirements (IES 2), professional skills (IES3) and professional values, ethics and attitudes (IES4).

The education literature supports this competency approach by suggesting that many of the non-technical skills are more likely to be developed in the workplace (Garnet, 1997; Raelin, 2000; Lines and Gammie, 2004; Hancock et al, 2009; Jackling and DeLange, 2009).

Knowledge, as a matter of competence, develops through social participation. The social constructivist theories state that effective learning requires social interaction (Wenger,1998; Colley et al., 2003). This led Wenger (1998) to suggest that learning takes place within what he called 'communities of practice'. Participation is a shared activity and in the working environment there is both participation in the learning process and participation of practice. Wenger's idea of communities of practice has application to any learning situation (Wenger, 1998). Context is also relevant to the learning experience (Nespor 1994), again supporting the importance of a work-based training environment for the development of competences. The importance of context within accounting education was given recent support by Jones (2010), when examining cross disciplinary generic skills development. These ideas interrelate and support the notion of situated learning (Lave and Wenger 1991) and the need for learning to take place in a working environment. Subsequent observation within the workplace is then deemed to be better at measuring and predicting vocational skills than paper and pencil tests (Eraut, 1994; Wolf, 1995; Cheetham and Chivers, 2006). Hence work based assessment is more valid in the determination of competency to practice as a qualified accountant. However, very few of the professional bodies try to determine or assess competence in the workplace, with ICAS, ICANZ and ACCA arguably leading the field. In the majority of cases 'appropriate' practical experience is recognised if the candidate undertakes work in particular areas under the supervision of a qualified member, with no systematic approach to assessment of skills (Karreman, 2002).

Developing non-technical skills within an education programme can be achieved by stand alone learning interventions such as formal courses or workshops. The opportunity to remove themselves from their professional working environments and focus on self development has proved valuable to students within the medical profession (Brennan and Coles, 2003) although the question of whether some of these skills can effectively be taught outwith the context in which they will be used continues to incite debate with it being recognised that such programmes require meaningful content to add value and avoid being dismissed as teaching the obvious (Maudsley and Strivens, 2000).

The challenge is for educators to find the balance within both the learning tasks and the learning environments that best facilitate the required learning outcomes.

The importance of assessment

'Assessment is the single most powerful influence on learning in formal courses and if not designed well, can easily undermine the positive features of an important strategy in the repertoire of teaching and learning approaches' (Boud, 2001 p.67).

This quote highlights that if the assessment strategy is not sufficiently aligned with the desired outcomes of the educational process then this will result in 'washback' (Alderson and Wall, 1993) or 'backwash' (Biggs, 1995). This 'backwash' effect refers to the notion that testing or assessment, which is usually the final stage in a teaching and learning process, can in fact drive both teaching and learning (Cheng, 2000), a case of the 'tail wagging the dog' (Gibbs, 1992). Students consciously or subconsciously vary their attitudes and strategies of learning in order to cope with the assessment system (Harris and Bell, 1986). Indeed, Tang (1991) suggested that among all the contextual factors such as ability, preferred learning style, teaching environment, assessment has the most powerful effect on the learning process. This influence is further magnified when the stakes attached to the assessment outcome are higher (Harlen, 2007). [2]

Thus, within the professional accounting context, if non-technical skills are not effectively assessed, trainees will naturally focus on the technical elements causing a 'backwash' in the education process and ultimately the ineffective development of non-technical skills. This is of particular relevance for professional accountancy bodies that are criticised for their conservative approach (Brown and Glasner, 1999; IFAC, 2004), with an overemphasis on examining and passing technical assessments without due regard for the effective assessment

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[2] High stakes assessment is when the outcome of a summative assessment has the potential to alter the course of the candidate's life in some way.

of non-technical competencies (Velayutham and Perera 2008, 1993; French and Coppage, 2000; Stolowy, 2005).   If, on the other hand, the assessment tools adopted match and effectively assess the required capabilities of a newly qualified accountant then the students are effectively 'trapped' in a system from which they can only escape by demonstrating that all learning outcomes have been achieved (Herbert et al., 2009).

Work-based assessment

In order to capture the entire range of capabilities necessary in today's professional accountant, the professional bodies need to assess these desirable non-technical competencies in a non-traditional, flexible way, which is most likely to be based on performance measurement within a work place setting (Lines and Gammie, 2004).

However, the necessity to assess these more generic skills presents a challenge for professional accountancy bodies. It is far more complex assessing a candidate's competence in a non-technical area than the assessment of the ability to carry out technical tasks which can be effectively assessed by way of traditional paper based examination (Lines and Gammie, 2004; Hancock et al., 2009). The costs of collecting this work based performance evidence, as opposed to knowledge evidence gathered in an examination setting, can be costly and disruptive (Hyland, 1994; Ilot and Murphy, 1999; Boritz and Carnaghan, 2002). The fact that observations are by definition, unique, also makes reliability a major problem (Rowntree, 1987; Mansfield, 1989; Hyland, 1994; Messick, 1994; Johnson, 1995; Wolf, 1995; Stobart, 2008; Hancock et al, 2009). Any attempt to grade such observations, other than on a pass/fail basis or competent/not competent should be treated with caution due to the potential variability in mentor evaluation of competence (Hyland, 1994).

Another issue with direct observation as an assessment tool for the global accounting profession is the problem of variability, or lack of work experience. In some jurisdictions it is possible for accountants to be admitted to their respective member body without undertaking work experience in any or many of the technical areas identified by IFAC in IES 2 (IFAC, 2003). However, if an accountant is required to demonstrate competence across a wide range of skills and the workplace is the only environment in which the skills can be effectively developed and

assessed then professional bodies need to be more proactive in ensuring that all work experience is undertaken in an environment which can provide the relevant experience and assessment opportunity.

One method of ensuring that each trainee receives an appropriate level of work place experience is through the development of learning[3] or achievement[4] logs which are used to construct an individual's programme of learning or achievement (Brown and Knight, 1994; Gammie and Joyce, 2009). However, assessment of competency through the learning/achievement log route can be problematic. There is a tendency to develop long, detailed lists of competencies (Gonczi *et al*, 1990; Hyland, 1994; Wolf, 1995) which encourage a check off approach to competency rather than a more holistic evaluation (Boritz and Carnaghan, 2002). Hence they are not well suited to the assessment of professional work (Gonczi *et al*, 1990; Cheetham and Chivers, 2006) as there may be no indication of the quality of the work reported (Eraut, 1994). Indeed, a common feature of work based assessment is that very few students fail assessments in a workbased setting (Ilot and Murphy, 1999) which calls into question their validity as an assessment for competency within a professional context.

Notwithstanding these criticisms, whilst direct observation and assessment within the work place is bedevilled by reliability and even validity problems, supporters of work based assessment argue that this is the most authentic way to judge the ability to integrate the art, science and ethics of a profession (Beitler, 1999a; Ilott and Murphy, 1999).

Other methods of assessment

Case studies are a popular method of both teaching and assessing, particularly in a business and management setting (Shapiro, 1984; Boehrer, 1995; Maltby, 2001) because when concepts are taught in settings that are similar to real world contexts, learners are better able to apply them in future settings and situations (Larkin, 1989; Oxford, 1990; Svinicki, 1998). They

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[3] learning logs tend to record completion of appropriate work experience as opposed to indicating the quality of work produced
[4] achievement logs tend to set out prescribed competencies which must be achieved by the trainee accountant prior to admission to membership

also provide a powerful incentive for applying theory to practice (Campbell and Lewis, 1991; Velenchik, 1995, Albrecht and Sacks, 2000) and test a candidate's ability to search through their theoretical tool box to understand the problem posed and provide a solution (AAA, 1998), thus demonstrating the ability to adapt knowledge to new environments (Matthews and Candy, 1999; Lysaght and Altschuld, 2000; Raelin, 2000).

Case studies are also a valuable assessment tool for evaluating a candidates' inter-disciplinary ability. Hence this type of assessment can be used to move students up Blooms cognitive skills ladder from knowledge and understanding to analysis, synthesis and evaluation (Bloom, 1956) which addresses the intellectual skills development. Thus, case studies would appear to be educationally effective in the development and assessment of non-technical skills within aspiring professional accountants. There are costs, however, both in educational and resource terms (Carlson and Schodt, 1995). Cases are time consuming and expensive to develop, they are more difficult to assess as there is not usually one correct answer and if a student makes an incorrect judgement about the nature of the problem, the risks of failure may be greater than with a conventional computational type of question.

Communication skills are highly valued with an increasing emphasis being placed on this particular skill set by professional accountancy bodies throughout the world (AICPA, 1998a; Walsh, 1999; Jeans, 2002; Jackling and DeLange, 2009; Wells, 2009). However, whilst oral examinations are a good way of assessing communication skills, they are also a good way of testing a student's ability to problem-solve. Orals allow for follow-up questions and probing in a way denied to other forms of assessment. They also have the advantage of immediacy and the added advantage that it is difficult to cheat. Oral examinations are commonly used as part of the assessment strategy of professional accountancy bodies with 20 out of the 32 professional bodies listed in the FEE comparative study (FEE, 2002), utilising this method. However, orals are very time-consuming to stage as they are normally done on a one-to-one basis, therefore it can be an unsuitable assessment vehicle where large numbers of students are concerned.

Extended essays or thesis are not commonplace with professional bodies based in the UK but are more common within other European countries (FEE, 2002). Whilst these assignments are easy to construct and offer the scope to test some of the higher cognitive skills (AICPA, 1998b)

deemed fundamental in the assessment of professional accountants, their reliability is questionable (NASBA, 1998; AICPA, 1998b), especially if only one marker is involved. Increasing use of 'blind, double-marking' addresses some of the concerns expressed over this issue, but this adds cost and complexity.

Extended essays, case studies and oral examinations are assessment tools used by professional accountancy bodies across the world, particularly in the later stages of the assessment process (FEE, 2002). These instruments, have the potential for scoring highly in terms of educational effectiveness as they require demonstration of higher order skills and address many of the competencies required of a professional accountant (Lines and Gammie, 2004). However, they can be resource intensive, particularly where steps need to be taken to ensure an acceptable level of reliability (ibid). Therefore, professional bodies tend to adopt the assessment strategy of either requiring candidates to write a thesis which is defended by an oral, or sit a multidisciplinary case study, despite the different skills set that these assessment instruments may target.

Of greater concern, are those professional bodies which do not adopt either of these assessment strategies as there is likely to be an imbalance between the requisite skills to determine competency and the assessment of those skills. This deficiency is likely to be compounded by those bodies who also fail to assess the achievement of non-technical competency in the work-place.

Summary

Professional accountants are now required to develop and demonstrate a wide range of non-technical skills in order to discharge their duties in an effective manner and the IFAC capability framework should be regarded as a foundation from which individual professional bodies develop their own capability requirements.

The competence approach to professional development is widely supported in the educational literature. It is also recognised that communities of practice are central to learning. Recent

thinking has further developed the theory of the reflective practitioner as a way of continually improving professional competence and each of these related theoretical frameworks are of relevance to the development of non-technical skills.

The subsequent assessment of these skills is also of relevance as if the appropriate skills are not assessed then the education programme will not be constructively aligned and trainees and indeed educators may focus on the development of assessed skills to the detriment of those which have fallen outside of the assessment regime.

Method

An initial review of a variety of global professional training programmes was facilitated utilising the extensive comparative research undertaken by Karreman (2007). This research identified 32 professional bodies across common law and civil law countries, spanning both industrialised and transition/emerging economies. These 32 bodies were supplemented by an additional 3 bodies which were deemed to be of interest to non-technical skills development from previous work in this area (Gammie et al., 2008). Appendix 2 summarises the key aspects of these 35 professional training programmes of relevance to the development and assessment of non-technical skills.

An email questionnaire was then developed, designed to accommodate the variety of training programmes, with a view to furthering our knowledge about non-technical skills development and assessment within these various training programmes. The questionnaire is appended in Appendix 3. It was initially piloted with professional bodies that accommodated a variety of educational programmes:

- Non-graduate entry permissible
- Graduate entry or equivalent
- Professional training classes run internally by professional body
- Professional training classes run externally by other training provider

These two professional bodies were:

- ACCA - Non-graduate entry permissible and professional training classes run externally by other training provider
- ICA Australia - Graduate entry or equivalent and professional training classes run internally by professional body

These bodies were contacted using a generic email address from which an automatic response was received. This promised a reply within a week, however, nothing was received. The questionnaires were therefore resent using specific email addresses to the individuals within these bodies responsible for education. Responses were duly received in May 2009 and minor clarifying amendments were made to the questionnaire.

As a result of the generic email non-response it was decided to seek personal contact details for the professional bodies. Unfortunately a mailing list of educational directors was not available from IFAC, therefore it was necessary to ascertain the relevant email listings through other means. The research team identified 25 direct contact email addresses through their own network of educational contacts. The remaining 10 professional bodies were contacted via generic email addresses although in 5 cases the request was made for the attention of a specific person.

In view of the adhoc nature of acquiring email addresses the questionnaires were in effect sent out in batches as addresses were identified. Two bodies, ICAEW and AICPA, requested that their responses to the questionnaire be gathered via a telephone interview rather than completion of the questionnaire. Despite two reminders being sent out to all non-respondents only 16 bodies responded which equated to a response rate of 45.7% which although impressive for an email questionnaire was disappointing for the study. Unfortunately some of the bodies which are known to the research team to be pro-active in the design of their educational programmes did not respond, thus it was decided to undertake desk-top reviews of these particular bodies. The two professional bodies selected from the non–replies for this purpose were CIMA and CICA. The research team therefore had data from 18 professional accountancy bodies.

As the aim of this study was to search for good practice in the development and assessment of non-technical skills in professional accountancy programmes and not provide a global overview of accountancy education practice within this area, an overall analysis of the questionnaire responses has not been provided. However, the data provided in the questionnaire responses provided a platform from which further investigation could be undertaken. This was done via a review of additional material provided by way of an addendum to the completed questionnaires, reviewing relevant educational documents on Institute's websites as directed by questionnaire respondents and seeking additional clarification and detail by way of email as necessary. The results of the searching for good practice review are provided by way of themes.

Results

<u>When does the skills development commence</u>

Some of the UK bodies (for example, ICAEW, CIPFA, ICAS) do not require individuals to hold an accounting related degree in order to be admitted to a training contract. Graduates who enter professional accountancy training via this route are then required to sit an additional layer of examinations set by the relevant institute in order to equate their technical knowledge with that of the graduates who have progressed from accounting related degrees. The relevant graduates are exempt from this first introductory level of training after successful accreditation of their undergraduate programmes by the individual professional body.

Whilst accreditation appears to consider carefully the technical coverage, accreditation of non-technical skills development and assessment is not common place. This lack of accreditation of non-technical skills, however, is not an issue for those bodies which do not rely on any non-technical skills development prior to training contract entry irrespective of level as all the technical skills development and assessment will only commence after all graduates irrespective of discipline have entered into their training contracts.

In some jurisdictions there is an expectation that non-technical skills development will commence at university and this is irrespective of degree discipline. In the UK, for example, the Quality Assurance Agency (QAA, 2007) articulate generic benchmarking statements for all accounting related degrees in the UK[5]. Indeed the QAA regulate all subject areas in the UK[6].

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[5] On completion of a degree programme covered by the accounting benchmark statement, a student should have acquired the following abilities and skills: (1) the capacity for the critical evaluation of arguments and evidence, (2) the ability to analyse and draw reasoned conclusions concerning structured and, to a more limited extent, unstructured problems from a given set of data and from data which must be acquired by the student, (3) the ability to locate, extract and analyse data from multiple sources, including the acknowledgement and referencing of sources, (4) capacities for independent and self-managed learning, (5) numeracy skills, including the ability to manipulate financial and other numerical data and to appreciate statistical concepts at an appropriate level, (6) skills in the use of communications and information technology in acquiring, analysing and communicating information (currently these skills include the use of spreadsheets, word processing software, online databases), (7) communication skills including the ability to present quantitative and qualitative information, together with analysis, argument and commentary, in a form appropriate to the intended audience, (7) normally, an ability to work in groups, and other interpersonal skills, including oral as well as written presentation skills (QAA, 2007).

Hence all degree disciplines should incorporate some element of generic skills development (QAA, 2007). This potentially negates the need for professional bodies to accredit non-technical skills as the assumption is made that this development will have been addressed as part of the undergraduate programme that each individual has followed. However, ICAEW highlighted the 'differential skills development in universities' thus rendering it necessary in their opinion 'to start with a level playing field and only attempt to develop and assess non-technical skills after all the graduates have entered into the professional educational process' (ICAEW telephone interview). Hence, non-technical skills development and assessment is only apparent in the intermediate and final stages of the ICAEW qualification which is undertaken by all graduates irrespective of discipline.

However, for those bodies which do not accredit non-technical skills development for relevant degree holders and yet commence non-technical skills development and assessment at the introductory stage (prior to the relevant graduates joining the educational process) there is a potential mismatch of non-technical skills development between relevant and non-relevant graduates as demonstrated in Diagram 1 overleaf.

Therefore professional bodies need to exercise caution in introducing non-technical skills development into the early stages of their programmes if it is possible for some of their intake to be exempt from this level, and this is particularly the case where there is a variation of university practice in the development of such skills.

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[6] Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated (QAA, 2007).

Diagram 1 - The potential mismatch of non-technical skills development in the early stages

Intro - level	Intermediate - level	Final - level

Non-relevant → Non-technical skill development → Non-technical skill development → Non-technical skill development

Relevant → Non-technical skill development
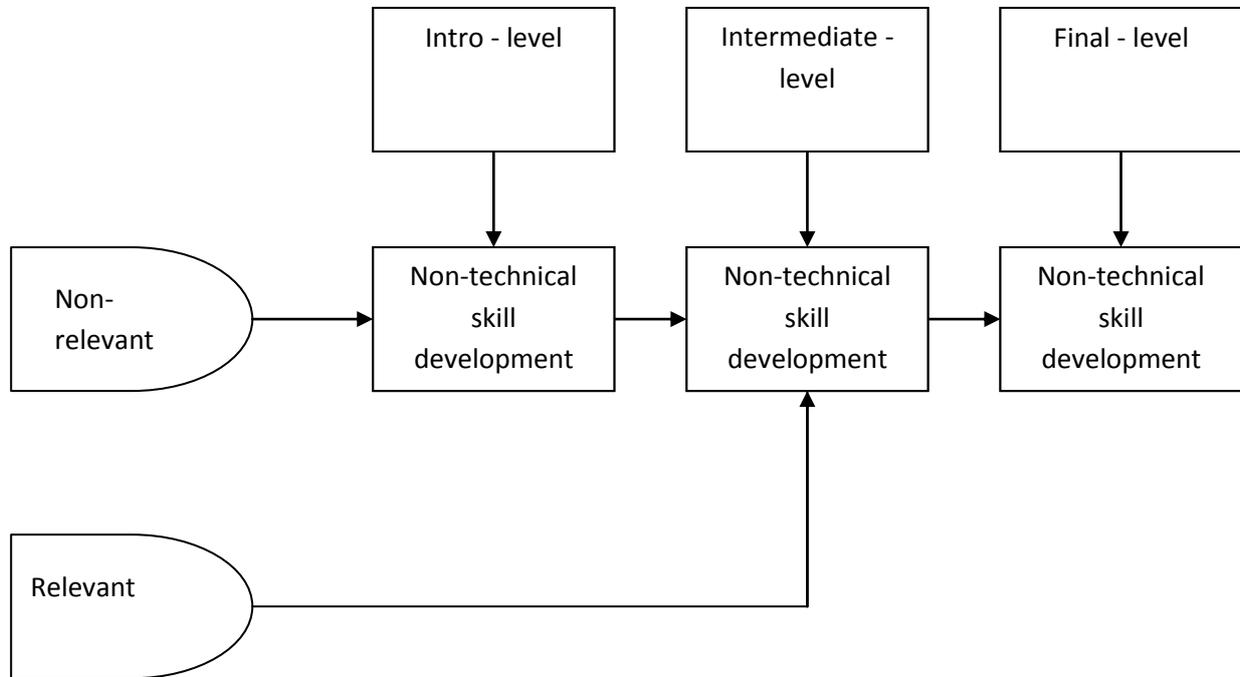
Other professional bodies only accept relevant accounting graduates onto their training programmes and hence are in a position to regulate early non-technical skills development through the undergraduate degree as part of the accreditation process. The Institutes in this case tend not to be concerned with the educational input but focus more on the educational output at the end of the accounting degree. Indeed, the New Zealand Institute of Chartered Accountants (NZICA) is unusual in its more input based approach requiring not only coverage of the compulsory topics but also a minimum of 15% of liberal or general study (NZICA, 2009). Other Institutes, for example, the Royal NIVRA recognises that Dutch universities may differ in their approach to skills development in the curricula as individual universities will have 'different educational philosophies and preferred didactical concepts/teaching methods' (extract from Royal NIVRA questionnaire response). However, in order for universities to meet the accreditation requirements of the Royal NIVRA it is necessary for universities to demonstrate that their programmes meet the '(so called) Dublin descriptors' (ibid). These key indicators require a demonstration of communication/presentation skills, cognitive skills and managerial skills which include behavioural aspects and attitude. Some universities therefore provide specific courses in communication/social skills and business ethics, whereas other universities

provide an integrated approach with respect to the development of professional skills and knowledge.

Another institute adopting an output based educational system is the South African Institute of Chartered Accountants (SAICA) which has recently introduced a new competency framework (this is discussed further in the section on competency frameworks) which is due to become operational on a roll out basis from 2010. The current education system expects each academic programme to include four core accounting courses and additional 'supportive' courses, the syllabi of which are prescribed by SAICA. The introduction of a competency framework fundamentally changes the approach from that of an input based approach to that of an output based system whereby the framework now identifies which competencies should be acquired during the educational programme and to what level the competency should be developed. Specific courses are no longer prescribed and each university is now tasked with designing courses which enable the acquisition, at the stipulated proficiency level, of the competencies identified.

Whilst it is recognised that many of the non-technical skills competencies such as communication, problem solving, team work and time management, will be addressed across the curriculum, providers of the academic programme are expected to address all appropriate professional skills. SAICA, however, do not define what is appropriate but rather leave each university to review and decide for themselves what they believe is appropriate. Universities are then required to demonstrate how these skills are addressed and provide a full explanation for any exclusions.

Whilst SAICA suggest that students can gain experience in executing tasks by undertaking contextualized questions and mini case studies, they do recognise that some professional skills may be better addressed in the training programme. SAICA, therefore, expect to see some skills receiving comparatively less attention in the academic programme, although this is not made explicitly clear in their documentation.

It would appear therefore that SAICA has moved the focus of responsibility for curriculum design back to the universities as this new approach recognises the right of providers to place emphasis in their programmes where they consider appropriate, provided that the competencies identified are properly addressed. The role of the professional body will then be to ensure that the education provided by each university does in fact meet the competencies as

identified by SAICA and hence prepares students for their examinations and ultimate membership.

In Australia, two of the professional bodies, namely the Institute of Chartered Accountants in Australia and CPA Australia have issued a combined document outlining their professional accreditation guidelines for higher education programmes (ICAA and CPAA, 2009). As part of the basis of accreditation, universities are evaluated on the extent to which their teaching methodologies facilitate the development of both technical knowledge and generic skills. Within the programme content requirements it is clearly stated that the two bodies '*strongly support the view that an acceptable accounting program should be aimed at enhancing the technical, intellectual and personal capacities of graduates…..Emphasis should be placed on the development of critical thinking, analytical reasoning, problem-solving skills, creativity and research techniques, that together support the ability for lifelong learning. Inter-personal skills, leadership, ethical values, the ability to work effectively in groups, and both oral and written communication skills are regarded as essential…..Conceptual issues should be appropriately related to practical applications in an intellectually challenging manner, without undue emphasis on formal technical procedures*' (ICAA and CPAA, 2009, p3). Universities who submit for accreditation are then required to include a discussion within their documentation of how these specific skills are assessed within the curriculum areas[7].

The joint ICAA and CPAA document is also proactive in that it provides guidance to the universities as to the type of skills that should be developed. The document also recommends that generic skills should be developed in an integrated fashion throughout the various courses taught as opposed to being treated separately as a stand alone course. The document

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[7] Whilst ICAA have recently expanded their intake to include non-relevant graduates, these trainees can only enter into a training contract having undertaken one of the following routes:

1. Completion of an accredited post graduate conversion course at university – these conversion courses are subject to the same accreditation process as undergraduate accounting degrees. This pathway accounts for the majority of non-accounting graduates who enter the program (well over 95%)

2. Completion of the Institute's Non-accounting Entrance Exam – this exam pathway is limited to non-accounting degree holders who are already in relevant accounting employment and who have the support of their CA employer/mentor to undertake this pathway. This option requires non-accounting graduates to have significant work experience in the accounting field and to hold a qualification at least equivalent to an Australian Bachelors degree, both of which provide assurance that they have developed an acceptable level of non-technical skill.

Trainees from non-relevant backgrounds will therefore have either been exposed to a similar regime of non-technical skills development and assessment at university as their relevant counterparts or will have acquired non-technical skills during their work experience.

provides links to academic work on the subject of skills development and also provides examples of activities that are useful for developing generic skills such as case studies, small group discussions, debates, problem solving tasks and simulated decision-making in complex and ambiguous situations.

Discussion

Non-technical skills, akin to their technical counterparts, develop over time and hence it is important to begin this development at an early stage in the educational process. The development of non-technical skills is an increasing feature of university education irrespective of discipline, however, variations of practice within the university sector result in differential skills development. Where professional bodies allow students access to their programme from differential entry routes care needs to be exercised that students have a similar level of non-technical skills acquisition by the time they join together for the rest of their professional accountancy training.

Professional bodies which rely on universities for part or all of their taught educational programmes, need to regulate, not necessarily what the universities do within their individual programmes but, what they produce from these programmes. This is best achieved by an output based review system whereby universities should be required to demonstrate, as part of their accreditation requirements, not only how they have developed non-technical skills in their students but what technical skills have been developed and to what level of competence. Thus, the assessment of non-technical skills within the programme is also of relevance in the accreditation system.

By adopting an output based accreditation system, universities will be afforded the freedom to develop and assess, within the confines of their own teaching philosophy, the appropriate non-technical skills. However, the professional bodies should provide guidance as to the requisite skills they require and to what level. Thus, the professional bodies should clearly articulate, the role this particular aspect of the education process has to play in the creation of a qualified accountant.

Competency frameworks

IFAC (2003) and Common Content (2005) have developed global capability frameworks with a view to instilling some consistency to professional education practice. These frameworks emphasise that professional accountants must demonstrate competence across a wide range of skills and member bodies of the respective organisations are required to ensure that their educational programmes develop within students the requisite competencies prior to admission to membership. Whilst these frameworks, by their very nature are relatively generic as they need to transcend a wide range of professional accountancy bodies, they provide valuable guidance to member bodies. Some professional bodies have subsequently adopted this framework approach and have developed their own dedicated frameworks which specifically target the requisite competencies that a member should display. Some examples of what have been developed are outlined below.

The Institute of Chartered Accountants in Australia (ICAA) competency framework maps the full range of knowledge, skills and values expected of a Chartered Accountant at the point to admission to membership. The framework has been structured to match the IFAC Education standards. The framework is divided into six areas of competency (1) accounting and finance related areas[8], (2) organisational and business areas, (3) information technology, (4) professional skills, (5) professional values, ethics and attitudes, and (6) general education[9]. Within each of these sections, the framework identifies the competencies to be developed, highlights where they should be developed and indicates the level of development expected within each context. The framework recognises that competency can be developed within a variety of contexts, namely; tertiary education where this is appropriate[10], the CA program and practical experience. The framework also articulates the different levels of competency required within each context, thereby demonstrating how an individual should progress from knowledge and comprehension (level 1) to application and analysis (level 2) to synthesis, evaluation and performance (level 3). A range of examples are located in Table 1.

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[8] This area is further divided into six subsections thus reflecting the weight that is given to this particular section in the creation of a chartered accountant.
[9] Whilst the framework does not list any competencies within this particular section, general education is mentioned as it is recognised by the ICAA that competency in this non-vocational part of education is of relevance to a professional person and the overall package of a competent accountant.
[10] Candidates who enter the CA program from non-accounting degrees are obviously not expected to demonstrate the finance and accounting areas in a tertiary context.

Table 1 - Excerpt from ICAA competency framework

Knowledge base/competency	Level of proficiency		
	Tertiary	CA program	Practical experience
Identify the circumstances in which entities are required to present consolidated financial statements	Knowledge and comprehension	Application and analysis	Synthesis, evaluation and performance
Interpret situations and resolve conflict	Knowledge and comprehension	Application and analysis	Application and analysis
Solve problems and construct analysis	Application and analysis	Synthesis, evaluation and performance	Synthesis, evaluation and performance

As the framework is articulated in terms of context and level, it serves to inform each of the learning contexts as to their role in the creation of a qualified chartered accountant. Thus there is a clear emphasis on the integration of classroom-based and work-based learning.

Students are assessed at the tertiary level and CA program level by way of examination or assignment. For the practical experience element, students are evaluated on their ability to successfully complete a task or undertake a role to the level of the competency required.

The South African Institute of Chartered Accountants (SAICA) have also developed a competency framework which provides a high level description of competencies which a South African CA should posses on entry to the profession. The framework provides the base upon which programmes of education, training and assessment are developed (SAICA, 2009). The framework is being rolled out from 2010 with the first cohort of students sitting the Part 1 examination in 2013. The rolling out time is to allow the universities, who provide the initial education, time to adapt their programmes to satisfy the new requirements. The impetus for change by SAICA which drove the development of the competency framework arose due to the

realisation that it is the identification of high level competencies which a qualified accountant should display at the point of entry to membership which will inform the education, assessment and training programmes and enable appropriate content, emphasis and teaching and learning strategies to be developed (ibid). The framework highlights two underlying fundamental areas, namely, that of leadership and the competencies which will foster life-long learning. The competencies as highlighted in the framework are therefore designed around a 'leader with a very specific background in professional accountancy' and include pervasive qualities and skills (namely: ethics and professionalism, professional attributes and personal skills) which are fully integrated with specific competencies in the areas of strategy, risk management and governance, financial management, auditing and assurance, accounting and external reporting, taxation and management decision making and control (ibid).

Each of the pervasive qualities and skills are further broken down into more detailed competencies. For example, personal attributes is broken down into 10 more detailed areas, one of which is 'demonstrates leadership and initiative' and then each of these areas is further broken down, as identified in the following table:

Table 2 - Example of a SAICA pervasive competency

IB	Personal Attributes
IB-2	Demonstrates leadership and initiative
	- For each assignment, identifies milestones that measure whether work is being performed on time and within budget - Communicates with internal and external clients to assure them that milestones are being met and objectives are being achieved - Identifies opportunities, issues and possible improvements and makes suggestions or recommendations to the supervisor or internal and external clients as appropriate - Challenges assumptions - Contributes and leads by action and example

Source: SAICA (2009)

The framework is designed around the premise that competency can be viewed as the ability to execute a task in 'the real world' and that in order to acquire a competency a candidate must acquire knowledge, develop understanding and have experience of executing tasks (practical application). The Framework is supported by detailed guidance for both the academic

programme[11] and the training programme[12] where the requisite proficiency levels are articulated for the specific competencies. For each of the specific (technical) competencies, the first building block of competency (knowledge and understanding) is articulated as one of three levels (level 1, basic; level 2, intermediate; level 3, advanced) and thereafter as a competency level (thus incorporating the practical application) ranging from Level A (an awareness) through Level I (initiates the task) to Level X (completes the task) (SAICA, 2009).

There is, however, no detailed guidance for the providers of the academic programme in relation to the pervasive qualities and skills. Thus there is less clarity in the SAICA documentation to aid the providers of the academic programme in respect of these non-technical competencies. However, by the point of entry to the profession (after completing all education, professional, training and assessment programmes), CA candidates are expected to demonstrate the highest level of proficiency for all the pervasive qualities and skills. Therefore, candidates must demonstrate Level X for the three pervasive competency areas of ethics and professionalism, professional attributes and personal skills. SAICA does not provide any additional guidance via the provision of milestones of where a trainee should be on the competence continuum during the training contract other than to state that trainees must have reached Level X in order to be granted admission to the Institute. SAICA defend this position on the basis that trainees can progress through their training in a variety of different ways and therefore it would be difficult to provide meaningful targets.

Whilst ICAEW has not developed a competency framework *per se*, ICAEW has tried to integrate the different aspects of the training by linking the work experience to the technical knowledge gained in the classroom and highlighting that work experience is an essential component for examination preparation and vice versa (ICAEW, 2009). ICAEW demonstrates the integrative nature of the educational process in developing both the technical knowledge and the skills base in the following diagram.

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[11] Acquired through accredited academic education programmes delivered by universities (a three-year undergraduate degree followed by a one-year postgraduate programme known by SAICA as the Certificate in the Theory of Accountancy (CTA))
[12] Acquired through the work experience aspect of the training programme

Diagram 2 - ACA Skills Development Grid
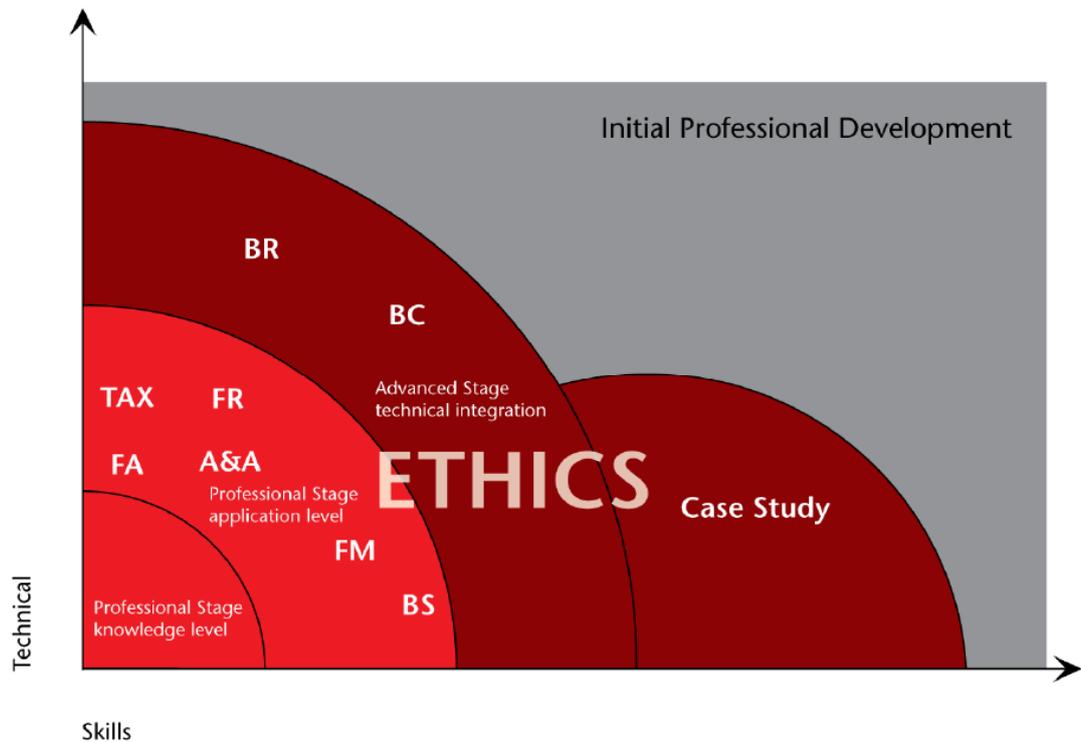
Source: ICAEW (2009)

The diagram indicates how the students start with the Professional Stage, commencing with the core technical knowledge and skills level before moving onto the practical application of this technical knowledge and skills. Communication and articulation skills also start to be examined at this application module stage. Students then move onto the Advanced Stage, by undertaking modules which assess technical integration, communication and articulation skills applied in complex scenarios, before completing their examinations with a multidisciplinary case study which assesses analytical, evaluative, integration skills, communication and articulation skills applied in scenarios of major complexity (ICAEW, 2009). All of this development is undertaken within the context of three years work experience. This work experience is subsequently assessed through the framework of an initial professional development programme - this is discussed further in the section on assessed work experience below. However, in addition, ICAEW further articulates the link between work experience and each of their individual examination papers through their skills development grids which have been developed for each subject area from the professional stage application level upwards.

The examination of non-technical skills is further discussed in the section on assessment within the professional education system.

Whilst ICAA and SAICA have developed an overarching competency framework that spans the whole qualification, Chartered Accountants Ireland[13] (CAI), has developed individual frameworks which focus on a particular aspect of the qualification, but collectively address all the competencies required for admission to membership. These individual frameworks were introduced by CAI following a major educational review undertaken from 2005 to 2007, and cover the CA Proficiency level 1 (CAP1) (introduced in 2007/08) (CAI, 2009a), the CA Proficiency level 2 (CAP2) (introduced in 2008/09) (CAI, 2009b) and the Final Admitting Examination (FAE) (introduced in 2009/2010) (CAI, 2009c). By rolling out these competency statements ICAI aims, amongst others, to (1) provide students with transferable skills to perform in an ever-changing business environment (2) empower students to take responsibility for their own learning and to create an environment that encourages them to develop critical and analytical skills (3) afford a greater level of integration within the educational programme and recognise the transfer of skills acquired during work-based training and (4) provide a greater focus on business management and ethical issues (CIA, 2009c). In addition CAI also requires students to successfully complete an online CA diary (CIA, 2009d) (further discussed in section on work-based assessment) in which students are required to demonstrate their achievement of a variety of functional competencies, core professional values and personal and interpersonal skills.

Thus the CAI recognise that the acquisition and demonstration of competencies can be met in different ways, through academic study, work experience and professional education. Hence each of these elements is integrated during the training period to allow the trainee to acquire, develop and demonstrate the required level of specified competencies required for admission to membership, as indicated in the diagram below.

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[13] In September 2009 the Institute of Chartered Accountants in Ireland changed it name to Chartered Accountants Ireland

Diagram 3 - The specified CAI competencies

Source: CAI (2009c)

The competencies to be assessed have been grouped into four pillars. The first three pillars are assessed predominantly during the initial two years of the Professional Education Programme. The fourth pillar relies heavily on the mandatory training experience, which is recorded in the Online CA Diary. By the final year of the education programme, the emphasis moves to a more integrated approach, culminating in the FAE, as demonstrated in the following diagram.

Diagram 4 - The CAI training structure
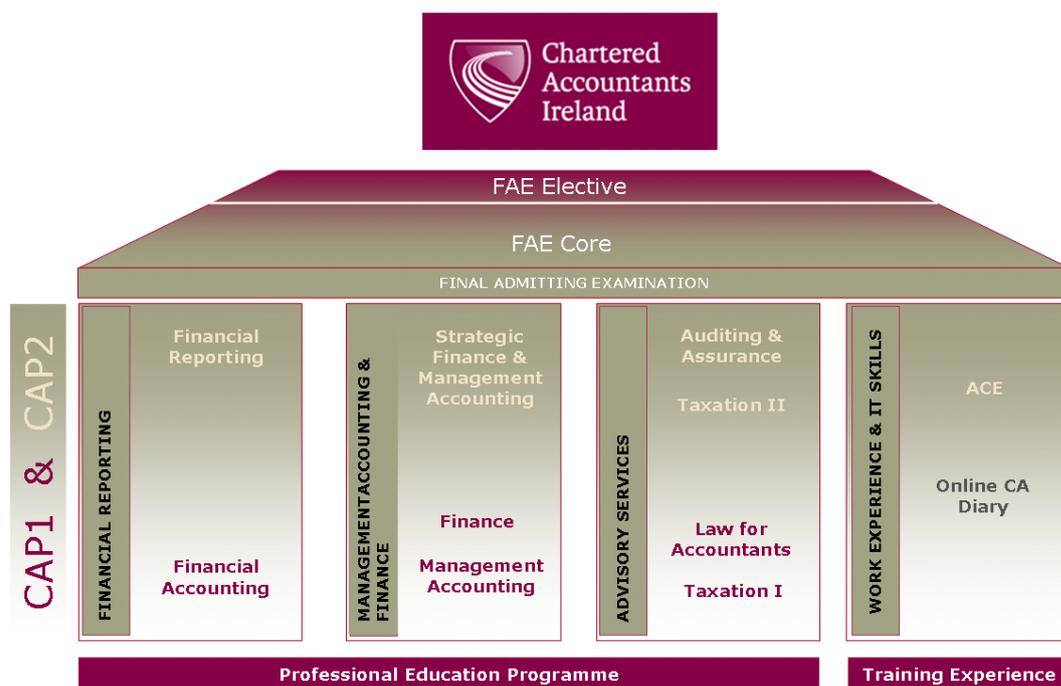
Source: CAI (2009c)

The competency statements, however, actually focus on the first three pillars and the ceiling sitting on top of the four pillars, namely the FAE core and electives. Hence this is further discussed under the section which deals with non-technical assessment within the examination system.

Other bodies have developed frameworks which only address some aspects of the educational process. For example, the Canadian Institute of Chartered Accountants (CICA) has developed a framework restricted to the taught element of the educational process. CICA has developed a competency map which provides an overview of the specific professional competencies and proficiency levels that CA candidates are expected to demonstrate on the profession's Uniform Evaluation (the UFE) which is the simulation based final admitting examination (CICA, 2009). Therefore competencies that are developed and better assessed through the professional education program and/or the work experience components, for example oral presentations, are not included (ibid). Thus the CICA competency map is essentially restricted to one component of CA education, namely the final admitting examination and thus will be further discussed in the section which deals with the assessment of non-technical skills within the examination system.

The New Zealand Institute of Chartered Accountants (NZICA) has also developed what it refers to as a competency framework. This framework, however, is in contrast restricted to the development and assessment of competence within the workplace and hence further discussion of their framework is contained later in the section that is concerned with assessment of work-based learning.

Discussion

As the ultimate responsibility lies with the professional body whether to admit an individual for membership or not, professional bodies must be able to convey what capability and to what level is required for admission. Whilst capability frameworks have been developed by both IFAC and Common Content, these frameworks, particularly those developed by IFAC, are by their nature generic as they cater for a wide variety of member bodies. Some professional bodies have subsequently adopted this framework approach and have developed their own dedicated frameworks which specifically address the requisite competencies required to be displayed prior to admission to membership. Some bodies have developed frameworks which

cover individual aspects of the educational process, such as the taught element assessed by the final admitting examination (CICA, 2009) or the work place experience (NZICA, 2009). Other bodies, such as the CAI, have developed individual frameworks which focus on a particular aspect of the qualification but which collectively address all the competencies required for admission to membership. Some bodies, such as ICAA and SAICA have developed overarching frameworks which span the whole qualification highlighting, in the case of the ICAA, the role each aspect of the educational provision plays in the development and achievement of competence during the training contract. As the ICAA framework also articulates the progression from a base level of knowledge and understanding through to synthesis, evaluation and performance, students should be clearly aware not only of where they are likely to develop the competence but the level of competence that they will be required to display within each area.

These overarching frameworks emphasise the integrated nature of the various strands of the educational process. This 'constructive alignment' is fundamental for the effective development of an individual (Biggs, 1996) through their journey to becoming a professional accountant (Diamond, 2005; Jervis and Jervis, 2005). This type of approach emphasises that learning takes place within a variety of environments and highlights the importance of work experience in the creation of a professionally qualified accountant (inter alia, IFAC, 2003a; Lines and Gammie, 2004: Hancock et al., 2009; Jackling and De Lange, 2009).

By developing competency frameworks, professional accountancy bodies provide a clear understanding of what is required by the end of the training contract. Frameworks also provide a uniform measure of a learner's success in achieving the outcomes of a training contract (ICAA, 2008). In addition, where the framework identifies exactly where and to what level each competency should be developed, the framework provides a uniform benchmark for assessing learner progress during the course (ibid).

Non-technical assessment within the examination system

The educational literature highlights the importance of assessment to the overall learning process (Boud, 2001) and stresses the 'backwash effect' of assessment for both teaching and learning (Harris and Bell, 1986; Tang, 1991; Gibbs, 1992; Cheng, 2000). As professional

accountancy bodies have been at the centre of much criticism for over-emphasisng technical assessment (Brown and Glasner, 1999, French and Coppage, 2000; IFAC, 2004; Stolowy, 2005) the assessment of non-technical skills should play a crucial role in the development of these skills.

Whilst most of the professional bodies have some element of non-technical assessment within the examination system, there is considerable variation of practice within the profession. Some of the bodies appear to focus on the final admitting examination for non-technical assessment within the examination system, whereas other bodies appear to introduce the assessment of non-technical skills at an earlier stage in the examination system.

For example, students in the Netherland wishing to qualify with the Royal NIVRA are exposed to the assessment of non-technical skills during their training period prior to their final admitting assessments. In the Netherlands students undertake the complete theoretical syllabus at one of seven listed universities where they are exposed to oral examinations. There are three core examinations, namely Financial Auditing, AIS/Internal Controls and External Reporting. Students, irrespective of university, will sit the same Financial Auditing paper which contains a multidisciplinary case study and also incorporates an oral examination. The other core subjects are also assessed by a combination of oral and written examinations but each university can design its own assessment strategy as long as the learning outcomes[14] set by the professional body are met. Introducing formal oral assessment highlights to students the importance of oral communication to the battery of skills that a professional accountant must possess. Introducing this type of assessment during the programme also prepares students for their final assessment which takes place at end of their practical work-experience. This is further discussed in the section on the assessment of work- experience.

ICAEW, for each of the professional stage application, advanced stage technical integration and case study has developed skills development grids (ICAEW, 2009). Thus ICAEW are

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[14] Unfortunately these learning outcomes are only available in Dutch and therefore it has not been possible to outline some examples

introducing non-technical skills assessment from the stage at which all graduates irrespective of discipline sit the examinations[15]. These grids list the learning outcomes as specified in the syllabus, list the assessed skills and highlight how these skills are assessed. This is further sub-categorised into the following four categories (1) assimilating and using information (2) structuring problems and solutions (3) applying judgement (4) drawing conclusions and making recommendations (ibid).

For illustration purposes, the following is an extract from the professional stage Taxation skills development grid.

Table 3 - Extract from ICAEW skills development grid

Taxation		
Learning outcomes	Assessed skills	How skills are assessed
Assimilating and using information		
Describe when capital gains tax reliefs apply Explain the use of capital losses Explain the relevance of the distinction between capital and revenue………………….	Reading and understanding subject matter Accessing, evaluating and managing information provided in a few defines sources Operating to a brief in structures situations	Questions will contain both structures and unstructured detail that candidates have to read, assimilate and understand. Requirements may include explaining the implications of proposed transactions. This may include: >written description of tax treatments…………………….

Source: ICAEW (2009)

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[15] Students from accountancy related degrees are likely to be exempt from the first stage of the examinations (Professional stage knowledge level).

What these grids achieve is to contextualise the syllabus content into a skills base thus highlighting to students the importance of non-technical skills development. Bearing in mind the backwash effect of assessment this is a powerful tool as it will encourage the students to consider their technical knowledge within a framework of more generic skills.

ICAEW also allow students in their final three papers (Business Reporting, Business Change and the multi-disciplinary Case Study) to take any written or printed material into the examination room (ICAEW Advanced Stage Syllabus 2009). Thus they are moving away from the requirement for students to remember vast quantities of information and regurgitate technical knowledge and concentrating far more on the requirement for a more applied understanding and application. By examining the Business Reporting and Business Change modules through structured and guided business scenario questions and subsequently the Case Study via a system of advanced information supplemented in the examination itself with 'impact information' candidates are assessed on their skills development.

Another body to introduce non-technical assessment earlier into their programme is the CAI. The CAI, following their 2005 to 2007 education review, as discussed previously in the section on competency frameworks, developed three competency statements, each specifically designed for their three levels of examination, namely, CAP 1, CAP2, and FAE. Each framework highlights the overall objective of individual papers, the learning outcomes, the specific functional competencies to be achieved, and the requisite levels required[16] for each paper at CAP1[17], CAP2[18], FAE core and the FAE electives. According to CAI (2009a) 'At CAP1 and CAP2 levels, the main focus is on the acquisition of critical comprehension and skill in the application of core areas within the subjects. Candidates will be expected to build on their

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[16] There are three levels of competency, understanding, application and integration. Understanding is defined as a comprehension of the fundamental concepts of the topic and an awareness of their impact in resolving problems. This does not preclude simple calculation, if appropriate. Application is defined as a comprehension of the fundamental concepts of the topic and the ability to bring that comprehension to bear in resolving problems where data is provided in a structured form. Integration is defined as a detailed comprehension of core concepts and principles and the capability to apply this comprehension along with professional judgement to the resolution of problems both in an intra and inter-disciplinary context.

[17] There are five papers at CAP1, namely; Finance, Management Accounting, Financial Accounting, Law for Accountants, and Taxation (CAI, 2009a)

[18] There are four papers at CAP2, namely; Audit and Assurance, Strategic Finance and management Accounting, Financial Reporting and Taxation 11 (CAI, 2009b)

subject knowledge from stage to stage. They are also expected to have an appreciation of the interconnections between different areas of the competency statement. Therefore, students should expect to be examined on more advanced aspects of topics covered in earlier papers in the same subject…..The objective of the FAE is to assess candidates' total competency. This completes the qualification process and marks the start of a career as a Chartered Accountant - a career of life-long learning' (CICA, 2009, p7/8). Thus, the competency statement for each of the earlier levels, CAP1 and 2 are very much technically orientated whereas the competency statement for FAE encompasses more non-technical areas.

However, one of the key features of the new educational process developed by CAI, was to introduce some limited continuous assessment in recognition of the fact that certain skills are better assessed outside the traditional end-of-year examination. This continuous assessment takes a variety of forms including; a computer based double entry book-keeping test (contributes 20% of the Financial Accounting CAP1 assessment), an assignment on the completion of tax forms (contributes 10% of the Taxation CAP1 assessment), a practical audit assignment (contributes 15% of the Audit and Assurance CAP2 assessment) and an assignment based on some pre-seen material and some personal research (contributes 15% of the Strategic Finance and Management Accounting CAP2 assessment).

All examinations at the CA Proficiency 2 level now incorporate a compulsory case study element and with the exception of Taxation are undertaken on a full-open book basis. Thus, CAI in a similar fashion to ICAEW have moved away from requiring students to retain vast quantities of knowledge at the higher levels of examination and hence can concentrate on assessing the application of this knowledge within different contexts. However, the CAI in contrast to ICAEW has introduced this open-book concept at the middle stage of the qualification as opposed to restricting this practice to the final admitting level of examination. By introducing case studies at the middle CAP2 stage, CAI are developing the higher order and non-technical skills at an earlier stage and providing students with a developmental opportunity prior to experiencing case studies for the first time at the final admitting stage.

The final admitting stage of examinations within CAI is split into core and electives. The FAE core comprises two compulsory papers, core comprehensive and core simulations, both of

which cover six weighted module areas, namely; audit (10-15%), business leadership (20-25%), tax (10-15%), finance (10-15%), information management (10-15%) and performance measurement (20-25%). The comprehensive paper has one four hour case study. The simulations paper consists of three shorter case studies to be completed in four hours. Students are required to choose one FAE elective from the following range; (1) Auditing and Assurance, (2) Advanced Performance Management, (3 & 4) Taxation (2 variants). Each elective is assessed by way of a four hour simulations style paper (i.e. three case studies to be completed within four hours). All of the cases are built around key issues which require students to combine their technical knowledge, general skills and business acumen. Students are not provided with a separate 'requirements' section in the case studies as the requirements are embedded into the narrative of the cases. The written solutions are adjudicated against the FAE competency statement and the students are assessed on a five point scale from "not addressed" to "highly competent" depending on how they address each issue.

For the FAE Core examinations, the final "pass/fail" decision is considered based on a matrix of sufficiency (overall competence), depth (how often depth of competence is displayed for Business Leadership and Performance Measurement) and breadth (ensuring students have met a minimum level of competence in each of the six module areas). For the FAE Elective, the focus is purely on sufficiency as depth and breadth are functions of the more integrated nature of the FAE Core.

Although there are no specific non-technical skills competencies identified in the competency framework, the CAI suggest that the non-technical skills are captured in the evaluation of how a student manages to assimilate, analyse, communicate and make judgements in their responses. Thus the objective of the FAE is to assess candidates' total competency. By adopting a case study approach designed to integrate the knowledge, skills and values derived from earlier studies and the work environment the FAE seeks to develop candidates' judgement and application of expertise. In addition, students are required to demonstrate non-technical skills in the workplace which is monitored by way of the diary – this is further discussed in the section on work-based assessment.

Another body which introduces some element of continuous assessment into their educational provision is the Malaysian Institute of Certified Public Accountants (MICPA). This body attributes 30% of the overall mark in each module to a combination of assessments which are

conducted throughout the workshop sessions for each module. There are five elements to the workshop assessment which are indicated in the following table.

Table 4 - MICPA workshop assessment components

	Weighting	Number of assessments
Tests	15%	2
Quizzes	15%	3 to 6
Assignments	20%	2
Participation	30%	4 to 6
Project	20%	1

The total score obtained by students in the workshop assessments is then weighted at 30% and combined with the examination mark of 70% to arrive at an overall grade.

NZICA have also introduced some form of continuous assessment into the educational programme. Students applying for entry into the professional competence programme of the NZICA must be in possession of a relevant accountancy degree. Thereafter they are required to undertake a foundations programme[19], pass the Professional Accounting School (PAS) before subsequently progressing to the final Professional Competence Examination (PCE2).

The aim of the foundations programme is to assess a provisional member's understanding and appreciation of their role as a professional within the Institute. The programme consists of around 50 hours of self study to complete the foundations study plans and Ethics in Action CD-ROM, attend a 6 hour foundations workshop which contributes 25% to the overall mark for the foundations level and undertake a 2 ½ hour examination which contributes the remaining 75% of the overall grade for the foundations programme.

Candidates are then required to obtain a weighted average mark of 60% from the two remaining components with PAS contributing 30% and PCE2 contributing the remaining 70%

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[19] The foundations programme and examination replaces the Professional Competence Examination (PCE1) from 2010.

(ABEL[20], 2008). ABEL further highlights that this final PAS/PCE2 final level does not seek to provide any comprehensive coverage of technical knowledge but rather attempts to integrate this knowledge and further develop competencies and skills (ibid). '*An important element in the development of these higher level competencies or skills is the ability to mix what has been learned in the 'lecture hall' with what has been undertaken in the work place*' (ABEL, 2008, p6). The NZICA further state that their ability to do this is dependent on creating an appropriate learning environment. In order to achieve this, small interactive groups are utilised which encourage high levels of candidate participation in a case study based programme timed to take place only after 2 years of work experience has been gained. For example, the Business Strategy course is '*substantially focussed on an interactive competitive business simulation model which requires candidates to develop and apply strategic thinking, both as individuals and as members of a team*' (ABEL, 2008, p10).

The PAS curriculum consists of five principal elements: Professional Skills 1; Reporting, Audit and Tax; Professional Skills 2; Financial Management; and Business Strategy and is based around eight competencies, namely; (1) solve business problems, (2) communicate effectively, (3) be ethical, (4) access, analyse and synthesise information, (5) apply critical thinking, (6) work in teams and demonstrate leadership, (7) integrate knowledge, and (8) maintain currency of technical skills. This curriculum is delivered via self-study materials and a series of two day workshops. Throughout PAS, a wide range of cumulative assessments whereby the principal emphasis is on group and teamwork are carried out. These assessments may include '*case study presentations, critiques, debates, group discussions, negotiations, role plays, written assignments and overall workshop participation*' (ABEL, 2008, p11).

The subsequent PCE2 assessment is a single case study examination which comprises a compulsory element together with the opportunity to select from a range of elective issues. Thus candidates are required to integrate their knowledge at various levels across the sub-disciplines of accountancy and other business disciplines, whilst also demonstrating professional skills and attributes in simulated 'real life' business contexts. Candidates are issued with background information to the case study 10 to 14 days prior to the examination which is subsequently open book. Candidates also have a relatively open ended period,

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[20] Advanced Business Education Limited (ABEL) is a wholly owned subsidiary of the NZICA

9.00am until 3.00pm, to write their responses (ABEL, 2008).   Thus the Institute is trying to replicate a real life situation as much as possible.

Another body which operates a system of pre-seen material is the Chartered Institute of Management Accountants (CIMA). Pre-seen material is introduced at the CIMA strategic level (which is level 3[21] of the qualification and the first level that all graduates must take irrespective of their degree discipline). The pre-seen material is published on the website at least 6 weeks in advance of the examination and the case study which is shared between the three strategic papers relates to question 1 of all three papers which is worth 50% of the marks in each case. Thus, this approach highlights the integrated nature of all the three subjects at the strategic level and also provides a bridge towards the assessment methodology that the students will encounter when they sit the multi-disciplinary case study level 4 paper (CIMA, 2010a).   The level 4 case-study also has pre-seen data issued at least 6 weeks in advance[22] with further material supplied at the examination. The requirement is to produce in a three hour period a report which is worth 90% of the marks and the remaining 10% is allocated to a short summary answer. The exact requirement of the short summary will vary, however, in the 2010 Mock Case Study exam it was for 2 power point slides with 5 bullet points on each. This is considered to be a test of the student's ability to communicate succinctly (CIMA, 2010c). Candidates can either prepare their answers in the traditional pen and paper format of they can use a PC with access to two blank files, one Word and an Excel file. Providing students with this option replicates action in practice as this is the type of communication which will be used in their day-to-day working environment.

There were four main case study assessment criterion identified in the pre-seen material for the 2010 examinations for sitting in March and May 2010, which were further subdivided as follows: Analysis of issues (Technical 5 marks, Application 15 marks, Diversity 5 marks), Strategic choices (Focus 5 marks, Prioritization 5 marks, Judgement 20 marks, Ethics 5 marks), Recommendations (Logic 30 marks, Integration 5 marks, Ethics 5 marks) (CIMA, 2010b). The

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[21] Level 1 is termed Operational and level 2 is termed Management. University graduates may be exempt from some of these papers dependent on their previous study.
[22] The same case study pre-seen material is used for both diets of examinations, May and November base material is

mark is then converted into a maximum of 50 credits of which candidates must score 25 credits. This credit score is then combined with the credit score achieved from the work-based practical experience (CIMA, 2010c).

Issuing pre-see material prior to the examination is not, however, without its drawbacks. Candidates from different backgrounds may be disadvantaged if they do not have access to the same resource pool and commercial training providers are known to dedicate considerable resource to 'question spot' what may or may not come up in the actual examination, as indicated by the following quote 'The main tuition providers publish in-depth analyses of the pre-seen material prepared by their technical experts and tutors' (Masters, 2010) Other Institutes have, therefore, resisted issuing pre-seen material for their final admitting case-studies. CIMA, however, have tried to mitigate the influence of different backgrounds and resource accessibility of students by publishing on the website three extensive articles to help with the preparation for the examination. In addition throughout the study process there is an online discussion board, Cimasphere for CIMA students to correspond with each other (CIMA, 2010a).

There is also a variety of practice in the number of elements that the final admitting examination may take. Institutes that want to continue to test specific technical competencies tend to have more than one assessment instrument making up their final examination, as demonstrated for example by the CIA with their core FAE and FAE electives. Another institute which utilises a multi paper approach at the final level is the CICA which has designed its final admitting examination (the UFE) in terms of its competency map which was introduced above in the section on competency frameworks. The UFE is a 3 day examination comprising of three separate papers.   In the 2007 UFE, the first paper was a five-hour single, comprehensive simulation which can be undertaken on a computer terminal. The second and third papers were four-hour papers, each consisting of three simulations (CICA, 2009). To attain a "pass" standing, candidates must address the issues in the simulations that are considered mission critical (primary indicators).   There are also secondary indicators of competence which are relevant but not essential for a competent CA to address.

Besides identifying the primary and secondary indicators of competence, an evaluation guide includes carefully defined performance levels to assist markers in evaluating a candidate's

competence relative to the indicators. Five categories of performance are given for each primary indicator. The candidate's performance must be ranked in one of the five categories, namely:

- Not addressed
- Nominal competence
- Reaching competence
- Competent
- Highly competent[23]

For each secondary indicator, the candidate's performance is ranked in one of three categories:

- Not addressed
- Nominal competence
- Competent

These indicators are subsequently mapped back to the list of competencies that should be reasonably expected of an entry level CA candidate and the proficiency levels assigned to each competency as contained in the competency map (CICA, 2009).

The map articulates both specific competences and pervasive qualities and skills. The specific competencies are grouped into six main categories, (1) governance, strategy and risk management, (2) performance measurement and reporting, (3) assurance, (4) finance, (5) management decision-making, (6) taxation. Within these specific competency areas, competencies related to the integration of information and information technology are also included. The map further identifies 3 levels of proficiency that candidates are required to demonstrate for each identified competence, starting with Level C (the lowest proficiency level) through to Level A (the highest proficiency level).

The Education & Qualifications Committee (EQC) of CICA determines the policies for the minimum coverage of each main category of competence. For example, the required relative weight for the 2007 UFE was stated as follows: organizational effectiveness, control and risk

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[23] This category was introduced in an effort to identify who the top 50 candidates were

management (10-20%) finance (10-20%), taxation (10-20%), assurance (20-30%), performance measurement (20-30%), information and information technology (10-20%) (CICA, 2009).

The pervasive qualities and skills, namely; ethical behaviour and professionalism, personal attributes and professional skills are expected to be brought to all tasks by a CA candidate. Hence the majority of pervasive qualities and skills are integrated into the technical competencies although there are some stand alone pervasive qualities and skills. Thus CICA are recognising that whilst the knowledge based competencies are critical for success, without the application of this knowledge in a manner that includes the integration of the pervasive qualities and skills, a CA candidate would be deficient in the discharge of their professional service duties. As the highest level of competency, namely, Level A is required for all pervasive qualities and skills (CICA, 2009) without Level A in an integrated pervasive quality or skill it would not be possible for a candidate to achieve a Level A competence in a particular technical area.

Examples of non-technically based competencies as articulated in the map are contained in Table 5.

Table 5 - Extract from List of CICA Competencies

The Pervasive Qualities and Skills	Level of Proficiency
11- Personal attributes	A
11-1 Self manages • Ensures all assigned work is complete, assesses own performance and updates professional development plan • On a regular basis, analyzes information about the entity's performance that is pertinent to the CA's position and responsibility	

 Source CICA, 2009

In order for a student to successfully negotiate the UFE they need to demonstrate that they have a sufficient level of knowledge, in other words they have done enough to address the

range of indicators to determine aggregate competency. Students then need to have demonstrated sufficient depth by reaching the requisite competence level in a sufficient number of primary indicators, namely, assurance and performance measurement competency areas. Finally students need to demonstrate breadth of knowledge by demonstrating that they have at least obtained the level of reaching competence in the other secondary indicators. The non-technical skills element is therefore heavily integrated into the assessment of overall competence and it is not possible to identify that a particular weighting is allocated to these non-technical skills.

Other bodies, however, specifically identify what percentage of the overall grade in the final admitting examination is allocated to the non-technical areas. The Institute of Chartered Accountants of Scotland (ICAS) also set a multi-disciplinary case study as their final admitting examination, although in this case it is a 5.5 hour exam with a one hour break for lunch, typically after 2.5 or 3 hours in the morning session. No pre-seen material is issued, therefore the morning paper introduces the case study, provides background information and suggests some preliminary work that the candidates may wish to take. Further information is provided to the candidates in the afternoon session when the candidates are notified of their final written work they are to undertake. The marks available are split 50% for technical and 50% for professional. The technical marks are gained from identifying, analysing and explaining the business issues within the case study. The professional marks are awarded for judgement, analysis, structure and communication. ICAS have also recently introduced the option to undertake the case study examination by way of a PC and this option has become increasingly popular with students.

Discussion

The educational literature highlights the importance of assessment to the educational process, suggesting that assessment drives both teaching and learning (inter alia Biggs, 1995, 1996, 2003; Entwhistle, 2000). If non-technical skills are deemed important in the battery of skills of a professionally qualified accountant, these skills must be assessed otherwise they will be

marginalised as students will concentrate on the skills which determine success in the assessment (Diamond, 2005).

There are two approaches to assessing non-technical skills within the examination system, namely; (1) introducing at an early stage and assessing through the various levels of examinations, and (2) focussing the assessment at the final admitting level examination stage only. Whilst there is a variety of practice within both of these approaches, it is our view that any summative assessment is better than none. However, in order to encourage (force) students to engage with their non-technical skills development (Herbert et al., 2009) at an early stage in their careers, the summative assessment of non-technical skills should be incorporated at an earlier stage than the final admitting examination. Indeed, accountancy trainees have traditionally been expected to build on their technical subject knowledge from stage to stage – non-technical skills should be afforded the same treatment if students are to increase the level of their competency. Professional bodies then need to outline what skills and level of competency they require (see commentary on competency frameworks above) in other words indicate where the educational process is trying to get the students to before communicating where and how the assessment will take place.

It is not the role of this report to specifically identify what is the 'best' method to assess non-technical skills, however, there is evidence of good practice in a variety of guises. Recognition that certain skills are best assessed outside of the traditional end of course examination (French and Coppage, 2000; Stolowy, 2005; Velayutham and Perara, 2008) has lead some bodies (CAI, NZICA) to introduce elements of continuous assessment, which include presentations, debates, group discussions etc. This type of assessment allows the professional body to target those specific non-technical, behavioural skills that they wish to see demonstrated. Oral examinations such as that adopted by NIVRA also facilitate the assessment of communication skills.

The most popular method of assessing non-technical skills within the examination system is however the through the utilisation of case studies. Case studies have traditionally been regarded as a powerful assessment tool in professional accountancy arenas as they test a student's ability to apply their theoretical knowledge to a practical problem and devise a solution (inter alia AAA, 1998; Albrecht and Sack, 2000; Lysaght and Altschuld, 2000). Case studies are also a valuable assessment tool as they test Blooms (1956) higher order cognitive skills and transcend the assessment of technical and non-technical skills. Despite these

qualities as an assessment instrument, many professional bodies delay the introduction of case studies as an assessment tool until the final admitting examination. Thus these bodies potentially miss the opportunity to start focussing their candidates' attention on the development of their skills in the areas which are not easily assessed by way of a traditional examination. Introducing mini case studies at the pre-final stage extends the assessment base before students embark on the more substantial 'high stakes' final level case study. This final level case study in the main does not introduce any new technical material but tests the higher order cognitive and non-technical skills. However, in order to fully address the integrative and multidisciplinary nature of the modern accountant's role (IFAC, 2003), it is appropriate that the final level case study is reflective of this environment.

Practice varies in relation to pre-seen material, with some bodies (ICAEW, CIMA, NZICA) publishing material in advance of the final examination, thus potentially exposing students to an educational environment over which the professional body has no control. However, this type of approach is more akin to what a member is likely to experience in real life and removes any element of rote learning and regurgitation of knowledge to a more applied understanding and application.

Some bodies also allow students to complete their scripts on a computer (CIMA, ICAS, CICA), hence, once again reflecting real life in practice. This enables the professional body to assess communication skills in the medium in which the student will operate. Hence, permitting computers into the examination hall, as opposed to requiring students to hand write lengthy reports without the use and functionality of word processing and spreadsheet packages, raises the validity of the non-technical skills assessment.

Work-based assessment

Quite a number of the professional bodies recognised that the workplace experience was an integral part of the learning process in order to become a qualified accountant. For example, ACCA indicate that in order to perform effectively as an ACCA qualified accountant, and to meet future career challenges, trainees need to develop their skills in the workplace as well as passing the exams (ACCA, 2008). There was also a general recognition that non-technical

skills are developed by a combination of academic input and work experience with different emphasis being placed on each within the generic skill group as identified within IES 3. For example, SAIC is of the view that personal skills and interpersonal and communication skills were developed predominantly within the work-place. CIPFA is another example of a body which puts considerable emphasis on the development of practical skills within the workplace to complement the more theoretical knowledge and techniques that the students learn through the education modules (CIPFA, 2009). For those bodies which assessed work-based learning there was a general consensus that this was the main assessment instrument for non-technical skills.

The following section will now discuss some examples of work-based assessment utilised by a variety of professional bodies.

The ACCA professional experience requirement (PER) sets out to achieve three objectives for trainees as follows:
• apply in practice the knowledge and techniques gained through their studies towards the ACCA exams
• observe and be involved in real-life work situations that help the student to develop the skills, attitudes and behaviours that a qualified accountant needs
• develop judgement, and encourage the student to reflect on the quality of their work and how they may improve their work performance in the future (ACCA, 2008)

The work experience takes place over a minimum of 36 months in one or more accounting or finance-related roles. By the end of the experience a trainee needs to prove that they have the relevant professional skills, knowledge, attitudes and behaviours required of a qualified accountant. In order to do this a trainee is required to achieve 9 essential performance objectives, which focus on professionalism, ethics and governance; personal effectiveness; and business management and at least 4 optional performance objectives which focus on technical areas to the satisfaction of the workplace mentor. The performance objectives are all closely linked to the exam syllabus, reinforcing the fact that any knowledge developed through the exam process will have a clear application in the workplace (ibid).

Whilst the communicated objectives are relatively general as demonstrated by the three personal effectiveness objectives which are simply articulated as (1) manage self (2)

communicate effectively and (3) use information and communications technology, further information is provided in the trainee development matrix[24] (TDM).

The TDM is an online development tool designed to guide the trainee through the planning of their development towards the successful completion of the objectives. The TDM uses a navigation system that trainees are likely to be familiar with from using other web-based systems and the Internet. There are 7 screens in the TDM, followed by an annual return which is also incorporated in the online document (ibid).

The first screen deals with the performance objectives and gives the trainee information designed to help them achieve each objective successfully. Examples of suitable work activities are provided that could help the trainee achieve their performance objectives. The second screen provides trainees with performance indicators which describe the work outcomes a trainee must show, the behaviours and values a trainee is expected to demonstrate, the level of quality a trainee must achieve, and the contribution a trainee's work must make. The third screen acts as a reminder of the knowledge the trainee should be using when working towards the performance objective. The fourth screen makes explicit the link between each performance objective and an examination paper. The fifth screen asks challenge questions which are designed to help the trainee develop their judgement, reflect on the quality of their work and what they might need to do to improve your work performance in the future. Each performance objective has three unique challenge questions attached to it. Therefore once a student is of the opinion that they have achieved a particular performance objective they then undertake the challenge questions (ibid).

Challenge questions which require an answer to be posted on the TDM of no longer than 500 words and which are reviewed by the workplace mentor are designed to:
• allow the trainee to describe their experience in a structured way
• enable the trainee to illustrate any unusual or individual circumstances that they might have encountered, as well as to describe how these were taken into account or how they overcame any difficulties

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[24] Trainees who undertake their training with certain approved employers may be exempt from completing the TDM.

• allow the trainee to show that they have thought about the quality of their work and reflected on their performance and achievement in the workplace

• help provide evidence about the trainees' performance that their workplace mentor can review. (ACCA, nd).

By way of example, the three challenge questions for the performance objective 'communicate effectively' are articulated as follows:

1. Describe situations where you have effectively demonstrated each of the forms of communication mentioned.
2. What did you do to help you communicate effectively?
3. How have your communication skills helped you to improve your performance elsewhere? (ibid)

It is the responsibility of the trainee to find their own workplace mentor who should ideally be a qualified accountant, although not necessarily an ACCA qualified member, and have knowledge of the person's work.   This individual subsequently supports the trainees' development in the workplace and reviews their progress and achievements at work, and so plays an important role in the achievement of a trainee's PER. Because the mentors are globally sourced depending on where the trainee is employed, ACCA do not offer formal training for mentors, however, there is extensive guidance issued by ACCA for mentors on their website. Once both the trainee and the mentor agree that the standard required has been met then the performance objective can be signed off (ACCA, 2008).

The next two TDM screens are facilitating tools in order to guide the students through their PER journey. Screen 6 of the TDM contains a role profile section, the purpose of which is to get students thinking about what they do, who may be able to help them achieve their objectives within the PER and how they may start working towards their performance objectives. Screen 7 contains a development plan which prompts students to think about the work experience the trainee will need in the future, the skills they will need to develop and how they are going to develop these skills in order to achieve their performance objectives. The development plan also prompts the trainees to think about the people who can assist the student in the pursuance of their objectives (ibid).

In order that ACCA can track a trainee's progress, trainees are required to complete a PER return each year. This is completed on the final screen of the online TDM. The annual return allows the trainee to:

• view or confirm the performance objectives that have been signed off to date

• confirm the time (in months), since the last annual return, that the trainee has have been in a relevant role

• confirm that the information the trainee has given is true by signing a declaration and agreeing that they are committed to their development and to ACCA's Code of Ethics (ibid)

ACCA sample test the TDM to ensure that the process and hence competence achievement is both reliable and valid, however, not all records are checked.

Through the assessment of the PER, ACCA is clearly communicating to students that the work-experience plays a fundamental role in becoming a qualified accountant, and that this experience is fully embedded with the more formal examination based educational process. Whilst there are no developmental achievement targets set for each year of the three year work-experience, the requirement for trainees to complete an annual PER return tracks their progress through to the ultimate achievement of all the requisite competencies. By requiring trainees to answer challenge questions, it is impossible for trainees to simply tick that they have achieved the relevant competence. Instead, trainees are forced to provide evidence regarding their performance and reflect on their achievement. Whilst work-place mentors are not necessarily ACCA qualified and hence have not necessarily been exposed to the system, there is considerable help provided by ACCA for both students and mentors. The website with a supplementary voice-over directs interested parties to additional guides and support sheets for many aspects of the PER. Interactive case studies have also been developed, four of these are from a trainee's perspective and two focus on that of the mentor. ACCA has also produced 18 short videos and podcasts to assist trainees and workplace mentors in completing the trainee development matrix (TDM). These provide a step-by-step guide to the functionality of the TDM.

The ICAA requires candidates to undertake 36 months of work experience as a pre-requisite to qualification. A practical experience activity log has been developed from the competency framework and candidates are required to demonstrate competence in all of the non-technical competences and at least one of the technical areas. The activity log is used to capture

evidence which is subsequently used to support the assessment of an individual's competence by their line manager and mentor, the latter of which is required to sign off a final report certifying competence. Candidates are expected to provide between one and three examples within the log to show how each competency has been demonstrated. The evidence must be taken from the individual's work-based experience and should show to the assessors how the skill level within the area has been developed. The evidence must be readily supportable in documentation, explanations by the candidate or observations by the line manager/mentor. Students are required to keep their activity logs up to date as they can be called for by the Institute at any time. Within the activity log guide candidates are provided with examples, the following of which is an extract:

Table 6 – Extract from ICAA Activity Log

Competency	Level	Evidence reference	Start date	End date	Line manager (signature)	Mentor review (signature)
Compare and contrast tax evasion and tax avoidance	A*	Discussed with manager client who does not want to disclose their offshore interest in their tax return. Reviewed individual income tax return to ensure that correct tax treatment was applied where shares previously treated as trading stock were now being treated as a CGT asset.	10 Aug 06	24 Aug 06	Sample manager	Sample mentor

*A = Application and analysis   Source ICAA 2008

Candidates are encouraged to meet with their line manager monthly and their mentor quarterly. In order to help candidates prepare for these meetings the guidelines provide students with worksheets which they should complete prior to the meetings, although this is not a compulsory element of the Activity Log completion. Candidates are also encouraged to reflect on their learning and are provided with a reflective framework based on Edward De Bono's 'Six thinking hats' however there is no mechanism within the activity log for formalising this reflection and therefore this is a voluntary activity.

CAI also requires students to undertake a minimum of 36 months of work-experience prior to admission to membership, which is assessed through a CA diary. The CA diary is a web-

based tool in which students chronicle their work assignments and demonstrate how these assignments contribute to the acquisition of competences required by the Institute of a newly qualified CA. Students are therefore encouraged to reflect on their work experience, making reference to the levels of competence that they have achieved within particular functional areas. Students are encouraged to complete their diary on a monthly basis and meet with their mentors on a bi-annual basis. CAI has identified 3 levels of proficiency, namely; understands, applies and integrates, which are generic to every assignment and which serve to demonstrate the progression of the trainee during the period of professional development. However, unlike the functional areas, the professional values and personal and interpersonal skills are not defined in the diary as competencies[25]. Instead the diary simply requires that an assessment is made about the trainee and their demonstration of awareness within seven generic areas as follows: (1) demonstrates ethical and professional behaviour, (2) self, people and project management[26], (3) communication skills, (4) development of a strategic attitude, (5) objectivity and openness to change, (6) problem identification and resolution, (7) recognition of personal limitations. Specifically, mentors in their six monthly reviews of the trainee are required to assess whether the awareness in the trainee is; not observed, sometimes observed, frequently observed or always observed. During the work-experience trainees should progress from sometimes to always in their final year (CAI, 2009d).

CIPFA utilises a system known as the Initial Professional Development Scheme (IPDS) which requires students to provide a portfolio of learning that maps their professional development. The portfolio consists of four parts as follows (1) a record on which the details of 400 days of validated workplace experience is logged (2) an evidenced based record and reflection on the application of theory to three selected areas of professional activity selected from a range provided for by CIPFA[27] (3) an evidenced based record and reflection on three specified

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[25] Although it should be noted that in order to reach the higher levels of competency within the functional areas. For example, in order to achieve the highest level of integration students will be required to 'demonstrate clear managerial/leadership skills, communicates concisely and effectively, verbally and in writing, both in-house and to clients' (p10, ICAI, 2009)

[26] An example is given within the student guidelines for each of the seven areas. The example for Self, people and project management is 'understands the goals of the organization, completes efficiently all assignments, understands that all assignments are contributing to professional development, is courteous and supportive of colleagues.' (p22, ICAI, 2009)

[27] For each of the three activities chosen candidates are asked to demonstrate (1) how they planned the activity, (2) how they applied their knowledge and skills to the workplace, (3) how they have provided evidence to show that they have undertaken the activity and (4) how they have reflected on the effectiveness of the application of their knowledge and skills to the practice and learning that has taken place.

activities[28], and (4) a reflective commentary on the work-place experiences to date which will also include future learning goals. This completed portfolio is then submitted to CIPFA where it is assessed by an accredited portfolio assessor. This assessor will also interview the student in order to ascertain the veracity of the portfolio and to further explore the experiences of applying knowledge and skills in the workplace.

ICAEW also requires students to undertake 36 months of work-experience and during this time the trainee will be required to demonstrate that they have achieved five broad key skill areas, namely:

1. ethics and professionalism

2. personal effectiveness

    a. personal attributes and abilities

    b. communication

    c. interpersonal skills

3. technical and functional expertise

    a. understanding and doing what is required at work

    b. using IT applications

    c. dealing with technical issues and problems

4. business awareness

    a. personal skills

    b. organisational skills

    c. commerciality

5. professional judgement

    a. analysis

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[28] The three specified activities are (1) the planning, preparation, delivery and reflection on an oral presentation (2) a clear demonstration of the ability to manage effectively an iterative process (3) demonstration of the management of a long term, planned process

b. professional knowledge and skills

c. data gathering

Within each of these areas ICAEW articulates three principal based levels of achievement. These levels progress form level 1 through to level 3. An extract of the levels as they progress in relation to the key skill area of Business Awareness under Personal Skills is as follows:

Table 7 - Business awareness – an extract

Key Skill Area – Business Awareness The trainee achieving level 1 skills:-
Personal skills
learns through situations
learns from more experienced colleagues
completes tasks to time and anticipates time issues
manages own work to meet performance expectations
Key Skill Area – Business Awareness The trainee should continue to exhibit all the level 1 behaviours. In addition, the trainee achieving level 2 skills:-
Personal skills
plans and prioritises work to meet employer s deadlines
Key Skill Area – Business Awareness The trainee should continue to exhibit all the level 1 and 2 behaviours. In addition, the trainee achieving level 3 skills:-
Personal and organisational skills
recruits or builds effective teams
understands the importance of team structures
manages a team successfully and meets performance objectives
sets, plans and reviews objectives
responds to revised expectations and exceptional circumstances
sets and prioritises tasks for others under time constraints
understands the impact of pressure on others

Source: ICAEW (1995)

Students and the Qualified Person Responsible for Training (QPRT) can therefore track the student's progress and development throughout the 36 month work-experience period. The QPRT is subsequently required to sign-off that the trainee has reached level 3 in each of the five generic areas prior to admission to the Institute.

Whilst the NZICA also requires three years of practical experience, only 24 months of this needs to be undertaken within an Authorised Training Office (ATO) under the direction of an Institute registered mentor (NZICA, 2009). This mentor is subsequently responsible for

monitoring and verifying the experience gained and the competencies that have been developed. Once the mentor is satisfied that all the required competencies have been developed to the appropriate level then a final report is signed off. This is a prerequisite for membership to the Institute and the only documentation that needs to be submitted in respect of the work-based assessment. Therefore whilst students are encouraged to keep a professional development record, training diary and training plan these are not compulsory if another system of tracking progress exists. In terms of competence, seven technical areas are identified, in which in order to become a chartered accountant candidates must gain all the competences within one of these areas to level 3[29] and to level 2 in a further two areas. All of the six areas of non-technical competencies, namely; (1) teamwork, (2) organisational skills, (3) research and evaluation, (4) decision making, (5) exercising ethical and professional behaviour and (6) communication skills must also be developed to level 3. However, the level 3 competencies are simply articulated as the level 2 competencies with three additional requirements. An example of this is illustrated in Table 8.

Table 8 - Non-technical competencies

Level 2 Competency	Level 3 Competency
NT1 Teamwork	**NT1 Teamwork**
• Work with others and in teams	• Work with others and in teams
	• Demonstrate leadership
NT2 Organisational skills	**NT2 Organisational skills**
• Plan, organise and monitor activities	• Plan, organise and monitor activities
• Use information technology effectively	• Use information technology effectively
	• Organise and delegate tasks

Source NZICA 2009

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[29] There are three levels of competence: level 1 – foundation, level 2 – intermediate, level 3 – senior.

The only difference between the two levels for these two competencies is the addition of the requirement to 'demonstrate leadership' and 'organise and delegate tasks' therefore there is less scope within this process for candidates to chart their personal development as they progress through their work experience.

The Royal NIVRA requires students to undertake six 'semesters' of 500 hours each, which is the equivalent of three years. During this time activities must be performed which link up with the theoretical programme. Each year a prescribed number of hours must be spent on assurance engagements. Prior to each traineeship year, an annual plan is prepared which highlights the professional and personal learning objectives[30] for the year and how the trainee expects to realise these (Royal NIVRA 2008). The learning objectives are jointly formulated between the trainee and their supervisor but with ultimate approval resting with the supervisor. As new objectives are set for each year of the practical experience programme, these objectives are progressive and hence students can chart their development over the three year work experience programme. The Royal NIVRA, however, do not provide a list of required objectives which must be met prior to admission to membership, thus there is the potential for variation in practice between different traineeships. However, the Royal NIVRA are currently re-considering this issue, as the Institute is working on a set of specific formulated learning outcomes for their practical experience programme. Thus it is probable that in the near future the Institute will be able to introduce a more specific list of learning objectives, related to the work-experience learning outcomes.

General Trainee Reporting (GTR) forms are then completed at the end of each semester which compare the actual hours spent against those identified in the annual plan. Based on the comparison adjustments can be made where necessary. At the end of each semester students are also required to prepare a traineeship report which contains the following:

- The activities performed and the time spent on each activity

- Evidence that the learning objectives set out in the plan have been achieved and the related skills have been learned

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[30] Unfortunately the current learning outcomes document which highlights the required skills is only available in Dutch

- The relationship between the work-based activities and the completed parts of the theoretical programme

- Commentaries, suggestions and subjects that may lend themselves for the practical thesis

- Planning for the remaining part of the traineeship

Source: Royal NIVRA 2008

In addition the reports for the second through to the fifth semester must also contain an essay of at least 1800 words. In this essay the trainee describes a practical situation from the semester, in which one or more themes from the theoretical programme have been applied. The essay must reflect:

- A critical approach and explanations

- Comparison with other and/or similar experience gained during the traineeship

- Proper editing

- Personal style, perceptions and views

- Recognition of the added value of the traineeship in the context of the learning process (theory and practice) that the trainee has gone through so far.

(ibid)

There are also specific additional requirements for some of the essays to reflect particular aspects of the theoretical syllabus. On successful completion of the six semesters and a graduation thesis, the trainee is then required to undertake an oral examination. The thesis must be around 9,000 words and should contain similar elements to the essays as identified above. Moreover, the thesis must be based on a formulation of a specific problem and a critical analysis of a specific situation met in practice. This "practical situation" must be a rather complex business case in which the trainee has played an (important) role and which also contained an accountant's dilemma. By means of the analyses the trainee must show that they are able to observe a problem and that they are able (because of their knowledge obtained in the theoretical programme and their practical work experience) to find proper solutions with respect to the problem. The thesis must also reflect the trainee's ethical

considerations, their professional behaviour, their views on the public relevance of the case as well as the arguments for the choices made with respect to finding a solution to the problem.

The thesis requires to be approved by two examiners. One of the examiners is the person who guided and coached the trainee during the process of writing his thesis. The second examiner is an independent individual appointed by NIVRA and who may not have had any contacts with the trainee. On approval of the thesis, the trainee is then required to defend their thesis to the two examiners during an oral examination that lasts for 90 minutes. Within this time trainees can also be examined about their experience(s) and their individual development during the three years traineeship. During the oral examination much attention is given to ethical aspects and behaviour such as professional scepticism and any moral dilemmas the candidate had encountered. The candidate can also be examined about their knowledge of the rules and regulations with respect to the accountancy profession in the Netherlands. In general the candidate has to convince the examiners that they are competent to perform as an entry level qualified member of the profession, not only because of their technical knowledge, but also because of their skills and professional attitude.

SAICA undertook a benchmarking survey in November 2008 which examined their assessment of workplace experience. This survey highlighted areas of concern which SAICA have addressed by introducing a new system of work-based assessment effective from January 2010. This new system is applicable across all training environments whether this be within or outwith professional accounting firms and introduced new enhanced assessment instruments, which can be accessed via an internet-based learning tracking system platform.

The new system requires a professional skills review to be undertaken on an ongoing basis and a technical skills review to be undertaken every two months. Every six months there is a formal evaluation and an assessment needs analysis is completed. For the professional skills review the trainee must determine which professional skills outcomes they have obtained evidence of their ability to demonstrate. They must then perform a self-assessment for each of the identified outcomes and indicate the level of competence at which they were able to demonstrate for that particular skill. Documentary evidence needs to be provided to support the claim. The reviewer is then required to rate the candidate and any differential in ratings between the trainee and the reviewer must then be discussed.

The example provided in the documentation is replicated in the following table:

Table 9 - Extract from SAICA's Professional Skills Review Template

BUSINESS ETHICS:ACTS ETHICALLY AND IN ACCORDANCE WITH THE RULES OF PROFESSIONAL CONDUCT							
BE(C)1: Displays honesty and integrity							
Trainee evidence presented					Review of evidence		
Date of evidence	Assignment description	Evidence presented in support of rating	Rating of trainee	Trainee signature	Rating by reviewer	Reviewer's name and date of review	Reviewer's Comments (if necessary)
Trainee's comments in respect of reviewer ratings for this topic if necessary							

Source: Professional Skills Review Template (SAICA 2009)

The Assessment Needs Analysis is required to be completed at the end of each successive six month period. The objective of this analysis is to evaluate the evidence presented by the trainee and to assess the trainee's demonstrated competence at that particular point in time against the final entry level which for the professional skills is the highest level of competence. The evidence is considered on a cumulative basis, therefore consideration needs to be given to the rating that has been brought forward from a previous period. The document is divided into 4 sections as follows:

- Section 1 – assessment of the competencies achieved to date taken from the technical and professional skills review

- Section 2 – documentation of major assignments scheduled for the next 6 months with details of expected tasks and responsibilities. Documentation and reflection on academic progress in the last six months.

- Section 3 – summary of courses attended, documenting the learning objectives and how the trainee has subsequently applied this learning in the workplace. Where this

transfer of learning has not been undertaken then the students needs to document how they plan to achieve this in the future.

- Section 4 – commentary on the effectiveness of any previous developmental plan put in place. Documentation of any remedial development needs, the nature and timing of the required interventions should be described in detail.

An extract of Section 1 which relates to professional skills is outlined below:

Table 10 - Professional Skills Assessment in the Assessment Needs Analysis

OUTCOME	Required final competence level	Rating achieved on previous ANA	To be completed by the trainee accountant from the PSR for this period	To be completed by the evaluator			To be completed by the assessor	
			PRS Ratings	Overall rating	Development required	Comment (where necessary)	Demonstrated the required FINAL competence level?	
							Tick	Initials
COMPETENCY: BUSINESS ETHICS								
BE 7 Adheres to the rules of professional conduct, including the SAICA Code of professional Conduct	4				Yes No		Yes No	
Trainee's comment on evaluator's rating for these outcomes (where necessary)								
Assessor's comment on trainee's overall rating (where necessary)								

Source: Professional Skills Review Template (SAICA 2009)

One of the drivers for change for this new assessment system was the desire to ensure that trainees are treated on a consistent and fair basis. Whilst the new system recognises that any assessment process requires assessors and evaluators to make judgment calls, which are by their very nature subjective, steps should be taken to reduce variations in these judgements where possible. Therefore, in order to assist in this subjective evaluation, SAICA have provided their assessors and evaluators with yardsticks against which they can measure the degree of

demonstrated capability. This has been achieved by the development of an assessment toolkit (SAICA, 2009) for use in the assessment process. This toolkit provides more detailed explanations on the different rating levels that can be awarded. Four skills competence levels have been identified for both technical and professional skills, the latter of which is replicated below in Table 11.

Table 11 - Professional skills competence levels

Skill level	Indicator
1	• not capable of demonstrating the skill • no matter how much input / assistance / supervision / intervention is provided
2	• capable of demonstrating the skill, but… • **requires** *considerable* input / assistance / supervision / intervention / guidance • cannot perform fundamental aspects of the skill *without significant assistance / guidance* • would not be able to start utilising the skill if left on their own without supervision
3	• capable of demonstrating the skill, but… • **still requires** *limited* input / assistance / supervision / intervention / guidance • is not able to perform fundamental aspects of the skill *without some assistance / guidance* • would be able to start utilising the skill but would not be able to achieve the desired objective / outcome satisfactorily if left on their own without supervision / assistance / guidance
4	• capable of demonstrating the skill • **does not** *require* input / assistance / supervision / intervention / guidance • is able to perform fundamental aspects of the skill without assistance • would be able to start utilising the skill and achieve the desired objective / outcome if left on their own without supervision / guidance • this does not imply that the trainee needs to utilise the skill in isolation. They may still need to discuss aspects of the utilisation of the skill (or the required outcome) with their senior but it would be for purposes of confirmation / clarification rather than to receive direction as to what to do.

Source: Assessment Toolkit 2009 (SAICA, 2009)

In addition, decision trees have been developed to provide further guidance / clarity on the application of the SAICA ratings when assessing the capability of a trainee accountant of satisfactorily completing required assessment criteria for both technical and professional skills. The decision trees seek to identify the main factors that influence the assessment of competence (SAICA, 2009). T

Finally, scenarios have been constructed to illustrate what the correct application of the SAICA assessment rating scale should be. Assessors are strongly recommended to work through these scenarios using the rating explanations and decision tress and then compare their ratings

with those in the solution that follows.

In addition before a qualified SAICA member can become an assessor on the SAICA programme the individual is required to attend a two day workshop and then submit a portfolio of evidence to demonstrate that the competencies required of an assessor have been achieved. SAICA also produce a very detailed assessors' manual outlining the rationale and mechanics of the assessment system and comprehensive examples of completed documentation are provided for clarification.

As indicated in the literature review recent educational thinking has focused on the concept of the 'reflective practitioner' as a way of developing and continually improving professional competence. Indeed *'Effective reflection is a technique that is of great importance in professional development. In order to learn from our professional experiences we need to be able to reflect upon them'* (CIPFA, 2009).

Whilst some of the bodies such as the AICPA encourage students to reflect on their learning for the completion of their activity log, there is no mechanism for formalising this reflection. For other bodies reflection is inherent in the work based assessment, see for example the ACCA and SAICA process as discussed above. Other bodies, however, such as ICAS and CIPFA require students to write down their reflections as part of their assessment. CIPFA articulate the rationale behind this in their students guide. First, without any written narrative there is no evidence that students have reflected. Second, the actual action of writing about the experience also aids reflection.

Whilst ICAS provides a space for students to reflect within the achievement log and require students to complete this section there is little guidance given to students about how to go about writing an effective reflective statement and how long this should be. CIPFA on other hand provides some extensive guidance on writing reflective commentaries and guides students through the three main stages that make up the process of reflection, namely; returning to the experience, attending to their feelings and re-evaluating the experience. Students are also given an indicative word count for each of the reflective statements they are required to write, 500 words for each of the activities chosen for the review and 1,000 words for the overall reflection on the professional learning activities. The concluding interview also gives the assessor an opportunity to explore the reflection further as candidates will be expected to

expand on their reflections and this is likely to focus the student's attention on what they have submitted.

Discussion

There is little dissent by professional accounting bodies that work place experience is an integral part of the learning process in order to become a fully qualified accountant. Hence professional bodies are recognising that learning takes place in 'communities of practice' (Wenger, 1998) and the importance of 'context' (Nespor, 1994) for situated learning (Lave and Wenger, 1991). Indeed, some of the bodies were of the view that non-technical skills were predominantly developed in the work place (*inter alia* ACCA, CIPFA, SAICA), although there is also recognition that any technical knowledge developed through the exam process will also have a clear application in the workplace (ACCA, 2008). It is therefore important that professional bodies require students to undertake a significant period of work experience as part of their training and then clearly articulate the fundamental role that work experience has to their progress. This can be achieved through the development of an overarching competency framework (as discussed above) as this will clearly demonstrate the role that each component of the education process has to the overall development of the student and subsequent base achievement required for membership admission.

However, in order for this valuable learning to be harnessed and recognised it is important that the skills developed/acquired during the work experience are also assessed, otherwise students will not pay sufficient attention to this aspect of their development.

The educational literature highlights the difficulties encountered in trying to assess competency within the workplace, raising concerns over the reliability of the assessment (inter alia Stobart, 2008; Hancock et al., 2009) and the competence of the assessors (Hyland, 1994). The literature also cautions against generating detailed lists of competencies as this encourages a check off approach to competency achievement (Boritz and Carnaghan, 2002). Professional bodies should therefore develop an evidence based approach, such as that advocated amongst others by SAICA, CIPFA, ICAA, so that any decision on whether a candidate has demonstrated a competence or not can be supported by either documentation or an observation. The mechanism for recording the demonstration of competence should also be

narrative in nature, such as that adopted by ACCA in their TDM, thus encouraging students to articulate how and why they have achieved a certain competence.

The assessment instrument should also incorporate different levels of achievement along the lines of the ICAEW model as this approach encourages students to chart their development and address any shortfalls in their performance as they progress through their training contract. This approach should persuade students to reflect on their performance and hence also develop their reflective capacity which is deemed a fundamental tool for continually improving professional competence (Boud et al., 1985). Indeed, the importance of developing accountants as 'reflective practitioners' (Lucas and Tan, 2007; Gammie et al., 2008; Velayuthum and Perera, 2008) strengthens the case for ensuring that some sort of formal reflection about performance should be incorporated into the work place assessment instrument. Reflective commentaries such as those required by ICAS and CIPFA are useful in this regard although the reflection should then be used as the basis on which future developmental plans are drawn up, such as that advocated by SAICA.

In order to facilitate the completion of the work-based assessment documentation professional bodies should utilise web-based tools, such as the SAICA or ACCA tools, as this allows both the assessor and the assessed to contribute, update and track performance and hence also encourages reflection.

Finally, in order to ensure that due credence is paid to this aspect of assessment and that any decisions are reliable and valid, it is important that professional bodies provide both the assessors and the assessed with sufficient support and direction to enable all parties to discharge their responsibilities effectively. Whist many bodies provide extensive examples and support, for example the ACCA videos and podcasts and the SAICA assessment toolkit, there is little evidence of formal assessor training. Due to the complexity of determining competency within the workplace (Lines and Gammie, 2004: Hancock et al., 2009) professional bodies should consider introducing formal assessor training along the lines of the SAICA model otherwise inter-assessor reliability may be an issue.

Conclusions and Recommendations

There is little dissent in the literature about the importance of non-technical skills to the battery of competencies that a qualified professional accountant must display. Hence, the development of non-technical skills is considered key to professional career success. Whilst the journey to becoming a fully qualified accountant differs quite significantly from jurisdiction to jurisdiction, professional accounting bodies should endeavour to ensure that their education programmes are constructively aligned with the requisite technical and non-technical skills of a newly qualified accountant. Possession of these wide-ranging skills will equip the newly qualified accountant with the foundations from which to make a positive contribution to both the profession and the society in which they work.

There are usually three strands of educational development to becoming a professionally qualified accountant, namely; university education, professional education and work experience, each strand of which has a valuable role to play. As the ultimate responsibility lies with the professional body whether to admit an individual for membership or not, professional bodies must be able to convey what capability and to what level is required for admission. Whilst capability frameworks have been developed by both IFAC and Common Content, these frameworks, particularly those developed by IFAC, are by their nature generic as they cater for a wide variety of member bodies. Hence, each body should develop their own individual framework which satisfies any appropriate generic framework but which specifically addresses the capabilities required of a qualified accountant with that particular body. The logical extension to this is for professional accountancy bodies to articulate within each stand of the educational process what they require in terms of technical and non-technical skills development encompassing both the identified skill and the level of competence required within each strand.

These frameworks could then be subsequently used to regulate skills development (technical and non-technical) in universities as each university would need to demonstrate how they ensure that students graduating from their particular programme are competent at the requisite level for each identified skill.

The educational literature highlights the importance of assessment to the educational process, suggesting that assessment drives both teaching and learning. If non-technical skills are deemed important in the battery of skills of a professionally qualified accountant, these skills must be assessed otherwise they will be marginalised as students will concentrate on the skills which determine success in the assessment. The assessment of non-technical skills should therefore be introduced prior to the final admitting examination otherwise the potential for developing these skills throughout the training period is likely to be inhibited. The assessment should also, where possible, mirror the real life environment in which a new qualified accountant is likely to find themselves. Hence professional bodies should be encouraged to design their case studies around pre-seen material, within a multidisciplinary context and permit candidates to utilise word processing and spreadsheet packages in the design of their solutions.

There is little dissent by professional accounting bodies that work place experience is an integral part of the learning process in order to become a fully qualified accountant. Indeed, some of the bodies were of the view that non-technical skills were predominantly developed in the work place. It is therefore important that professional bodies require students to undertake a significant period of work experience as part of their training. However, in order for this valuable learning to be harnessed and recognised it is important that the skills developed/acquired during the work experience are also assessed, otherwise students will not pay insufficient attention to this aspect of their development.

In an attempt to avoid some of the criticisms levelled at work based assessment, professional bodies should develop an evidence based narrative approach so that any decision on whether a candidate has demonstrated a competence or not can be supported by either documentation or an observation. The assessment instrument should also incorporate different levels of achievement to encourage students to chart their development and address any shortfalls in their performance as they progress through their training contract. This approach should persuade students to reflect on their performance and hence develop their reflective capacity which is deemed a fundamental tool for continually improving professional competence. Indeed, the importance of developing accountants as 'reflective practitioners' strengthens the case for ensuring that some sort of formal reflection about performance should be incorporated into the work place assessment instrument which can be built into an appropriately designed web-based assessment tool. Finally, in order to increase the inter-reliability of assessors

professional bodies should run formal assessor training and provide sufficient guidance for both parties in the assessment process.

This project did not set out to provide a global overview of professional education, nor did it set out to critically evaluate educational practice. The aim of the project was to search for good practice in the development and assessment of non-technical accounting skills in the creation of a professionally qualified accountant. In this report we have provided readers with several examples of good practice across various components of the educational process. Professional bodies now need to reflect on their practices and evaluate these against 'good' practice elsewhere with a view to making any improvements where required for the development and assessment of non-technical skills.

Appendix 1 - Skills Map comparing non-technical skills identified by IFAC and Common Content Project

IFAC	COMMON CONTENT
Cognitive Skills	

Intellectual Skills:
 	
• Ability to locate, obtain, organise and understand information from human, print and electronic resources
• The capacity for enquiry, research, logical and analytical thinking, powers of reasoning and critical analysis
• The ability to identify and solve unstructured problems which may be in unfamiliar settings
	Cognitive Analytical Skills:
	
	• Accessing, evaluating and managing information from multiple sources
	• Creating a research plan with the aim of developing appropriate evidence
	• Using evidence to support reasoning and conclusions
	• Assessing arguments and considering evidence against set criteria
	• Identifying faults in arguments and gaps in evidence
	• Structuring problems; specifically to the extent of:
	    o Identifying issues in organizational contexts
	    o Generating and validating solutions for complex problems
	    o Prioritising and trading off solutions to complex problems
	• Operating in unstructured situations with elements of risk and uncertainty

	Cognitive Appreciative Skills: • Filtering information in complex problems to identify critical factors • Understanding time constraints and relative speed of prioritisation in an organisational context • Employing a sense of perspective in over-viewing situations and issues • Demonstrating an understanding of sensitivities to change • Appreciating the point at which assistance and more expert help is required

	• Applying a sceptical and critical approach to situations • Weighing alternative views in testing the validity of ideas in practice • Responding to professional demands by demonstrating a sense of readiness and anticipation • Handling more than one task at a time • Responding to revised expectations and exceptional circumstances • Thinking laterally in a business context • Applying the concept of materiality to all professional actions
Behavioural Skills	
Personal Skills: • Self management • Initiative, influence and self learning • The ability to select and assign priorities with restricted resources and to organize work to meet tight deadlines • The ability to anticipate and adapt to change • Considering the implications of professional values, ethics and attitudes in decision making • Professional skepticism	**Personal Skills:** • Displaying a personal integrity and developing a sense of professionalism • Displaying an enquiring and questioning mind • Demonstrating an even handed and tolerant approach • Demonstrating an open minded and adaptable approach to business problems • Demonstrating independence of thought • Persevering in enquiry • Thinking creatively • Working autonomously • Applying the concept of lifelong learning • Handling pressure • Understanding the impact of pressure on others
Interpersonal and Communication Skills: • Work with others in a consultative process to withstand and resolve conflict • Work in teams	**Interpersonal Skills:** • Listening attentively to others • Presenting orally in a clear and concise style

• Interact with culturally and intellectually diverse people • Negotiate acceptable solutions and agreements in professional situations • Work effectively in a cross-cultural setting • Present, discuss, report and defend views effectively through formal, informal, written and spoken communication • Listen and read effectively, including a sensitivity to cultural and language differences	• Presenting in writing in a clear and concise style • Communicating complex matters in a clear and concise style • Persuading recipients of communication of problem analysis and recommendations • Empathising with colleagues and customers • Collaborating with peers • Learning from more experienced colleagues • Developing a negotiation in a clear and fair manner • Exercising authority • Understanding the importance of team structures

Integrative and multi-disciplinary

Organisational Skills: • Strategic planning, project management, management of people and resources and decision making • The ability to organize and delegate tasks, to motivate and develop people • Leadership • Professional judgement and discernment	**Organisational Skills:** • Setting planning and reviewing objectives • Understanding the needs of new customers and clients (internal and external) • Demonstrating the importance of best practice solutions • Understanding and working within an employer's organisational framework • Planning and prioritising work to meet their employer's deadlines • Planning, managing and controlling projects to their employers guidelines and standards • Appreciating the culture of their employer • Demonstrating an understanding of the processes and impact of globalisation • Documenting decisions and actions

• A sound technical knowledge of the specific subjects of the curriculum
• Can apply technical knowledge in an analytical and practical manner
• Can extract from various subjects the knowledge required to solve many sided or complex problems
• Can solve a particular problem by distinguishing the relevant information from
	• Applying knowledge from different service areas; specifically to the extent of:
	    o Analysing problems in a multi-discipline environment
	    o Identifying a range of solutions from problem analysis
	    o Developing and presenting recommendations which combine

the irrelevant in a given body of data • Can in multi-problem situations identify the problems and rank them in the order in which they need to be addressed • Appreciate that there can be alternative solutions and understand the role of judgement in dealing with them • Can integrate diverse areas of knowledge and skills • Can communicate effectively with users by formulating realistic recommendations in a concise and logical fashion • Can identify ethical dilemmas	technical skills • Conceiving, designing, planning and implementing a project requiring multidiscipline skills • Critically analysing evaluating and synthesising new and complex ideas • Combining cognitive and behavioural skills to communicate to a specialist and non-specialist audience

Ethics, values and attitudes

Nature of ethics: • Differences of detailed rules-based and framework approaches to ethics and their advantages and drawbacks • Compliance with fundamental ethical principles of integity, objectivity, commitment to professional competence and due care, and confidentiality • Professional behaviour and compliance with technical standards • Concepts of independence, skepticism, accountability and public expectations • Ethics and the profession: social responsibility • Ethics and the law, including the relationship between laws, regulations and the public interest • Consequences of unethical behaviour to the individual, to the profession and to society at large • Ethics in relation to business and good governance • Ethics and the individual professional accountant: whistle blowing, conflicts of interest, ethical dilemmas and their resolution	**Business Ethics:** • Explaining the nature of ethics and its significance in the business environment • Identifying and explaining the consequence of unethical behaviour to the individual, the profession and society • Approaching decision making using an ethical framework • Developing arguments, having first appreciated the perspective of all other parties in a range of ethical situations
Commitment to:	**Professional Ethics:**

• The public interest and sensitivity to social responsibilities
• Continual improvement and lifelong learning
• Reliability, responsibility, timeliness courtesy and respect
• Laws and regulations
	• Demonstrating an understanding of the public interest
	• Demonstrating social responsibility
	• Understanding the importance of contributing to the profession
	• Demonstrating an appreciation of the ethos and culture of the accountancy profession
	• Describing and presenting the content of the International Code of Ethics and National adaptations where applicable
	• Applying the Code of Practice; specifically to the extent of complying with the fundamental principles of
	    o Integrity
	    o Objectivity, incorporating conflicts of interest and independence
	    o Professional competence and due care
	    o Confidentiality
	    o Professional behaviour
	• Exercising ethical judgement in a complex situation with a range of alternative actions

Appendix 2 - Professional Training Programmes

Professional Body	Entry requirements	Work-experience requirements	Final admitting exam	Areas of interest	Areas of interest for follow up
CPA Australia **(CPA Australia)**	Degree with ≥60% accounting or business elements	3 yrs supervised or mentored experience	Case-based		**Case-based final admitting exam** **Competency developing log book of work-experience**
Institute of Chartered Accountants in Australia **(ICA Australia)**	Relevant degree or non-relevant degree holders can undertake conversion course or sit entrance exam	3 years mentored	5 core examinations	Final assessment is over 5 modules – 4 technical assessed by exam after which 1 non-technical module is assessed over 2 projects and a focus session	**Non-technical module is final assessment – Ethics and Corporate Governance – 20% project 1 report** **50% project 2 case study** **30% focus session role play and general discussions individual and team.**
Certified General Accountants		2 years	2 core examinations		

Canada (CGA Canada)			and + 2 electives		
Canadian Institute of Chartered Accountants **(CICA)**	Relevant degree	30 months with written evaluation of performance	3 exams papers part of Uniform Evaluation 1x5 hr; 2x4 hr		**Competency maps**
Society of Management Accountants of Canada **(CMA Canada)**	Relevant degree	2 years assessed on reports provided by employers	6 exams		**Interpersonal skills are tested by means other than examination**
Chamber of Auditors of the Czech Republic (CACR)	None .	3 years	9 written and one oral examination	Professional title of 'auditor' protected by the Act on Auditors, the education program is governed by this act.	
Ordre des Experts-Comptables **(OEC)** **France**	Diploma in higher accounting studies (DESCF) required before formal training period can begin,	3 years – monitored by a qualified professional	Final – a thesis, written and oral exams	8 years for whole curriculum. Degrees and professional content all prescribed by law and overseen by the Ministry of Education	**Practical experience assessment - written and oral** **Thesis**

	Bachelor (DCG) and Masters DSCG) degree both required.				
Institut der Wirtschaftsprüfer in Deutschland (IDW)	Fixed by law University degree – more commonly at Bachelor and Master level.	3 years before sitting the final exam	Formal final exam of professional competence	In house education program and commercial companies Developing model curricula for degree programs	
Hong Kong Institute of Certified Public Accountants (HKICPA)	Recognised accountancy degree	3 – 5 Years Depending on academic background -3 years with degree -4 years with approved accountancy diploma -5 years holders of other academic qualification	Final exam - practical case questions and essay type questions	Uses of multi-disciplinary case studies	**Competency based framework**
Chamber of Hungarian	University degree	3 years of professional	Final examination –	Accountancy sector regulated by	**Oral and written final examination**

Auditors (CHA)	Followed by three years in the 'auditors education program' – three years duration	experience + 3 years practice within a mentor system following the auditor's qualification	oral and written	law. The Chamber Act	
Institute of Chartered Accountants of India (ICA India)	PE-2 level to be passed before training can commence Computer training	3 years	Final examination of professional competence	Entry level test – Common Proficiency Test (CPT) Proposed to replace current system Ca request a period of training in industry	**Cannot become a member until a program on general management and communication skills has been followed**
The Institute of Chartered Accountants in Ireland **(ICAI)**	University degree not required, school leavers enroll with icai and complete level 1 with AIT	3-51/2 years depending on entry level qualification – 3yrs masters level 51/2 years school leaver			**Web based CA Diary of Professional Development to be completed during training** **A Personal Computing for Accountants (PCA) assessment test must be passed for acceptance to membership**

Japanese Institute of Certified Public Accountants (JICPA)	University degree not required	2 years - mentored	Final exam – MCQ, and if passed then essay tests over two days, then progression to the 3 year professional education program	Accountancy sector regulated by law 3 year professional education program but 2 years practical experience	**Final exam – MCQ, and if passed then essay tests over two days.** **Successful candidates then progress to the 3 year professional education program**
Institute of certified Public Accountants of Kenya (ICPAK)	Minimum high school ay grade C+, followed by 'academic course of instruction'	Yes if wishing to engage in independent practice otherwise not require - likely to change	Final examination of professional competence + prescribed program of professional education	Legal regulation – Accountants Act	
Malaysian Institute of Accountants (MIA)	Membership of other professional bodies Accredited degree held from local university	Yes	MIA Qualifying exam	MIA is a regulatory body not a professional body Anticipating major future development in professional training and practical training.	
The Malaysia Institute of Certified Accountants (MICPA)	Recognized degree or diploma at tertiary level. General education requires a conversion course to be undertaken	3 years supervised	Final exam of professional competence Integrative case study		**30% of final assessment takes place in workshops**

Insituto Mexicano de Contadores Públicos, A.C. (IMCP)	University degree, includes thesis and an oral examination in order to obtain professional title	3 years	Final exam of professional competence after practical training	Professional certificate issued by university + professional licence issued by government on graduation with accountancy degree	
Royal NIVRA (NIVRA) **The Netherlands**	**University degree but also an 8 year part time university program** **Degree to be in accounting or business economics**	**3 years**	**Final exam – theoretical and practical, both parts requiring a separate thesis to be written and defended**	**Professional education split between universities and NIVRA. .Professional education can also be taken at post graduate level at university and combined with practical training.**	**Both practical experience and educational programme require the submission of a thesis.**
New Zealand Institute of Chartered Accountants (NZICA)	4 year academic programme	2 years minimum	Final exam- professional competence	Professional training provided by NZICA and Universities	
Institute of Chartered Accountants of Pakistan **(ICAP)**	PPT – pre entry proficiency test or qualify for exemption through holding a University degree	3-5 years	Final – 8 papers		**Student can request a period of training in industry during training period.** **Developing student forums**

Institute of Cost and Management Accountants of Pakistan **(ICMAP)**	Entry test or qualify for exemption through holding a University degree	3 years under supervision of member	Formal exam		**Planning to move all exams to be computer based** **Presentation and communications skill, case studies and panel discussion to be introduced**
Accountants Association in Poland (AAP)			AAP qualification not internationally recognized		
National Chamber of Statutory Auditors (KIBR) Poland	University degree	3 years (2 years supervised by an auditor which can only start after 1 years practical experience and having passed 7/10 professional exams) after which the final exam can be sat	Final exam – oral and tests the experience gained during practice as well as theoretical knowledge		
Institute of Professional Accountants **(IPA Russia)**	University diploma or practical experience	3 or 5 years, depending on entrance level and past experience – recognized through workbook	Final exam – recorded (75%) and oral (25%) response MCQ, case studies, technical questions		**Workbook of practical experience**

Saudi Organization for Certified Public Accountants (SOCPA) Saudi Arabia	4 year undergraduate degree with at least 30 credits in accounting,, alternatively 30 accounting credits can be added	Yes – with licensed practical trainer.	Final exam tests theoretical knowledge.	Does not comply with IFAC educational standards Government issues the certificate to practice	
South African Institute of Chartered Accountants (SAICA)	No admission requirements before the start of practical training.	3,4,or 5 years depending on level of education of trainee.	Final exam – 'deemed to be a test of professional competence to the extent possible in a written examination'	Shortage of adequately experienced qualified accounting lecturers 'revisiting competencies' anticipating a change in educational/training process	
Insituto de Auditores-Censores Jurados de Cuentas de Espana **(ICJCE)**	No admission requirements before the start of practical training.	3 years – no requirement on practical training content.	Final exam - theoretical knowledge. Practical exam – case studies, open questions and MCQ		**No requirement on practical training content.** **Practical examination – case study**
Főreningen Auktoriserade Revisor Sveriges Revisors Samfund (FAR SRS)	3 or 4 year undergraduate degree in finance and accounting	3 years for approved PA 5 years for authorized PA Tested at final	Final exam tests theoretical knowledge	Government provides the exam	

Sweden		examination			
Union of Chambers of Certified Public Accountants (TURMOB) Turkey	4 year undergraduate degree, entrance exam before 2 years practical experience.	2 years under supervision of a member	Final exam taken after completion of 2 year practical training	1989 legal recognition of accounting profession Entrance requirements expected to change	
Association of Chartered Certified Accountants (ACCA) **UK**	At least 18 years and hold the minimum requirements for acceptance into a degree course. Higher qualifications attract exemptions	Minimum of 3 years before, after or during examinations, in any employment sector.	Final exam – 3 core papers + 2 papers from 4 options	Increase in demand for accounting qualifications anticipated to include more generalist subjects and more specialists areas.	D**istance learning courses** **Key skills are examined as part of the written examinations and training programmes.** **Standards of competence laid down by ACCA in student training record.**
Chartered Institute of Management Accountants (CIMA) **UK**	None	Minimum 3 years	Test of Professional Competence – A – Record of skills development requires 50/75 B Case-study exam preseen, preparatory work, unseen exam		**Career Profile – record of skills development** **New online learning resource for complete syllabus**

			work requires 25/50		
Chartered Institute of Public Finance Accountants (CIPFA) **UK**	2 * A-levels or equivalent Over 21 mature student and over 25 senior student exempt	3 years – IPDS portfolio (includes oral presentation) Fast track for senior manager through Warwick Business School (2 years)	Test of Professional competence		**Assessment of IPDS through interview**
Institute of Chartered Accountants in England in Wales (ICAEW) **UK**	University admission requirements 90% trainees have university degrees.	3 years	Intergrated advanced case study examination,	New programme of training and assessment due to begin in 2007 – *** check it out ***	**Structured training in ethics** **Case study examination**
Institute of Chartered Accountants of Scotland (ICAS) UK	Fully accredited degree 2% take alternative route	3 years –	Final exam – 50% technical, 50% communicative in a case study format	Attendance at ICAS classes compulsory Development of stand alone ethics module.	**3 years work experience monitored through achievement log of competences** **Case study**

American Institute of Certified Public Accountants (AICPA) **USA**	Minimum – bachelor degree in accounting and a total additional 30 hours to include 24 hours of upper level accountancy and 24 hours of business including business law.	1 year but in almost all jurisdictions 2 years required – usually 1-2 years after degree.	Final exam	Professional education provided by universities. Methods of monitoring varies from state to state.	**Competence based**

Shaded areas show areas of special interest to follow up.

Appendix 3 - Questionnaire

There are six sections to this questionnaire. Please answer all sections

Section A

Brief overview of non-technical skills development and assessment

This section deals with a brief overview of how non- technical skills are developed and assessed within your professional training programme. We have defined a professional training programme for the purposes of this study to include both education (the behavioural process of learning that applies to the whole person rather than specific skills, Bloisi, 2007) and training (the process of change used to develop specific skills, usually for a job, ibid) under the jurisdiction of your professional body. Hence it will encompass all aspects of the professional development prior to admission of membership and is likely to include academic and work-based learning irrespective of where the learning or skills development takes place.

QA1. The following table identifies the requisite skills as defined by IFAC in IES3 and IES4. Can you please briefly describe within each of the **generic groupings** how each of these skills are developed through the professional training program associated with your professional body.

QA2. In addition, can you please identify against each **individual skill** where the particular skill is assessed within your professional training programme, for example, work-based achievement log, multidisciplinary case-study, oral examination, final level core examinations etc.

Intellectual Skills	Development (please briefly describe how each grouping of skills is developed)	Assessment (please identify where each individual skill is assessed if relevant)
Ability to locate, obtain, organise and understand information from human, print and electronic resources		
The capacity for enquiry, research, logical and analytical thinking, powers of reasoning and critical analysis		
The ability to identify and solve unstructured problems which may be in unfamiliar settings		
Personal Skills		
Self management		
Initiative, influence and self learning		
The ability to select and assign priorities with restricted resources and to organize work to meet tight deadlines		
The ability to anticipate and adapt to change		
Considering the implications of professional values, ethics and attitudes in decision making		
Professional skepticism		
Interpersonal and Communication Skills:		
Work with others in a consultative process to withstand and resolve conflict		
Work in teams		

Interact with culturally and intellectually diverse people		
Negotiate acceptable solutions and agreements in professional situations		
Work effectively in a cross-cultural setting		
Present, discuss, report and defend views effectively through formal, informal, written and spoken communication		
Listen and read effectively, including a sensitivity to cultural and language differences		
Organisational Skills		
Strategic planning, project management, management of people and resources and decision making		
The ability to organize and delegate tasks, to motivate and develop people		
Leadership		
Professional judgement and discernment		
Integrative and Multi Disciplinary Skills		
A sound technical knowledge of the specific subjects of the curriculum		
Can apply technical knowledge in an analytical and practical manner		
Can extract from various subjects the knowledge required to solve many sided or complex problems		
Can solve a particular problem by distinguishing the relevant information from the irrelevant in a		

given body of data		
Can in multi-problem situations identify the problems and rank them in the order in which they need to be addressed		
Appreciate that there can be alternative solutions and understand the role of judgement in dealing with them		
Can integrate diverse areas of knowledge and skills		
Can communicate effectively with users by formulating realistic recommendations in a concise and logical fashion		
Can identify ethical dilemmas		
Ethics Values and Attitudes		
Differences of detailed rules-based and framework approaches to ethics and their advantages and drawbacks		
Compliance with fundamental ethical principles of integity, objectivity, commitment to professional competence and due care, and confidentiality		
Professional behaviour and compliance with technical standards		
Concepts of independence, skepticism, accountability and public expectations		
Ethics and the profession: social responsibility		
Ethics and the law, including the relationship between laws, regulations and the public interest		
Consequences of unethical behaviour to the individual, to the profession and to society at large		

Ethics in relation to business and good governance		
Ethics and the individual professional accountant: whistle blowing, conflicts of interest, ethical dilemmas and their resolution		
Commitment to the public interest and sensitivity to social responsibilities		
Commitment to continual improvement and lifelong learning		
Commitment to reliability, responsibility, timeliness courtesy and respect		
Commitment to Laws and regulations		

Section B

Entry requirements for professional training

This sections deals with the entry requirements set by your professional body in order for a student to gain access to the professional training programme under your jurisdiction, even if this is delivered externally.

QB1.   Do you require candidates who apply for your professional training programme to have an accountancy related degree?

Please tick relevant box

Yes we only accept trainees onto our programme who have an accountancy related degree	No we accept trainees from any degree background or equivalent	No there is no requirement for trainees to have a degree or equivalent – please go to question B6.
☐	☐	☐

QB2.   Do you assess non-technical skills development in the accreditation of accountancy related degrees into your professional training programme?

Please tick relevant box   Yes ☐   No ☐

QB3.   If yes, please describe what you look for in terms of non-technical skills development in the accreditation process?

QB4.   If candidates who apply to your professional training programme are graduates or their equivalent (irrespective of discipline) do you assume a base level of non-technical skills development?

Please tick relevant box   Yes ☐   No ☐

QB5.   If yes, what assumptions are made about the capability level for non-technical skills in graduates or their equivalents?

QB6.   If you accept candidates onto your professional training programme who have not experienced a university education (or its equivalent) what development programmes are put in place to enhance the trainees' non-technical skill capabilities in the degree equivalent stages of the professional training programme?

QB7.   Do you attempt to assess any non-technical skills acquisition that your professional training programme has developed as outlined in QB6 above?

Please tick relevant box   Yes ☐   No ☐

Please explain how you do this?

Section C

Professional education and training – the academic element

This section deals specifically with the academic element of the professional training programme as formally delivered by your professional body, a commercial training provider or by a university.

QC1.   At what stage of the professional training programme are non-technical skills developed and assessed?

Please tick the relevant boxes

	Introduction and coverage of non-technical skills development		Assessment of non-technical skills	
	Developed internally by professional body	*Developed externally by other education provider*	*Assessed internally by professional body*	*Assessed externally by other education provider*
Introductory stages for non-graduate or equivalent entry				
Early stages for non-relevant graduates				
Intermediate level for all entrants				
Final admitting level				

QC2.   Does your professional training programme (irrespective of whether this is delivered externally or internally by your professional body) include any specific courses directly targeted at developing non-technical skills?

Please tick relevant box   Yes ☐   No, then please go to question C6 ☐

QC3.   If yes, please provide additional information in relation to these courses, such as content, format, stage etc.

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QC4.   Are these specific non-technical skill development courses assessed in any way?

Please tick relevant box   Yes ☐   No, then please go to question C6 ☐

QC5.   If yes, please provide additional information

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QC6.   Does your professional training programme (irrespective of whether this is delivered externally or internally by your professional body) embed non-technical skills development into the delivery of individual courses or modules?

Please tick relevant box   Yes ☐   No, then please go to section D ☐

QC7.   If yes, please provide additional information in relation to these courses or modules, such as content, format, stage etc.

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QC8.   How are these skills then subsequently assessed?

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Section D

Professional education and training – the practical experience element

This section deals specifically with the work-experience element of the professional training programme as provided by the employing firms of professional accountancy trainees.

QD1.   Do you require trainees to undertake a period of practical experience?

Please tick relevant box   Yes ☐   No, then please go to section E ☐

QD2.   If yes, how many months do trainees need to undertake in the workplace to satisfy your requirements?

Please enter the number of months ☐ Months

QD3.   Is this work experience assessed?

Please tick relevant box   Yes ☐   No, then please go to question D5 ☐

QD4.   If yes, please give a brief description of how this is undertaken and who has the responsibility for the assessment. We would be very grateful if you could also supply us with any documentation, such as an achievement log, for example, that is used to monitor and assess work experience.

QD5.   If the work experience is not assessed, have you considered assessing the experience?

Please tick relevant box   Yes, please go to question D7 ☐   No, please go to question D6 ☐

QD6.   If you have answered no then please explain your rationale for not considering this option.

QD7.   If you have answered yes then please explain your rationale for continuing not to assess work-place performance.

Section E

Final assessment

This section deals specifically with the final assessment requirements prior to admitting any individual into your professional body membership.

QE1.   How is you final assessment structured and what is the indicative weighting between technical and non-technical skills?

Please complete all the relevant boxes

Type of assessment	No of papers taken (if applicable)	No of hours per assessment instrument or paper (if applicable)	% weighting technical	% weighting non-technical
Multidisciplinary case-study only				
Multidisciplinary case-study combined with other papers				
Core papers				
Optional papers				
Oral				
Thesis				
Other (please specify)				

QE2.   If you do not assess by way of a multidisciplinary case-study, please explain how you test the ability to integrate and apply information across a variety of subject areas.

QE3.   Do you use any other form of final assessment of relevance to non-technical skills apart from either the formal examinations as highlighted above or work-based assessment which was discussed in Section D.

Please tick relevant box   Yes, please go to question E4 ☐   No, please go to section F ☐

QE4.   If yes, the please describe these assessment instruments in the space below.

Section F

Reflective practitioners

There is an increasing emphasis in the educational literature about the benefit of developing a reflective capacity with professional accountants as this is an essential element of professional judgement, ethical awareness and learning to learn. This section deals with the development of such a capacity within your professional training programme.

QF1.   Do you try and develop the professional accountancy students' reflective capacity during their professional training programme?

Please tick relevant box   Yes, please go to question F2 ☐   No, please go to end of questionnaire ☐

QF2.   If yes, then please describe when, where and how your professional training programme attempts to do this.

Thank-you very for much for the time and effort that you have taken to complete this questionnaire. Your contribution is greatly appreciated.

Please   send   completed   questionnaire   to   e.gammie@rgu.ac.uk

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