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Competence-based approaches to the assessment of professional accountancy training work experience requirements: the ICAS experience

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Abstract

Most professional accountancy bodies' qualification processes encompass three components: a prescribed programme of professional education, some form of work experience and a formal final examination to determine professional competence. IFAC (2003a) suggest that purely theoretical and knowledge-based education does not meet the needs of all employers. Thus professional bodies are encouraged to find ways to deliver and assess relevant competences in the most appropriate manner. Despite educationalists suggesting that performance measurements based on direct observation within the work place are more effective at measuring competences than traditional paper based examinations, assessment strategies within the accountancy domain remain conservative. The Institute of Chartered Accountants of Scotland (ICAS) was one of the first professional bodies to introduce a competency-based approach to work based assessment in 1999 and subsequently undertook a review of the process in 2004. The data collected for the review was undertaken by way of a questionnaire to authorised training offices, in depth interviews with employers and discussions which emanated from a Working Party which included internal ICAS employees, an academic and a representative from a large accountancy firm. This paper presents the findings of the review, discusses the pertinent issues in relation to work based assessment and outlines the changes that were made to the competency-based approach adopted by ICAS. It concludes with recommendations for future practice.

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Competence-based approaches to the assessment of professional accountancy training work experience requirements

Introduction

'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' (International Federation of Accountants (IFAC), 2003a, p.124-125).

This quotation emphasises the role professional accounting educators have to deliver an educational programme which develops competences relevant to the 21st century (Diamond, 2005). It also emphasises the need to assess these competences to determine whether or not an individual is deemed competent to practice as a professional qualified accountant (Gonczi, 1992; Eraut, 1994; Jeans, 2002; IFAC, 2004b; POBA, 2005).

It is widely acknowledged that the diversity of work that qualified accountants perform today has increased (AAA, 1998; Albrecht and Sack, 2000; Elliot and Jacobson, 2002; Howieson, 2003). This has impacted on the competency requirements of a newly qualified accountant, as evidenced by International Education Standards (IES) 2, 3 and 4 (IFAC, 2003a). Hence, any accounting educational process needs to develop the requisite knowledge, skills, abilities and attitudes (Jarvis, 1983) within a context of realistic professional tasks (Hagar et al., 1994) which are transportable within a constantly changing environment (Matthews and Candy, 1999; Albrecht and Sack, 2000; Lysaght and Altschuld, 2000; Raelin, 2000; Helliar and Bebbington, 2005; McPhail, 2006).

Despite a growing intent to secure greater harmony across various national professional educational domains (Humphrey, 2005) there are currently several routes to becoming a professionally qualified accountant, which vary quite significantly dependent on institution and country (FEE, 2002; Karreman, 2002). However, some commonality exists due to the fact that professional training usually follows a

prescribed programme of professional education, some form of work experience and a formal final examination of professional competence (Karreman, 2002). Thereafter, differences in the provision of classes, length of work experience and assessment strategies are apparent (Lines and Gammie, 2004).

One major area of difference relates to the determination or assessment of competence in the workplace. Assessing whether individuals are competent involves collecting evidence and making judgements based on performance criteria under conditions as realistic as possible (Jessup, 1991). The majority of institutions simply recognise 'appropriate' work experience if a potential member undertakes work in particular areas under the supervision of a qualified member, with no systematic approach to the assessment of these skills (Hyland and Johnson, 1998; Karreman, 2002). Therefore, despite the recommendation of IFAC in IES 5 (IFAC, 2003a) that some competences are likely to be more easily acquired through practical experience and that member bodies must have in place assessment procedures to ensure that candidates are appropriately qualified, (IES6, IFAC, 2003a), very few bodies attempt to assess competence in the workplace. The Institute of Chartered Accountants of Scotland (ICAS) and the Institute of Chartered Accountants of New Zealand (ICANZ) are arguably leading the field in this area (Lines and Gammie, 2004).

An issue for programmes of professional accountancy training is the diversity of work experience that potential members may undertake during their period of training. This diversity is evidenced from an inter-institution perspective, whereby a potential member may obtain all their work experience with a management accounting environment with a body such as the Chartered Institute of Management Accountants (CIMA) or within a professional accountancy office environment regulated by a body such as ICAS. However, there may also be intra-institutional diversity. Candidates training with ICAS, for example, can either train with a small firm (1-3 partners), medium firm (4-10 partners), large firm (11+ partners), multinational accountancy firm (Big 4) or a Training Outwith Public Practice (TOPPS) employer, with each category offering different work experiences.

Notwithstanding these variations in the available work experience available to potential members of professional accountancy institutes, educationalists support the

notion that performance measurements based on direct observation within the workplace are better at measuring vocational skills than traditional paper based examinations (Curry, 1995; Wolf, 1995; French and Coppage, 2000; Stolowy, 2005). Hence work based assessment is more valid in the determination of competency to practice as a professional (Eraut, 1994; Beitler, 1999a; Illott and Murphy, 1999; Lines and Gammie, 2004).

Thus, greater emphasis is being placed on the role of practical work experience in the education and training of professional accountants, and irrespective of any associated difficulties, professional accountancy bodies need to consider both implementing and assessing work-experience in the training of their members.

This paper reviews the development of a competency based approach to work based assessment within ICAS. It outlines the main changes which have occurred since the introduction of a competency-based approach to work experience in 1999, reports on an internal review of the system undertaken within ICAS in 2004/05 and highlights the changes that ICAS made to its competency based approach following the review. Such a comprehensive review of a professional body's work experience requirements and associated assessment should offer new insights into the issues inherent in competence-based approaches from their application first-hand and provide other professional bodies with valuable material from which to implement their own method of developing and assessing competence in the workplace.

The paper will discuss the extant literature, before outlining the development of the competency-based approach at ICAS. The method of collecting data used in the ICAS internal review is then outlined, before the analysis is presented and the resulting changes to the system highlighted. The paper will conclude with recommendations of pertinence to all professional accountancy bodies.

Literature review

Introduction

Prior to the introduction of National Vocational Qualifications (NVQs) in the United Kingdom in the early 1980s, learning was only recognised when it took place in a formal educational setting and assessed in a traditional manner (Thomson, 1995). Despite this competency approach being deemed relevant for further investigation by all of the major accountancy bodies in the UK in the early 1990s, only the Association of Accounting Technicians adopted the formal NVQ route. The other UK bodies, in line with many educationalists, questioned the applicability of such an approach at the professional level (Eraut, 1994; Hyland and Johnson, 1998; Purcell, 2001; Hagar and Gonczi, 2002) but responded in part by independently defining their own standards of professional competence (Thomson, 1995).

In the context of professional accountancy training, competence is defined as '*being able to perform a work role to a defined standard with reference to real working environments*' (IFAC, 2003b, p.12) and hence links educational goals with professional practice (Boritz and Carnaghan, 2003). Thus, a competency framework should ensure that newly qualified accountants can perform the tasks expected of them in practice to a certain standard and accordingly '*are competent to work as professional accountants and to offer their services to the public*' (IFAC, 2003b, p8).

Identification of competences

The starting point for a competency framework is the identification of competences, in particular the determination of the functions and skills that the newly qualified accountant may be expected to demonstrate (IFAC, 2003b). Thus competences have their origins in practice as opposed to their source being an academic one (Garnet, 1997; Raelin, 2000).

This can, however, raise issues as competence standards may be '*limited by what practice is, rather than what it ought to be*' (Boritz and Carnaghan, 2003, p28). Hence it is insufficient to define competence solely from observing the work newly

qualified accountants perform today. Competence standards should also consider what accountants are expected to do in the future (AICPA, 1998; IFAC, 2003b). This requires considerable investment in understanding the nature of standards and ensuring they capture the essence of what is intended (Mitchell, 1990). Hence sufficient resource to effectively carry out the task must be available, which has not always been present in the professional arena (Pottinger, 1980).

Functional analysis versus capability approaches
The next stage in developing a competency framework is to convert the identified skills and functions into statements of competence, which ultimately form the accounting curriculum. It is this stage, which seems to result in the many variations of competency models, (Hyland, 1994; Hagar and Gonczi, 2002; Boritz and Carnaghan, 2003) although there are essentially two extremes: the functional analysis method and the capability method.

The '*functional analysis*' method (or '*output*' approach) is a behavioural method, which describes work place tasks (Hyland, 1994; McLagan, 1997). This type of approach '*specifies performance expectations in terms of outcomes, or what an individual can accomplish, rather than in terms of an individual's knowledge or capabilities*' (Boritz and Carnaghan, 2003, p.4). Functional analysis categorises the work accountants perform into key areas (or roles), which are progressively broken down into units and elements and tend to describe behaviours, outcomes or actions using active verbs and objects (IFAC, 2003b). Performance criteria are also specified for each element. This facilitates the assessment of competence by providing guidance on what behaviours are required to be demonstrated before a candidate can claim to be competent. However, critics of this approach suggest that it can become overly complicated with excessive detail (Eraut, 1994) and that the reductionalist process of breaking competences down into separate tasks and outcomes may distort the original competency (Monjan and Gassner, 1979; Houston, 1985). In addition, by only describing observable tasks, personal qualities are ignored. This may diminish the importance of personal skills which are an essential part of professional development. The functional approach also fails to capture the richness of many occupations which have become professions as a consequence of the cognitive processes of arriving at decisions. Finally, there is the issue of '*transferability*'.

Whilst functional analysis provides evidence of capability, this is context specific and there is therefore a danger that the newly qualified cannot adapt their skills to accomplish similar tasks.

The '*capabilities*' method (or '*input*' approach) outlines the characteristics of the people doing the work and considers what inputs are required to enable the task performance expected of a newly qualified accountant (Eraut, 1994; Boritz and Carnaghan, 2003). This approach attempts to capture the cognitive processes and personal qualities of the trainee accountant as opposed to confirming the ability to carryout certain tasks. However, whilst the capabilities approach is meant to overcome the problem of transferability, Illott and Murphy (1999) question whether individuals can transfer expertise from one context to another. Thus, there is the risk that a student may not be able to perform a task that requires co-ordination of a number of different capabilities. This makes the assessment of capabilities more difficult as they should be assessed collectively. This assessment issue is compounded by the difficulty of assessing thought processes as opposed to task completion.

Competency models currently in operation tend to adopt characteristics of both the functional analysis and capabilities approach, with competences being defined in terms of outcomes, knowledge, skills, attitudes and cognitive abilities (Boritz and Carnaghan, 2003). These hybrid competence approaches have evolved due to the limitations with adopting either a purely functional approach or a purely capabilities approach.

The issues surrounding assessment

The rationale for assessment

The next step in the process should be to assess the defined competences in order to support and thus enhance learning. Assessment probably has a greater influence on how and what students learn than any other single factor (Boud, 1989), as 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 (1994) suggested that among all the contextual factors such as ability, preferred learning style and teaching environment, assessment has the most powerful effect on the learning

process. Accountancy examinations have been criticised in the literature for being synonymous with assessing the ability to succeed in 'examship' (Grey at al., 1997; Lines, 1999) rather than assessing an individual's competence to work as a qualified accountant. Hence the assessment instruments are not constructively aligned with the relevant competencies (Klemp, 1977; Biggs, 1987; Samson et al., 1984) and the profession faces a 'backwash effect[1]' which will stifle innovation (French and Coppage, 2000). Professional accountancy bodies should therefore consider incorporating some form of work based assessment into their overall assessment strategy (Lines and Gammie, 2004), although unfortunately IFAC (2003b) fails to provide any direction as to how this may be achieved.

Assessment methods and sources of evidence

Whilst there are many sources of evidence which can be used to assess competence, Eraut (1994) differentiates between two types, performance and capability. Performance evidence is linked to the functional approach and is obtained directly from the workplace. Capability evidence is described as '*evidence not directly derived from normal performance on-the-job*' (Eraut, 1994, p.200) but which may provide evidence of a potential to perform. This capability evidence also allows assessment of cognitive processes, such as the thought process behind decisions. However, Eraut (1994) stresses the importance of context for assessing capability. In particular, if the assessment context is widely different from the work context, it may not provide appropriate evidence of capability. This makes the design of assessment instruments particularly important.

Eraut (1994) further articulates that in many cases, performance evidence collected via direct observation in the work-place may be the most valid method of assessing competence and sometimes, the only option. Indeed, this view is also supported by Boritz and Carnaghan (2003) who suggest that the work-place is the most appropriate forum for the assessment of competence. This is further articulated by Lines and Gammie (2004) who posit that many of the required competences identified by IFAC in their education standards (IFAC, 2003a) cannot be effectively

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[1] The backwash effect of assessment suggests that the assessment drives both the teaching and learning, therefore if the assessment instruments remain very traditional then the teaching and learning processes will not develop. By changing the nature of assessment, teaching and learning can be moved in the direction perceived to be most appropriate.

assessed anywhere other than in the workplace. Hence professional bodies should consider work based assessment as part of their overall assessment strategy.

However, there is no support in the literature for professional accountancy bodies to adopt the NVQ system of competence whereby most of the evidence is a collection of performance evidence. Instead, it is recommended that the most effective way of assessing competence is by combining types of evidence (Eraut, 1994) in a portfolio type approach (Lines and Gammie, 2004) whereby a strong component of performance evidence, can be supplemented with capability evidence. This provides professional accountancy bodies with the opportunity to assess the wide knowledge base required by the profession, without the requirement to find opportunities in the work place to assess this range of knowledge. However, the assessment of work based learning can be bedevilled with problems.

Competent or not

Assessment of competence tends to be a dichotomous issue of whether a candidate has the ability to perform work to a certain defined standard (IFAC, 2003b) and hence is either competent or not. This has resulted in a binary method of assessment. Candidates are evaluated against either a checklist of detailed competences (Gonczi et al., 1990; Hyland, 1994; Wolf, 1995; Kerka, 1998), often articulated as learning outcomes (Wolf, 1995), or against performance criteria contained within a detailed competency map (Boritz and Carnaghan, 2003). This mechanistic approach (Hamilton, 2005) suggests that only a minimum level of competence is required at a particular point in time (Hyland, 2004). This method also concentrates on current skills achievement as opposed to developing capability for the future (Direick and Dochy, 2001; Hyland, 2004) and precludes the notion of excellence (Peak, 1995). In addition, as very few students appear to fail assessments in a work based environment, the validity of this assessment technique within a professional context has been called into question (Illot and Murphy, 1999).

An alternative to this atomistic, binary method is a graduated scale of assessment where ability may range from novice to expert, with competent lying somewhere in between (Dreyfus and Dreyfus, 1986). Indeed, Eraut (1994) suggests that any assessment system employed within a professional environment should

encourage the development of expertise beyond the minimum requirement, as simply being competent may not be sufficient. Differing levels of competence would then require to be incorporated into the qualifying criteria.

The cost

Any assessment takes up a considerable amount of time, effort and resources by candidates, employers and the professional body with which the candidate is training (Crooks, 1988). However, increasing commercialism within the professional accountancy environment (Willmott and Sikka, 1997), may promote resource efficiency at the expense of educational effectiveness (Lines and Gammie, 2004). Therefore whilst work based assessment may be deemed to be educationally effective, it can be far more resource intensive than collecting capability evidence from a variety of traditional assessment instruments (Hyland, 1994; Illot and Murphy, 1999; Boritz and Carnaghan, 2003; Lines and Gammie, 2004).

The assessor

The effectiveness of work place assessment clearly depends on the individuals who are performing the assessment. Frequent contact, relevant expertise and educational background, appropriate hierarchical proximity and adequate resource are all required to effectively discharge the assessment duties (Ashworth and Saxton, 1992). The reliability of this work based assessment is frequently challenged (see for example, Mansfield, 1989; Hyland, 1994; Johnson, 1995; Wolf, 1995) on the grounds of the interpersonal process. For example, assessors naturally compare one student's ability with another (Ashworth and Saxton, 1992; Johnson, 1995), prejudices and bias can be evident (Rowntree, 1987; Ashworth and Saxton, 1992; Messick, 1994) and task performance by a student may reflect the mentor's capabilities rather than their own (Eraut, 1994). Another assessor related issue is in relation to the multiplicity of roles the assessor may undertake such as counsellor, collaborator and assessor (Boydell, 1986; Smyth, 1986; Wong and Wong, 1987; Hughes, 1999). Not to mention that the assessor is also required to '*discharge conflicting responsibilities to ensure justice to the student, to maintain the value of the qualification and to fulfil the role in the vocational certification process which is entrusted to a profession by society*' (Illot and Murphy, 1999, p75). Hence, any attempt to grade observations other than on a

competent or not competent basis should be treated with caution due to the potential variability in mentor evaluation (Hyland, 1994).

<u>The environment</u>

As discussed in the introduction, the environment in which the competences are developed and assessed vary significantly dependent on professional body and type of employing organisation within that particular body. This variation in work experience is further compounded by the reluctance on the part of training firms to allow trainee accountants to undertake certain tasks, particularly if they are unaided (Eraut, 1994). This is likely to lead to individual differences in the level of competence at specific tasks, which creates problems for the qualifying institution.

One method of ensuring that each trainee receives an appropriate level of work experience is through the development of learning contracts which are used to construct an individual's programme of learning (Brown and Knight, 1994; Rogers and Freiberg, 1994; Beitler, 1998, 1999a, 1999b; Goodwin and Forsyth, 2000). This technique engages the learner as an active participant in the process of learning (Light and Cox, 2001), which results in a move away from teacher directed to competence directed learning (Elshout-Mohr et al., 2002). Indeed, ACCA has embraced this concept with the introduction of their Training Development Matrix which introduces a more target-driven approach requiring trainees to identify, along with their supervisor, performance objectives which they should be able to achieve at a given stage of their development (ACCA, 2006).

A further complication arises when students have no control over the environment they find themselves working in and accordingly this may force the student to behave in a particular way which he/she wouldn't have done in a different context. Thus, is the behaviour driven by the person or the environment (Ashworth and Saxton, 1992)? This results in the risk that students are being judged on events over which they have no responsibility and which have influenced their demonstration of a particular competence.

Summary

Given the increasing importance attached to assessing a wider range of skills and competences (IFAC, 2003b), traditional methods of assessment which rely heavily on paper and pencil tests may not effectively assess the relevant competences required of a professionally qualified accountant in the 21st century. If professional bodies rely on conventional examinations which tend to concentrate on theoretical knowledge to certify expertise, the assessment strategy may be highly suspect and lacking in face validity (Wolf, 1995). However, developing and assessing a competency framework is not without its problems and professional accountancy bodies need to share their experiences in order that the determination of competency to practice shifts from a quantification score to a portrayal of competence (Birenbaum, 1996).

The ICAS approach to the education and assessment of trainee accountants

In order to gain admission to ICAS (the 'Institute'), trainee chartered accountants ('CA Students') are required to pass three levels of professional examinations[2] as well as successfully complete a three year training contract with an approved training organisation (ATO)[3]. ATOs are predominantly accountancy firms, but as mentioned previously, there are also a growing number of students who will train outside of public practice. In order to qualify, CA Students are required to pass all the relevant examinations and meet the Institute's work experience requirements.

Initially, candidates were deemed to meet the Institute's work experience requirements through the completion of a Log Book which was a descriptive record of practical experience outlining the type of work performed, including for example, a description of the industry, the client and the area of work the student was involved with. In addition to the descriptive record, students were required to undertake a minimum number of days in accounting, auditing and one other technical discipline,

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[2] The first level is the Test of Competence (candidates who have successfully completed an accredited degree can be exempt from part or all of this level). The second level is the Test of Professional Skills which covers Financial Reporting, Advanced Finance, Assurance and Business Systems and Taxation. The final level is the Test of Professional Expertise, which is a multi-discipline case study.
[3] There is a requirement that students complete a minimum of 450 days of relevant practical experience during their training contracts.

for example taxation[4]. The Log Book was then signed off by the Training Principal, who was the person with the responsibility within the ATO for the CA Student[5].

The development of the competency framework until 2004

In 1999, following an Education Review by ICAS (Gammie et al., 1995), it was decided that the descriptive Log Book did not capture and record the work experience of the students in a concise manner. In particular, it did not allow effective assessment of whether a student was in fact competent. Thus, the Institute moved in the direction of a competency model, deeming this the most effective way to move the training and education of its students forward and introduced the Achievement Log. Whilst CA Students were still required to record their number of days of work experience during their training contract, the emphasis shifted away from achieving a minimum number of days across certain technical areas to achieving a set number of competences in particular areas of work, which are now outlined within the Achievement Log.

The Achievement Log subsequently introduced in 1999 required CA Students to demonstrate competences in four *prescribed* areas, namely Accounting, Information Technology (IT), Communication skills and Personal skills. In addition to these core areas, further competences were required to be obtained in an *optional* area or areas, which were typically audit, taxation or corporate finance. In 2000, the concept of specialist competences was also introduced. The idea behind specialisms was for students to extend their knowledge in one key area as suggested by IFAC (2003b) and was the Institute's response to the options versus core debate which continually rumbles on the agenda of many professional accountancy institutes (see for example, Paisey and Paisey, 2006). This requirement to display specialist competency within a particular area of work provided the opportunity for CA Students to be extended within their particular area of work experience and encouraged students and training firms to focus on where a student was developing a

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[4] The minimum requirements were for 43 days in each of accounting, auditing and one other technical discipline. In addition, those students wishing to obtain registered auditor status post qualification were required to spend 210 days on audit work. This requirement still remains. The 210 days of audit experience is not required for qualification as a CA.
[5] At this time, Training Principals were required to be members of the Institute.

deeper knowledge. It was expected that these specialist competences would normally be achieved in the final year of the training contract.

The Achievement Log also offered further flexibility to students and training firms, in that if the competences initially identified by ICAS were not achievable by the student (due to their exposure to different work experiences), they could be substituted for suitable alternative competences[6]. By designing the Achievement Log in this way, the document was meant to reflect current work practices and students were expected to be competent at what their firms required them to do.

The Achievement Log represented a hybrid approach between the functional analysis and capabilities approaches. The functional approach was utilised for technical areas, such as accounting, IT, audit and taxation. These competences were stated as tasks and were described using active verbs and objects, in line with IFAC's (2003b) guidance. The capabilities approach was utilised for the softer skill competences (communication and personal skills). Competences were still stated using active verbs, but the competences themselves were more generic and referred to personal qualities and the inputs required to enable task performance (Eraut, 1994).

The assessment of competency

The responsibility for completing the Achievement Log rested with the student, who ticked the relevant competency when they considered it had been achieved. Thus the Achievement Log adopted the binary method of assessment. Students were encouraged to complete the Achievement Log on a regular basis, for example at the same time as completing timesheets or staff appraisals. There was an additional requirement for each competency achievement to be dated and an internal reference provided, which was typically a client code or project code, thus facilitating either an internal or ICAS review to ensure that the competency had in fact been achieved. The completed Achievement Logs were required to be reviewed and signed annually by the CA Student's Counselling Member, or if this was not possible, by the Training

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[6] Any alternative competences were reviewed by the CA Student's training firm and agreed as a suitable alternative by the Institute.

Principal[7]. A 'Reviewer'[8] could also review and sign the Achievement Log. The Institute reviewed the Achievement Logs on a periodic basis throughout the training contract[9] to ensure the Achievement Log had been internally reviewed and appropriately signed off and that the student was on track to meet the Institute's work experience requirements.

At the end of the Training Contract, CA Students must have achieved all the relevant competences, which have been appropriately signed off internally. A final review was then conducted by the Institute to ensure that the Achievement Log had been correctly completed before the CA Student was deemed sufficiently competent to be admitted for membership.

Whilst all training must be undertaken within an Authorised Training Office[10] there was no specific training given to either reviewers or students in respect of Achievement Log completion. ICAS therefore relied on the fact that as the internal sign-off must be done by either the Training Principal or Counselling Member, there should be knowledge in the system as to the level required for competency achievement.

The internal evaluation of the system

In August 2003, the Council of the Institute published a strategy document entitled 'Fast Forward to 2010' in which the Institute set out to '*ensure that the overall standard, quality and relevance of the final qualification is preserved*' (p5). The

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[7] Counselling Members are required to be members of the Institute and must be qualified for at least three years. The Training Principal is primarily responsible for the organisation of student training and now may not necessarily be an ICAS member (ICAS, CA Student Guide, 8th edition). These different roles were introduced by ICAS to accommodate firms who wished to train students but did not necessarily have an ICAS qualified member directly involved with the CA Student. Prior to the introduction of these two roles, Training Principals had sole responsibility for the students.

[8] The Reviewer position tends to be filled by a manager or another senior staff member, who may have more daily contact with the student. Thus in the case of large training firms, where one Counselling Member may have responsibility for many students, often the Achievement Logs are reviewed and signed firstly by the Reviewer and then countersigned by the Counselling Member or Training Principal.

[9] At the time of writing, the Institute reviews a sample of first year students' logs, all second year students' logs and all logs will be reviewed at the end of the training contract period.

[10] Before this status is granted, a review is undertaken by ICAS to ensure that the office complies with all the ICAS requirements.

document highlighted the broader skill needs of members and that consideration be given to the balance between assurance and business/management competencies. The Education Department of the Institute was thus tasked with reviewing the balance in the education programme and assessment model between business training and training for audit with the primary focus on the Achievement Log. The Education Department subsequently undertook some research to achieve this aim.

The initial research undertaken by the Education Department was to design and distribute a questionnaire, at the beginning of 2004, to the population of approved training offices (n=111), to be completed by the Training Principals and/or Counselling Members, of which 30 completed responses were returned. Responses were received from all sizes of accounting firm (small (1-3 partners) n=5; medium (4-10 partners) n=10; large (> 10 partners) n=8; 'Big 4' n=4[11]; TOPPS n=3). These responses were at the time of the questionnaire responsible for the training of 75% of the student population. Follow-up face-to-face meetings were subsequently held between the Education Department of ICAS and two medium sized and 2 large accounting firms. A follow-up telephone conversation was also held with one of the 'Big 4' firms and additional email feedback obtained from two other 'Big 4' organisations. The results of this data collection were presented to the Student Education Committee (SEC) of ICAS in July 2004[12].

SEC subsequently recommended setting up a Working Party, which was given the remit to examine competency development and assessment within the ICAS training model and to recommend any necessary changes to the Achievement Log. The Working Party comprised of a representative from a large firm, two Education Department employees who had responsibility for the Achievement Log within the Institute over a number of years, one of whom had undertaken the data collection outlined above[13], and an independent academic who had undertaken research into the development of competences from the student perspective. The Working Party met in December 2004 and January 2005 and presented their findings to SEC in February 2005, who further highlighted areas for consideration. The Working Party addressed

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[11] This includes responses from three of the Big 4 accounting firms and a separate response from the tax arm of one the Big 4.
[12] One of the authors of this paper was the Convenor of SEC at the time of the review
[13] This person is one of the authors of this paper.

these further issues and presented a revised Achievement Log to SEC in July 2005, which was subsequently accepted and introduced for the 2005/06 intake of students.

The following section draws on each of these three strands of data collection. It highlights the main findings from the research undertaken and charts how these findings influenced changes to the Achievement Log. Thus it discusses some of the practical issues inherent in the application of a competency-based approach to the assessment of work experience and outlines the changes that have been made to the Achievement Log in response to the issues identified[14]. Those areas that may remain as areas for concern to the Institute are also highlighted.

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The issues encountered by the application of a competence-based approach to the assessment of work experience

The relevance of the identified competences

The introduction to this paper highlighted the potential problem that the intra-institutional diversity in work experience could present in the determination and assessment of competences across a generic qualification. In particular, the Institute had set itself the challenge of prescribing mandatory competences in such an environment where diversity of work experience is only likely to increase[15], although there was the opportunity for prescribed competences to be replaced where the work experience did not allow students the opportunity to develop the particular prescribed competency set.

One Counselling Member summarised this problem within their firm with the following comment:

> *'Need to recognise that students are streamlined into a specific area (e.g. tax) and so will find it difficult to obtain experience across other areas. Competences relating to other areas should therefore be achievable without having to spend more time on the other area. The*

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[14] Changes have been incorporated into the 2005 version of the Achievement Log.
[15] This is further compounded through the authorisation of more TOPPS employers.

other areas can then be tested in detail through the exams.' Counselling Member, 'Big 4'

This challenge for the Institute was also recognised by the training firms in that there was evidence of resistance to further encompass more prescription. The majority of training firms (n=18) did not want the Institute to prescribe more minimum areas of work experience, with comments such as:

'The different sizes and nature of work performed by accountancy firms differs too much to consider increasing the experience prescribed' Training Principal, Medium accounting firm

'Being more prescriptive may remove some of the choices as students would need to sacrifice certain aspects from their current training to make time to achieve additional competencies.' Counselling Member, Large accounting firm

'The current minimum allows sufficient flexibility for the breadth of organisations, yet maintains the core minimum requirements of an accounting professional' Training Principal, Big 4

The profession provides a wide variety of services to clients and choice should be allowed to continue.' Counselling Member, Small accounting firm

However, there was also support for the contention that CA Students should obtain as much variation as possible during their training contract.

'Should be a broad base of experience in all areas' Training Principal, Medium accounting firm

'A range of experience, not just from one area, is best suited to give a good grounding & understanding.' Training Principal, TOPPS

Thus it would appear that in an ideal world, CA Students should receive exposure to a number of different technical areas as well as gaining experience in the softer skills. Although the reality of the situation was that firms were looking for flexibility with work experience requirements rather than strict imposition of rules from the professional body. This conundrum raised interesting questions for the Institute. Should ATOs have freedom to provide CA Students with work experience that suits their business model or should they have some sort of responsibility to provide CA Students with a broad basis of experience which would be more comparable for each CA Student irrespective of type of ATO? By allowing flexibility within the Achievement Log, were all students receiving appropriate work experience to develop their competences in order to qualify as a Chartered Accountant[16]? Concern was raised that the provision of flexibility was open to abuse by CA Students and ATOs through the substitution of the core prescribed competences:

> '*many students substitute most of the ICAS prescribed accounting competences and these newly defined competences tend to be concentrated on one particular aspect of accounting work, for example preparation of reconciliations or preparation of various disclosure notes*'[17] ICAS employee on Working Party

This called into question whether the Institute was being governed by the work experience offered by firms (Boritz and Carnaghan, 2003) and whether increasing commercialism within the professional accountancy environment (Willmott and Sikka, 1997) was exerting too much pressure on the Institute. After all, training organisations are essentially fulfilling the dual role of providing services to their clients and training of accountancy students. Thus, the Working Party raised the concern that if the curriculum was shaped too much by practice, this could result in too simplistic an educational process and the quality of qualified accountants could diminish. This could have far reaching implications for the accounting profession as

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[16] It would be interesting to elicit both trainee and recently qualified chartered accountant's views on the relevance of their work experience during their training contract and the impact this has on their subsequent career aspirations.

[17] Generally, students substituting competences would substitute three out of the six prescribed competencies in the area of accounting.

this may call into question the elite status currently afforded to chartered accountants. Thus, the Working Party concluded it was important to maintain the role of the professional body in the setting of qualification requirements.

However, this raised a further conundrum – where was the professional chartered accountancy qualification going? How important was 'accounting' to the qualification requirements for becoming a Chartered Accountant, or was the chartered accountancy qualification metamorphosing into a business qualification? Indeed, one Counselling Member commented:

> *'More and more I see a CA as a business qualification in which newly qualified CAs then have a career choice.'* Counselling Member, Large accounting firm

This was clearly something for the Institute to resolve, as the title 'Chartered Accountant' clearly evoked a requirement to be competent at accounting:

> *'Practical experience should be sufficient to ensure that at the end of training contracts all CAs should be able to prepare a set of accounts from source documentation, have an understanding of the basis of the calculation of the tax charge and be able to meaningfully discuss the key performance indicators and the impact of these on the company's results.'* Training Principal, Medium accounting firm

> *'Essential to understand double entry and be able to prepare accounts. Some auditors do not have above skills. Without them there is danger of not fully understanding accounts leading to problems well publicised recently.'* Counselling Member, Large accounting firm

Therefore the Institute accepted the recommendations of the Working Party that all CA Students irrespective of their type of employment should be able to demonstrate core accounting competences in the workplace and so the revised Achievement Log in 2005 continued to prescribe accounting competences, but these

have been categorised into "accounting areas"[18]. Whilst substitution is still permitted, any newly defined competency must be appropriate to that particular accounting area, which ensures a breadth of experience across the different aspects of accounting work and minimises the potential for narrowing the development of accounting competence in the workplace.

As the other core areas contained in the Achievement Log, namely the IT, personal and communication skills competences should be achievable regardless of the training organisation, these competences may not be substituted. Hence, a consistent standard should be maintained across core areas, which the Institute defines as essential to becoming a CA.

However, not only does diversity of work experience present problems with identification of competences, but also in their definition. As one Training Principal highlighted, prescribed competences tend to be set at the lowest common denominator in order to cater for all types of student work experience:

> *'the issue is that "one size fits all" does not work and if these areas are*
> *prescribed they end up being set at a level that is too low or too generic*
> *for them to be meaningful.'* Training Principal, Big 4

This is further demonstrated by comparing the ICAS pre-printed competences with the alternative competences which students and training firms self-define. The alternative competences tend to be more detailed and more narrowly defined, as illustrated in the ICAS Sample Specialist Competencies, Sample Alternative Competencies document (ICAS, 2006a)[19]. Therefore, the result can be an Achievement Log with a meaningless mix of basic and highly detailed competences, with profound implications for the Institute. As one Training Principal commented:

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[18] The accounting areas are: period end adjustments, journal entries, reconciliations, preparation of financial information, understanding financial information.

[19] For example, a sample alternative competency for accounting is *'can the CA student use variance analysis to identify trends and discrepancies in accounting data and interpret/ comment on these accordingly?'* whereas a pre-printed competency for accounting reads *'can the CA student perform analytical review on a set of accounts?'*

'It is not clear that achieving all the requirements of the log will show that someone is a capable accountant.' Training Principal, Big 4

Following the review, the Institute amended the more generic competences in an effort to make them more relevant and challenging. The main changes are tabled at Appendix 1.

Specialist competences

There is great debate within professional accountancy institutes about specialisms and their place in the curricula[20] (Paisey and Paisey, 2006), with many institutes taking the view that students should concentrate on core areas during their training and specialise post-qualification. This proposition was supported by some of the training principals from the view point of specialist competences with comments such as:

'I believe the strength of the CA qualification is to provide a broad spectrum of knowledge across areas within the 3-year training contract. While students can gain more experience in some areas than others and amass a greater depth of knowledge, I do not believe this amounts to a specialism. Specialisms should be developed after qualifying as a CA. The use of 'specialist competences' favours larger firms that departmentalise more and detracts from students gaining a breadth of knowledge. Many of the specialist competences quoted are just extensions of normal work and are better shown as additional competences in a certain area, rather than being considered specialisms.' Training Principal, Large accounting firm

'Training should be an all round training. Plenty of time to specialise at a late date. Makes some students much too limited in some areas.' Counselling Member, Medium accounting firm

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[20] There is an argument that says specialisation should be a post qualification event and that the training period is a time to develop core competences, which then provide the platform for qualified accountants to go on and specialise.

Specialist competences again highlight the intra-institutional diversity in work experience. For example, "specialisation" takes on a different meaning within the different sizes of accounting firm and within a TOPPS environment.

'Although I can appreciate the purpose of the requirement, it is going to be difficult for our students to fulfil. The nature of our Graduation Development Programme is that we expect students to work in 3 or 4 different assignments over the 3 years. As such, it may prove difficult to set 11 distinct competencies in one area although they will have gained a wider variety of business experiences.' Training Principal, TOPPS

'As a smaller firm, students are offered a wider range of experiences than would be obtained within a "Big four" firm. Their specialist competency is general practice.' Training Principal, Medium accounting firm

However, the view of the majority of Training Principals/Counselling Members (n=17) was supportive of specialist competences within the Achievement Log, emphasising the importance of depth of knowledge and variety of work experience:

'This proves the student has the ability to develop a more in-depth knowledge on one particular technical area.' Training Principal Medium accounting firm

'This is encouraging students to take control of their own career at an early stage and removes the 'bland' grouping of newly qualified CAs by allowing unique specialisms.' Counselling Member, Medium accounting firm

'This focuses trainees' attention on what they are actually learning from more advanced work. It also acts as an effective control on firms to ensure trainees get varied work experience'. Training Principal, Large accounting firm

The revised Achievement Log therefore maintained the role of specialist competences as the Institute was of the view that the work-place was an appropriate forum in which to develop specialist skills, particularly towards the end of the training contract.

The assessment of competence

<u>Competent or not</u>

Despite criticisms in the literature about using a binary approach to determine competency (Eraut, 1994; Illot and Murphy, 1999; Hyland, 2004; Peak, 1995; Hamilton, 2005), the Institute's Achievement Log followed a binary approach to assessment, whereby CA Students were simply required to tick off, as and when, they had achieved a particular competence. Criticisms of the binary approach are particularly relevant for specialist competences, given their advanced nature, whereby assessment of different levels of competence may be more appropriate, perhaps similar to the levels used by the Canadian Institute of Chartered Accountants (2006)[21].

Whilst this particular approach did not evoke criticism from the Training Principals, comments received did reflect the potential confusion between the Achievement Log as an assessment tool and the Achievement Log as a recording tool:

> *'Whilst I agree the log effectively records experience I am somewhat sceptical about how much reliance is placed by others on this record.'*
> Training Principal, Small accounting firm

> *'.....our preference was to the older style which allowed students more flexibility to demonstrate their experience in words rather than through checkboxes, reviewing an older style log book allowed us as training principles to gauge the staff members confidence and understanding of the tasks performed rather than just the fact that the task had been performed.'* Training Principal, Small accounting firm

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[21] CICA identify three levels of proficiency, from the lowest (level C) to the highest (level A).

'The problem with the Achievement Log is that it is not as effective as it could be because it does not integrate closely enough with the internal assessments of people's ability or cover as wide a range of competencies as our internal systems'. Training Principal, Big 4

However, without some system of assessment, if the Achievement Log was simply to act as a record of work experience throughout the training period, the importance of the Achievement Log was likely to diminish (Boud, 1989; Tang, 1994; French and Coppage, 2000; Lines and Gammie, 2004). Thus, it is likely that CA Students would not realise the importance of the skills learned through their work experience and firms may not appreciate the role they have to provide their CA Students with the appropriate work experience. Thus, it was decided that the binary system would remain.

This binary system still, however, poses three challenges for the Institute. The first issue is the implication that when a competency has been ticked, this means the student has achieved that competency to the required standard and does not need to re-demonstrate the competency in subsequent periods. This results in a risk that a CA Student may not in fact be competent at the point of entry. The evidence from a review of the Achievement Logs suggested that there was considerable variation between training firms in terms of when competences were ticked. In some cases, the majority of competences were ticked as achieved within the first year of the training contract and in other cases, the majority were not achieved until towards the end of the training contract. While this may simply reflect different speeds of development of CA Students, different types of work experience obtained or different levels of knowledge and experience prior to commencing CA training, it may also be a function of different interpretations of what the required standard should be. This clearly raises issues of consistency between ATOs.

The second issue is the fact that the binary system of achievement is also entirely inconsistent with the concept of continuing professional development (CPD). After qualification, CAs are required to ensure their knowledge and skills are kept up to date by engaging in continuing professional development activities (IFAC, 2004a).

Finally, the third area of concern is in respect of the experiential learning that took place during the training contract and the importance of reflection in what had been achieved to date. The working party were of the opinion that the CA Students and the Training Principals tended to use the Achievement Log simply as a

'*mechanism for meeting the Institute's requirements as opposed to the Log being used as a comprehensive and reflective account of the student's training*' Discussion forum member

and that the

'*Achievement Log should be a reflection of that student's experience and areas of competence*' Discussion forum member.

Therefore the amended Achievement Log introduced a 'reflective statement' which required students to comment on their development to date. The purpose of this statement was to allow students to reflect on their training to date and consider those areas where they have developed skills and any areas that require further skill development. It also provided a forum for students to discuss any ethical issues they had encountered and how these were managed.

<u>The assessor</u>

The Institute's approach to assessing student competence is effectively outsourced to the ATOs, however, the Achievement Log is initially completed by the student and then reviewed (assessed) by the Counselling Member or Training Principal. Whilst the literature has focused on the employer's review and assessment of competence, the Institute's approach for Achievement Log completion is for students to self-assess their achievement of the relevant competence. The ability of students to self-assess their competence at the appropriate level appeared to be a concern of some Training Principals as echoed in these responses:

'The achievement log suffers from an almost complete lack of guidance to students on how to complete the log. There also seems to be confusion in ICAS as to whether the log is designed to be completed by the student and reviewed by TP/CM or to be the responsibility of the training firm. If the student's responsibility, students in 1ˢᵗ & 2ⁿᵈ year especially are not in a position to assess whether they have achieved competencies appropriate to a newly qualified accountant. There is no guidance at all on the completion of the work experience record to ensure standardisation of responses.' Training Principal, Large accounting firm

'Students perhaps get confused by the fact that they have to be demonstrating competences at the level of a newly qualified accountant as it is unclear to them in the early stages of their contract how they will reach this level and what this level actually is.' Training Principal, Big 4

It would therefore appear that some of the Training Principals were calling into question a student's ability to determine whether or not they have achieved a relevant competency and this was further complicated by the system of internal hierarchical review, whereby a number of issues were evident.

First, the hierarchical proximity of the supervisor to the student (Ashworth and Saxton, 1992) may be an issue, as the Counselling Member or Training Principal may not have regular contact with their CA Student, especially in respect of client work. This may be partially overcome by the use of an internal Reviewer although the responsibility for the Achievement Log rests with the Counselling Member or Training Principal and the Reviewer has no specific responsibilities contained within the CA Student Guide.

This problem is exacerbated by the fact that the Reviewer or indeed the Training Principal may not be a qualified accountant[22] and therefore has no personal experience of the process and may lack knowledge about the standard required. It is

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[22] The Counselling Member must have been a member of the Institute for at least three years.

doubtful whether individuals who are not qualified CAs would have the necessary technical knowledge to enable them to assess technical competences and it is also quite possible that an assessor with exemplary technical ability may be deficient in assessing interpersonal or communication skills. A further complication arises with new ATOs or ATOs that recruit few students or recruit intermittingly as individuals tasked with signing off the Achievement Log may not have the same level of expertise and judgement as those individuals from ATOs that take on significant student numbers on a regular basis.

There is also a risk that individuals within training firms may feel under pressure to sign off on the achievement of competences for fear that their ATO status may be removed. Was the student's inability to achieve the requisite level of competence a reflection of the training the student has been provided, such as a lack of adequate opportunities to develop their knowledge and skills or lack of adequate supervision and guidance? Finally, despite the necessity for those responsible for signing off the competency achievement to have the necessary knowledge, experience and expertise to discharge their responsibilities, there was no requirement for training by the Institute and very little guidance. For example, the guidance given in the Institute's Frequently Asked Questions and Guidance publication (ICAS, 2006b) was that '*the competency should be at the level expected of a newly qualified accountant. There should therefore be knowledge, skill or expertise attached to the competency, which a non-professional would not possess.*' (p3).

This lack of guidance, both at the student level and also the assessor level has partially been addressed by the provision of additional guidance provided to CA Students and ATOs subsequent to the publication of the revised Achievement Log, particularly in relation to some of the softer skill competences. Illustrations and exemplars are now provided to both students and ATOs. The Institute also provides presentations to students to assist with completion of the Achievement Log. However, there is scope for further development and the Institute is currently looking for training to take place within ATOs.

The final assessment rests with the Institute, whereby all Achievement Logs are reviewed and ratified. No changes were proposed to this system. However, as the

Institute reviewers simply follow a checklist approach to reviewing Achievement Logs, which concentrates on the identification of missing signatures, dates, internal references and other administrative errors, as opposed to ensuring that consistent and appropriate standards are applied across the variety of work experiences that CA Students encounter, this is also an area for improvement.

Conclusions and recommendations

This paper has outlined the competency approach to assessing work experience adopted by ICAS through the process of an Achievement Log. It has then discussed the findings of an internal review, within the context of issues raised by the educational literature on competency based assessment, which resulted in an amended Achievement Log being introduced in 2005 by ICAS. By recounting a professional institute's experience, the paper has highlighted several areas that need to be considered by professional bodies when developing their own system of competency based assessment, which will now be further articulated.

Professional bodies must be clear about the purpose of work experience, otherwise the competency framework will not work effectively. This was demonstrated by the flexibility offered in the pre-2005 versions of the ICAS Achievement Log, with regard to substitution of competences. In particular, professional bodies must be clear about the role of work experience. Should work experience form an integral part of the qualification process, with the professional bodies setting the requirements and establishing formal assessment practices? Or should work experience still be a part of the qualification process but not necessarily assessed, thereby giving training firms the authority to set training programs independently? Given that assessment has the most powerful effect on learning processes, work experience should be formally assessed as part of the qualification process. Professional bodies must therefore be prepared to set work experience requirements and then put in place mechanisms for ensuring these are met and properly assessed. Clearly this will be a challenge for the professional bodies in view of training firms' preference to set their own training programs for students based on client work. ICAS has been successful in maintaining work experience requirements in the face of considerable pressure from training firms to allow them more flexibility.

Following on from this, professional bodies should also be prepared to prescribe mandatory competences to ensure a core set of skills in all newly qualified accountants. ICAS has effectively managed this through its four core competence areas. The prescription of mandatory competences does however need to take into consideration intra-institutional diversity. Whilst the more generic competences should not present problems for achievement, the research has highlighted potential problems with the achievement of technical competences, such as accounting. Professional bodies adopting this approach should therefore be clear about their required competences but may need to offer flexibility to training firms within an area of competence. ICAS, following the strategic review, has clarified its position by stipulating areas of competence within accounting, but then permitting substitution of competences within each area. This ensures breadth of experience across a technical discipline and at the same time meets the needs of different training environments.

The research has also highlighted the fundamental problem of whether a professional accountancy qualification should require candidates to undertake accounting work experience. The easy way out would be for professional bodies to test accounting competence through the examination process only. However, this would not recognise the importance of work place assessment. Thus the Scottish Institute continues to require accounting competence to be partly assessed in the work place and partly through examinations. Professional bodies should consider the future direction of their qualifications in reaching this decision and whether they still view their chartered accountancy qualification as an accounting qualification or instead as a more general business qualification.

The Scottish Institute has certainly been innovative in its approach and taken considerable steps forward with its Achievement Log, which other professional bodies could learn from. However, to be successful, work place assessment of competence requires the professional body to fully embrace this approach and provide the support infrastructure to enable training firms and students to implement it successfully in practice.

In the absence of a detailed competency map, the risk is inconsistency of assessment between students and between firms and not assessing to the correct standard. If professional bodies chose not to develop a competency map, which are also open to criticism in the literature for being overly mechanistic, there must be other mechanisms in place to assist with assessment.

This research has highlighted the need for professional bodies to be proactive in providing guidance to students and assessors on the definition of competence and how to assess competence. There should be regular communication between and training of assessors to ensure proper application of any competency framework. It is the responsibility of the professional body to provide these discussion forums and to establish regular and constructive communication between the Institute and the work place assessors. In this way, experiences can be shared and best practice established on how to assess competence. It would also provide a forum to discuss the problems associated with work place assessment. Assessors should also be required to provide written comments in the competency record on student development, which the professional body can then monitor.

Professional bodies should consider offering additional guidance to new training firms as they may lack the experience necessary to assess competence. This guidance may take the form of regular visits to the training office and discussion with assessors on what the professional body expects and also reviewing students' Achievement Logs with assessors to discuss the basis for ticking a competency. This may involve looking at the actual work the student performed and looking at internal appraisal forms.

It is also essential for the professional body to have an understanding of the review process that has been carried out by training firms and for the professional body to form an assessment of this process. One approach, would be for ICAS to undertake visits to training organisations and check the competences achieved against the internal work references provided.

Students should also be required to keep a separate record of jobs where they have worked on a particular competence but not yet achieved it to the required

standard. One of the Big 4 accountancy firms has developed an effective way of doing this: they incorporate ICAS competences into their firm appraisals. This is highly effective as it provides a trail back through the development of competence from different work based tasks.

Finally, students and training firms should be required to continually reassess competences during the training contract. Where a student is no longer competent, they should be provided with work experience suitable to re-obtain competence or consideration should be given as to whether the student has achieved alternative competences that may be added to the Achievement Log to meet the minimum requirements.

Appendix 1

Summary of changes to IT, Communication Skills and Personal Skills Competences following Strategic Review

Information Technology

The 2004 Achievement Log identified five competences. These were replaced with six new competences in the 2005 version.

2004 Achievement Log (ICAS, 2004)	2005 Achievement Log (ICAS, 2005)
Is the CA Student able to operate a PC without guidance?	Can the CA Student perform the office duties through application of the IT systems?
Can the CA Student utilise a word processing package?	Can the CA Student apply word processing software in a relevant accounting/ business environment?
Can the CA Student utilise a spreadsheet package?	Can the CA Student apply spreadsheet software in a relevant accounting/ business environment?
Is the CA Student completely familiar with an integrated accounting system?	Can the CA Student effectively use an integrated accounting system or tax package or other work related software?
Does the CA Student comply with the employer's security and control policies?	Does the CA Student comply with the employer's IT security and control policies?
	Can the CA Student effectively utilise internet tools (e.g. internet, Email) in a relevant accounting/ business environment?

Communication Skills

Six out of the seven competences identified in the 2004 Achievement Log remained in the 2005 version, and were supplemented by an additional two competences in the 2005 version. The remaining 2004 competency was transferred to the personal skills section.

2004 Achievement Log (ICAS, 2004)	Additional communication skills competences added to 2005 Achievement Log (ICAS, 2005)
Is the CA Student able to listen effectively?	Is the CA Student able to read effectively?
Has the CA Student demonstrated the ability to ask relevant questions?	Can the CA Student effectively present his/her opinion to others and reach an acceptable agreement with them, in professional situations? (this should also be considered in the context of ethical situations which the student may have encountered?
Is the CA Student able to document work to the office standard?	
Is the CA Student able to complete first drafts of correspondence external to the normal working environment?	
Does the CA Student present information to other members of staff in a clear and concise manner?	
Is the CA Student able to brief, supervise and help develop junior members of staff?*	
Can the CA Student communicate effectively with employees of other organisations, eg clients?	

* this was moved to personal skills competences in the 2005 Log

Personal Skills

Six out of the eight competences in the 2004 Achievement Log remained in the 2005 version. These were supplemented by four additional competences and a competency transferred from the communication section.

2004 Achievement Log (ICAS, 2004)	Additional personal skills competences added to 2005 Achievement Log (ICAS, 2005)
Is the CA Student able to work well with other staff members?	Does the CA Student demonstrate a commitment to continuous learning and improvement?
Can the CA Student manage his/ her time effectively?	Can the CA Student gain the respect of his/her colleagues and client staff?
Is the CA Student able to learn from his/ her mistakes?	Can the CA Student anticipate and adapt to change?
Does the CA Student convey a professional image?*	Does the CA Student develop and maintain contacts, either internally or externally?
Does the CA Student accept responsibility for his/ her own work?	Is the CA Student able to brief, supervise and help develop junior members of staff?***
Does the CA Student act ethically?**	
Does the CA Student identify issues which require to be resolved by a more senior member of staff?	
Can the CA Student use his/ her initiative?	

* This was removed from the 2005 Log on the grounds of subjectivity

** This competency was replaced with an Ethics Statement, which requires students to confirm they have understood and complied with the fundamental principles of the ICAS Professional Conduct for Members Guide for the period under review

*** this was moved from the communication skills competences in the 2004 Log

References

Albrecht, W. and Sack, R. (2000) *Accounting education: Charting the Course through a perilous Future,* Accounting Education Series, Sarasota, FL, American Accounting Association

Alexander, D. (1995) Competence-based learning - an introduction and an overview. *Accounting Education: an international journal,* 4 (1):1-3 .

American Accounting Association (1998) 'The future Viability of AAA Members' Programs'*, Report of the Changing Environment Committee*, Sarasota, FL http://accounting.rutgers.edu/raw/aaa/about/reports/chngenv98.htm

American Institute of Certified Public Accountants, (1998), The Full report – CPA Vision 2001 and beyond: Focus on the Horizon, *Journal of Accountancy,* December, 25-73.

American Accounting Association Future Committee (The Bedford Committee) (1986) Future accounting education: preparing for the expanding profession. *Issues in Accounting Education,* 1 (1):168-195.

American Institute of Certified Public Accountants (1999) AICPA - The core competency framework for entry into the accounting profession [online]. New York: AICPA. Available from: http://www.aicpa.org/edu/corecomp.htm [accessed 17 January 2007].

American Institute of Certified Public Accountants (2002) 'Reforming the Uniform CPA Examination'. *A Study Conducted for the AICPA by the OSR Group* July (http://www.cpa-exam.org/)

Ashworth, P., (1992) 'Being Competent and having 'Competencies'' *Journal of Further and Higher Education,* 16, (3): 9-17.

Ashworth, P. and Saxton, J. (1992) *Managing Work Experience*, London, Routledge.

Association of Chartered Certified Accountants, (2006) '*Practical Experience Requirement'* http://www.accaglobal.com/horizon/qualification/per

Beitler, M.A. (1998) 'Mid-career adults in self-directed learning: A heuristic study in progress', In H.B. Long and Associates (Eds) *Developing Paradigms in Self-directed Learning,* Norman, OK: College of Education, University of Oklahoma

Beitler, M.A., (1999a) 'Contract Learning: Appropriate for Mid-career Business Students?', in H.B. Long and Associates (Eds), *New Dimensions in Self Directed Learning,* Norman, OK: College of Education, University of Oklahoma.

Beitler, M.A., (1999b) 'Learning and development agreements with mid-career professionals', *Performance in Practice,* Fall, American Society for Training and Development

Biggs, J.B., (1987) *Student Approaches to Learning and Studying,* Research Monograph, Melbourne: Australian Council for Educational Research

Birenbaum, M. (1996) 'Assessment 2000: towards a pluralistic approach to assessment'. In M. Birenbaum and F. J. R. C. Dochy (eds.). *Alternatives in assessment of achievements, learning processes and prior knowledge.* Boston: Kluwer.

Black, H. and Wolf, A., (1990) *Knowledge and Competence,* London: HMSO/Careers and Occupational Information Centre
Programme, Case No C18-95-1285.0 available from http://www.ksgcase.harvard.edu

Boritz, J. E. and Carnaghan, C. A., (2003) Competency-based Education and Assessment for the Accounting Profession: A Critical Review, *Canadian Accounting Perspectives*, 2, (1): 7-43.

Boud, D., (1989), 'The Role of Self-Assessment in Student Grading', *Assessment and Evaluation in Higher Education,* 14, 21-30.

Boydell, D., (1986) 'Issues in Teaching Practice Supervision Research; a Review of the Literature', *Teacher and Teacher Education,* 2, (2): 115 – 125.

Brown, S. and Glasner, A. (Eds.) (1999) *Assessment Matters in Higher Education: Choosing and Using Diverse Approaches.* Buckingham: Open University.

Brown, S. and Knight, P. (1994) *Assessing Learners in Higher Education.* London: Kogan Page.

Canadian Institute of Chartered Accountants (2006) *The CA Candidates' Competency Map: Understanding the Professional Competencies of CAs*, http://www.cica.ca

Carr, D. (1993) 'Guidelines for teacher training: The competency model', *Scottish Educational Review*, 25, (1)

Clinton, M.S. (1999) An examination of basic skills education and its effect on performance. *Journal of Education for Business* 74 (5):266-270.

Common Content Project. (2005) *Professional Accountancy Qualifications Common Content Project*, http://www.commoncontent.com

Crooks, T., (1988) 'The Impact of Classroom Evaluation Practices on Students' *Review on Educational Research,* 58, (4), 439 – 481.

Curry, R. (1995) 'Assessing the chartered account for the future'. *Accountancy*. September.

Dearing Report, (1997) *Higher Education in the Learning Society*, London, HMSO.

Diamond, M. (2005) 'Accounting Education, research and practice: After Enron where do we go?' *European Accounting Review*, 14, (2): 353 – 362.

Direick, S. and Dochy, F. (2001) 'New Lines in Edumetrics: New Forms of Assessment lead to New Assessment Criteria'. *Studies in Educational Evaluation* 27, (4): 307-329.

Dreyfus, H.L. and Dreyfus, S.E., (1986) '*Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer'* Oxford, Basil Blackwell.

Elliot, R.K. and Jacobson, P.D., (2002) 'The Evolution of the Knowledge Professional' *Accounting Horizons,* 16, 69-80.

Elshout-Mohr, M., Oostdam, R., Overmaat, M. (2002) 'Student Assessment within the Context of Constructivist Educational Settings'. *Studies in Educational Evaluation* 28, (4): 369-390.

Eraut, M., (1994) *Developing Professional Knowledge and Competence*, London, The Falmer Press, ISBN 0 7507 0331 8.

Fédération des Experts Comptables Européens (2002) '*Admission to the profession of Accountant and Auditor – A Comparable Study*', Bruxelles, FEE

French, G.G. and Coppage, R. (2000) 'Educational Issues Challenging the Future of the Accounting Profession'. *The Ohio CPA Journal* 59, (July – September): 69 – 73.

Gammie, E., Allison, M. and McDonagh, J., (1995) 'Education Review 1994-95' The Institute of Chartered Accountants of Scotland, Edinburgh

Garnet, J. (1997) 'Quality assurance in work-based learning'. In *UACE work-based learning network conference.*

Gonczi, A (ed) (1992) 'Developing a competent workforce: Adult learning strategies for vocational education and training', *National Centre for Vocational Education Research*, Adelaide

Gonczi, A., Hager, P., and Oliver, L., (1990) 'Establishing Competency-based Standards in the Professions*, Australian National Office of Overseas Skills Recognition*, Department of Employment, Education and training, research Paper no 1, December.

Goodwin, M. and Forsyth, H. A. (2000) 'A Development of Professional Studies by Negotiated Work-Based Learning'. In *The Impact of Work Based Learning: Proceedings of a conference, Cambridge 14/15 December 2000.* Cambridge: Work Based Learning Network of the Universities Association for Continuing Education.

Grey, C., Robson, K., and Anderson, F. (1997) 'Pass Rates Research: The Trainees Experience'. In K. Hoskin and B. Geddes (Eds). *ICAEW Pass Rates Research* London: ICAEW.

Hagar, P., Gonczi, A., and Athanasou, J., (1994) 'General issues about assessment of competence', *Assessment and Evaluation in Higher Education,* 19, (1): 3-16.

Hagar, P and Gonczi, A (2002) 'Professions and Competencies', in Edwards, R, Hanson, A and Raggat, P (eds.) *The Boundaries of Adult Learning*, Routledge, London

Hamilton, S., (2005) *Accounting for Identity: Students learning to be Chartered Accountants* Conference Proceedings, Centre for Research in Lifelong Learning, University of Stirling, ISBN: 1-903661-72-2.

Harris, R. (1993) *Reflections in the Assessment of Vocational Teachers' Competence*, Adelaide, AU, NrvFu.

Harris, D. and Bell, C., (1986) *Evaluating and Assessing for Learning,* London, Kogan Page.

Helliar, C. and Bebbington, J. (2004) *Taking ethics to heart.* Edinburgh: Institute of Chartered Accountants of Scotland.

Houston, W.R., (1985) 'Competency-based Teacher Education' in Husen, T. and Postlethwaite, N. (eds) *The International Encyclopedia of Education,* Oxford, Pegamon.

Howieson, B., (2003) 'Accounting practice in the New Millenium, is Accounting Ready to Meet the Challenge?' *British Accounting Review,* 35, (2): 69-103.

Hughes, C., (1999) 'Facilitation in Context: Challenging some Basic Principles', *Studies in Continuing Education,* 21, (1): 1 – 43.

Humphrey, C. (2005) 'In the Aftermath of Crisis: Reflections on the Principles, Values and Significance of Academic Enquiry in Accounting'. *European Accounting Review,* 14, (2), 341 – 351.

Hyland, T., (1994) *Competence, Education and NVQs: Dissenting Perspectives,* London, Cassell.

Hyland, T. and Johnson, S. (1998) Of cabbages and key skills: exploding the mythology of core transferable skills in post-school education. *Journal of Further and Higher Education* 22 (2):163-172.

Illott, I. and Murphy, R., (1999) *Success and Failure in Professional Education: Assessing the Evidence,* Whurr Publishers, London.

Institute of Chartered Accountants of Scotland (2002) *Achievement log 2002 - 2005.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland (2003) *Fast Forward to 2010.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland (2004) *Achievement log 2004 - 2007.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland (2005) *Achievement log 2005 - 2008.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland (2006a) *Achievement Log. Sample Specialist Competencies. Sample Alternative Competencies.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland (2006b) *ICAS Achievement Log. Frequently Asked Questions and Guidance on Completing the Achievement Log.* Edinburgh: Institute of Chartered Accountants of Scotland.

Institute of Chartered Accountants of Scotland, *CA Student Guide*, 8th edition.

International Federation of Accountants Education Committee (2003a) '*International Education Standards for Professional Accountants IES 1-6*', October, New York: International Federation of Accountants.

International Federation of Accountants Education Committee (2003b), *Towards Competent Professional Accountants IEP 2*, April 2003, New York, International Federation of Accountants.

International Federation of Accountants Education Committee (2004a) '*Continuing Professional Development: A Program of Learning and Continuing Development of Professional Competences, IES7*', May, New York: International Federation of Accountants.

International Federation of Accountants Education Committee (2004b) '*Assessment Methods IEP 3*, December, New York: International Federation of Accountants.

International Federation of Accountants Education Committee (2006) '*Competence Requirements for Audit Professionals, IES8'*, July, New York: International Federation of Accountants.

Jarvis, P., (1983) '*Professional Education'* Crook Helm Ltd, Beckenham.

Jeans, M. (2002) *International Federation of Accountants World Congress*, Hong Kong.

Jessup, G., (1991) *Outcomes: NVQs and the Emerging Model of Education and Training,* London, The Falmer Press

Johnson, C., (1995) 'Achieving Consistency in NVQ Assessment', In McKenzie, P., Mitchell, P., and Oliver, P., (eds), *Competence and Accountability in Education,* Aldershot, Arena.

Karreman, G. H. (2002) 'The Impact of Globalization on Accountancy Education'*, IAAER Task Force Report, EIASM.*

Kerka, S (1998) '*Competency Based Education and Training, Myths and Realities'*, ERIC Clearinghouse on Adult, Career and Vocational Education, ERIC Publications, Ohio.

Klemp, G., (1977) 'Three Factors for Success in the World of Work: Implications for Curriculum in Higher Education', In Bermilze, D., (Ed), *Relating Work and Education: Current Issues in Higher Education,* San Francisco, Jossey-Bass.

Light, G. and Cox, R. (2001) *Learning and Teaching in Higher Education.* London: Paul Chapman Publishing.

Lines, D. (1999) 'Cultural Values and the Curriculum: Economics and Business Education at different stages in the Maturation Process'. Unpublished PhD thesis, University of London.

Lines, D. and Gammie, E., (2004), *Assessment Methods Report,* International Federation of Accountants, New York, ISBN 1-931949-33-6

Lysaght, R. M. and Altschuld, J. W. (2000) 'Beyond initial certification: the assessment and maintenance of competency in professions' *Evaluation and Program Planning* 23, 95-104.

Mansfield B. (1989) 'Functional Analysis - A Personal Approach'. *Competence and Assessment,* Special Issue 1, U.K. Employment Department Standards Programme.

Mathews, M.R. (2001) The way forward for accounting education? A comment on Albrecht and Sack 'A Perilous Future'. *Accounting Education: an international journal* 10 (1):117-122.

Matthews, J. H. and Candy, P. C. (1999) 'New Dimensions in the Dynamics of Learning and Knowledge' in Boud, D. and Carrick. J. (1999), *Understanding Learning at Work*, Routledge, London and New York.

McLagan, P., (1997) 'Competencies: The Next Generation' *Training and Development*, 51, 40-47.

McPhail, K. (2006) *Ethics and the individual professional accountant: a literature review.* Edinburgh: Institute of Chartered Accountants of Scotland.

Messick, S., (1994) 'The Interplay of Evidence and Consequences in the Validation of Performance Assessments', *Education Researcher,* 32, (2): 13-23

Mitchell, L (1990) 'The Definition of Standards and their Assessment', in Burke, J.W (ed.) *Competency Based Education and Training*, Falmer Press, London.

Monjan, S. V. and Gassner, S. M., (1979) *Critical issues in competency based education*, New York, Pergamon.

Nespor, J. (1994) *Knowledge in motion*, London: The Falmer Press.

Nijholf, W.J. (1998) Qualifying for the future. In: Nijholf, W.J. and Streumer, J.N., (Eds.) *Key qualifications in work and education*, Dordrecht: Kluwer. Chapter 2.

Paisey, C., and Paisey, N., (2006), 'Cutting to the Core? A reflection upon recent Education Policy Debates Within the Institute of Chartered Accountants in England and Wales', *British Accounting Review,* 38, (1): 31-62.

Peak, G (1995) '*Competency Based Assessment in Vocational Education and Training: Recent investigations and some current issues using different research settings and approaches'.* Paper presented at AARE Conference, Hobart, Australia.

Pottinger, P.S., (1980) 'The Assessment of Occupational Competence – Part 3. In *Competence Assessment for Occupational Clarification,* Boston, Mass, McBerr Corporation

Professional Oversight Board for Accountancy., (2005) '*Review of Training and Education in the Accountancy Profession*' Financial Reporting Council, London, April.

Purcell, J., (2001) 'National Vocational Qualifications and Competence-based Assessment for technicians – from sound principles to dogma' *Education and Training,* 43 (1): 30-39

Raelin, J. A. (2000) *Work-based learning. The New Frontier of Management Development.* Upper Saddle, New Jersey: Prentice Hall.

Rogers, C., and Freiberg, H.J., (1994) *Freedom to Learn,* New York: Merrill.

Rowntree, D. (1987) *Assessing Students, How Shall We Know Them?* London: Kogan Page.

Samson, G., Graue, M., Weinstein, T., and Walberg, H., (1984) 'Academic and Occupational Performance: A Quantitative Synthesis', *American Educational Research Journal,* 21, (2): 311 – 321.

Smith, D. and Wilson, B. (1992) 'The development and assessment of personal transferable skills during work-based placements', *Assessment and Evaluation in Higher Education,* 17, 3 (Autumn): 195-208.

Smyth, W.J., (1986) *Learning about Teaching through Clinical Supervision,* London: Croom Helm.

Stolowy, H., (2005) 'Nothing like the Enron Affair Could Happen in France!' *European Accounting Review,* 14, (2): 405 – 415.

Tang, C. (1994), 'Effects of Modes of Assessment on Students' Preparation Strategies', In G. Gibs (ed) *Improving Student Learning –Theory and Practice*, Oxford: Oxford Centre for Staff Development.

Thomson, P. J., (1995) 'Competence Based Learning and Qualifications in the UK' Accounting Education: an international journal, 4 (1): 5-15

Willmott, H. and Sikka, P., (1997) 'On the Commercialisation of the Accountancy Thesis: a review essay' *Accounting, Organisations and Society,* 22, 831 – 842.

Wolf, A (1995) *Competence-Based Assessment,* Buckingham, Open University Press.

Wong, J. and Wong, S., (1987) 'Towards Effective Clinical Teaching in Nursing', *Journal of Advanced Nursing,* 12, 505 – 512.