**Competence-Based Approaches
to the
Professional Preparation of Accountants**

The mission of the International Federation of Accountants (IFAC) is the development and enhancement of the accountancy profession to enable it to provide services of consistently high quality in the public interest. The Education Committee of IFAC was formed to develop and/or distribute pronouncements on both the prequalification education and training programs of accountants and on continuing professional education for members of the accountancy profession. This discussion paper is one of these pronouncements.

The Education Committee has produced this paper in order to provide guidance to organizations on the topic of competence. It is likely that this paper will be updated periodically, and therefore any feedback on additional topics to be included in future editions would be most welcome. Comments on this paper should be sent to:

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Competence-Based Approaches
to the
Professional Preparation of Accountants

COMPETENCE-BASED APPROACHES
TO THE
PROFESSIONAL PREPARATION OF ACCOUNTANTS

FOREWORD

The issue of competence and its assessment has become a major topic within the profession. Unfortunately, there is a lot of confusion related to it, since the term "competence" is commonly used to mean different things in an everyday context as well as in academic discussions. Moreover, what is deemed desirable by one may not be deemed desirable by another, and what is considered to be acceptable performance by one may not be acceptable to another.

The Education Committee believes it important to inform member bodies about the issue and its potential implications for the development of future professional accountants. Accordingly, it commissioned a professor of education, known to be an expert on the subject of competence-based approaches to education within varied professions, to develop this paper.

At the request of the Committee, the paper has been developed to discuss the issue of competence in general terms, indicating what is involved in a competence-based approach and presenting guidance to member bodies that would assist them in assessing the implications of its adoption within their system.

The Education Committee will continue working on the issue with a view of developing other papers. In order to help it get a better understanding of what is happening around the world it has developed a few questions for member bodies. These are included with the paper in the hope and anticipation that member bodies will provide feedback to IFAC before October 31, 1998 to enable the Committee to continue their researches into this challenging area.

Comments on this paper should be sent to:

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Request for Feedback

The topic of competence has the potential to significantly impact on the way future professional accountants will be assessed and admitted to the profession. The focus of a competence-based approach is on achieving outcomes, rather than focussing on inputs. The difficulty, of course, is in the identification and the measurement of these desired outcomes. What is deemed desirable by one may not be deemed desirable by another; what is acceptable performance for one may not be acceptable to another.

The paper "Competence-Based Approaches to the Professional Preparation of Accountants" was developed to discuss in general terms what is involved with a competence based approach and in order to assist member bodies to examine and consider the competency issue if they have not already done so.

The Education Committee will continue working on the issue with a view of developing other papers. In order to help it get a better understanding of what is happening around the world it has developed questions for member bodies. However, the Committee welcomes comments from all interested parties.

Questions

1. Has this paper helped you in understanding the issues involved in a competence-based approach?

2. Has your organization considered moving to a competence-based approach to the professional preparation of accountants?

3. If the answer to Question 2 is "yes" , what has been the outcome of this consideration?

4. After reading this paper, would you consider undertaking any of the projects identified in the last part of the paper? If so, which ones?

5. What other issues related to the topic of competence should the Education Committee address?

6. Please feel free to comment on any other aspect of this paper or the subject.

The answers to these questions, plus any other comments, should be sent to:

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COMPETENCE-BASED APPROACHES
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PROFESSIONAL PREPARATION OF ACCOUNTANTS

CONTENTS

ABSTRACT

1.   This paper discusses the challenge posed to member bodies by new approaches to the definition and assessment of competence and, in particular, their proposed application to the development of future professional accountants. It is accepted that professional qualifications should indicate that newly qualified accountants have achieved the standard of performance expected by employers and the general public in all the specified areas. Competence-based approaches offer a systematic and effective way of achieving this aim. However, their development and implementation will require close co-operation between member associations, higher education, and employers.

2.   The discussion covers likely problems and benefits that will need to be addressed by developers of competence-based approaches in order to indicate how a member body could prepare the ground for internal discussion and/or decision making. It also suggests how interested parties could usefully adopt a stage-by-stage procedure for developing their policy on competence. This process can be designed so that early stages confer benefits in their own right even if no further stages are being commissioned. It gives time for learning from experience and allows adjustments to be made at each stage. There is both merit and danger in adopting competence-based approaches. Careful preparation is needed, problems have to be anticipated, and the approach has to be adapted to the local context. But if the process is too rushed or the documentation is too lengthy or too complex, the search for improved professional preparation can be compromised.

1.   WHAT IS MEANT BY A COMPETENCE-BASED APPROACH?

Definition

3.   The growing literature on the development and assessment of competence in professional, vocational, and management education uses several definitions of competence. However, this range of usage partly reflects the variety of purposes for which the term, "competence", is now being used. These include deciding whether a carpenter should be certificated, describing the nature of work in the 21st century, and discriminating between high- and average-performing managers. *This paper is concerned with one particular purpose — the specification of what is required of both a newly qualified professional accountant in the workplace and of an established accountant throughout a professional career.* The following definition is proposed to fit that purpose:

COMPETENCE is the ability to perform the tasks and roles expected of a professional accountant, both newly qualified and experienced, to the standard expected by employers and the general public.

4.   The use of the term, competence, in management selection and development is quite distinct from that used in this paper and could therefore cause confusion. Competence, as used in this paper, refers to the expectations of the public and employers of *all* holders of a professional designation — a set of minimum requirements — *not* the distinguishing attributes of those who are deemed to be

especially effective. However, competence is not a static term for the accountant; it evolves over a lifetime of learning.

5. Three assumptions underpin the concept of a competence-based approach to professional formation:

    (1) the credibility and utility of a professional qualification depends on the ability of those who carry the designation to meet the expectations of both employers and the general public;

    (2) the ability to perform a professional accountant role can only be demonstrated in an authentic work context;

    (3) the demonstration of competence should be a necessary condition for the award of a professional qualification.

6. These assumptions and their implications are discussed below.

Public Expectations

7. Professional qualifications are a form of social contract between a profession and the general public. This contract confers certain privileges on the professional body — control over admission to membership and a publicly acknowledged distinction between members and nonmembers — in return for the guarantee of minimum standards (to protect the public from practitioners who may do them harm through incompetence or unethical behavior).

8. Public skepticism about the degree of protection provided by these professional qualifications is reflected in the growth of consumerism and the recent rise in litigation. Many professional bodies are now reviewing their qualification systems to ensure that they can meet the increasingly demanding expectations of the public; indeed, this review commonly entails some consideration of various forms of a competence-based approach.

9. The public may not *comprehend* the domain of a professional — either the exact bounds or the level of performance required — but the public will *expect* a professional to be competent throughout that domain, and if a professional ventures beyond it, to secure outside assistance. The public expectation that members of a professional association are competent in those services which they undertake is central not only to the reputation and status of a profession, but also to the very concept of a profession. Even the newly accredited are expected to be able to perform in this manner.

10. The extent to which continuing professional development can ensure that professionals retain and update their competence throughout their career is also on the agenda of many professional bodies. Both initial qualifications and continuing professional development depend for their credibility on some working definition of what the

profession means by competence, which the public, and in a few cases, also the courts, are willing to accept.

Employers' Expectations

11. Most accountants work in organizations which continue to supervise, albeit lightly, the work of those who have recently qualified. In effect, quality assurance is provided by the employing organization rather than the professional association. For these employers, competence will be interpreted in terms of being able to perform particular jobs and roles within their own organization. These jobs and roles may differ significantly between organizations, especially between large commercial accountancy firms, businesses, public authorities, and small independent accountancy practices.

12. Hence standards which cover a wide range of employment situations can only be specified at a fairly general level. In order to be relevant to local situations they will have to be locally interpreted; this will inevitably cause some loss of comparability and transferability. Thus, a well-defined core "curriculum", adapted to suit local requirements, remains the most important means of maintaining a viable definition of competence.

Implications of Work-Based Performance Assessment

13. Competence-based approaches are greatly concerned with the authenticity of the final assessment and hence with its validity. They expect, therefore, that a significant proportion of the final assessment is based on performance in a real work context under normal working conditions. This means

   - assessment and training have to be considered in detail when allocating work;

   - nondocumentary aspects of competence need to be observed and appropriate records made for the purpose of assessment;

   - systems have to be developed by professional bodies for verifying that assessments of competence are reliable, valid, and comparable.

14. The other major implication of a competence-based approach is that academic courses of study are expected to contribute to the development of competence in a much more focused way. Their professional components require clearly specified outcomes to which teaching and assessment must be oriented; and their contribution to the competence requirements of the professional qualification must be clearly demonstrated. Where these outcomes constitute part of the competence specification, they are described as *competence-based*. When they only contribute towards some aspect of competence, they are better described as *competence-referenced*.

15. Many existing higher education programs promote only competence-referenced outcomes because their courses do not match the standards of the professional bodies. Competence-based outcomes require much more integration between higher education and work-based components of professional preparation than is commonly found in traditional programs. Competence-based qualifications are easier to implement when programs are underpinned by partnership arrangements between higher education and employers. Professional associations should play an important role in facilitating such partnerships.

Competence and Capability

16. Most professions argue with some justification that professional development should be concerned with more than competence at the point of qualification. Such competence is a necessary but not a sufficient outcome of professional education and training. There are five other types of outcome to be considered:

   (1) competence in work not required for the initial qualification (but likely to be assigned to professional accountants in the following 5–10 years);

   (2) an awareness of the provisional nature of the current (or any) knowledge base;

   (3) preparation for wider responsibilities as one becomes more senior, such as the ability to contribute to the organization in which one works and to work with members of other professions;

   (4) a capacity "to continue to learn and adapt to change throughout their professional lives";[1]

   (5) participation in ongoing discussions about the role of one's profession in wider society, especially the issue of what is in the public interest.

17. In order to cope with these additional outcomes, it is useful to think in terms of complementing the requirement for current competence with capabilities linked to future professional competence. These might be developed by a variety of higher-education and work-based assignments. However, it should be emphasized that demonstrating capability involves using knowledge in a work-linked situation; and cannot be accomplished only by traditional book-based learning, which normally leads to competence-referenced outcomes.

2. WHAT ARE THE PROBLEMS WITH MORE TRADITIONAL APPROACHES?

The Validity of the Qualifications

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[1] IEG 9, paragraph 7. This study has been written as an adjunct to IEG 9, and an intimate knowledge of its contents will benefit the reader.

18. There are three main areas in which the validity of the qualification resulting from traditional approaches may be challenged: (1) professional accountability to the public and to employers who do not have accountancy units and departments to provide further on-the-job training, (2) fitness for the occupational purpose, and (3) the validity of pass-fail decisions.

Professional Accountability

19. The central questions are quite simple, as follows:

- Are newly qualified accountants able to perform the function of an accountant competently and independently?

- Is the domain of their competence clearly specified?

- Is that competence "quality assured" by the qualification system?

Fitness for Occupational Purpose

20. This is a more difficult issue to address, because all the main players in the qualification process ─ higher education, professional associations, and accountancy organizations or departments ─ have become accustomed to the current pattern of qualification in their country. They are used to making adjustments to accommodate weaknesses instead of remedying them. The status quo is well entrenched ─ changes in content (whether dropped or just postponed to a post-qualification period) are more likely to be automatically opposed rather than welcomed as an attempted improvement to the education system.

Validity of Pass/Fail Decisions

21. This is a particularly difficult issue. The first questions to be asked of any qualification system are:

- Do candidates pass who ought to fail? (false positives)

- Do candidates fail who ought to pass? (false negatives)

22. False positive decisions can undermine the standards of the profession, while false negatives cause people to retake examinations and prolong their period of training. The underlying problem is the question of whether the assessment process measures the right things. In accountancy, for example, it is sometimes difficult for employers to see a relationship between the performance of trainees in professional

examinations and their performance at work. This indicates a validity problem because if the examination is not measuring candidates' level of performance on the job, why is it being used to decide whether a person should be qualified?

23. There is also a valid question to be raised concerning the use of various averaging methods employed for marking (Bell Curves or minimum passing percentages) by both higher-education institutions and professional accrediting bodies. If the designation actually denotes competency, can the entrance qualifications have such amorphous minimum standards?

The Respective Roles of Formal Education, Preparing for Examinations, and Learning on the Job

24. Professional preparation usually entails at least three of the following modes:

(1) a period of relevant study at college, polytechnic, or university leading to a recognized academic qualification;

(2) a period of work-based training, during which students spend a significant amount of time (three to five years) learning from experienced professionals;

(3) enrolment in a professional college or engagement in "open learning" to prepare for the qualifying examination;

(4) a qualifying examination, usually set by a professional body or a regulatory authority.

25. In the most common approach to professional preparation for accountancy, students first take an academic qualification and then a trainee post prior to trying the qualifying examination. However, this leads to a rigid separation of off-the-job and on-the-job learning, because each partner concentrates on what it does best with little regard for what the other partners are contributing.

- Higher education provides formal teaching and knowledge-based examinations.

- Employers provide a mixture of practical tasks and experience of working alongside qualified professionals.

- Professional associations provide a final examination that is fair and reliable.

- Students focus their learning on the various assessment hurdles which mark their way to qualification.

26. So the net outcome is a less effective accountant than would have been possible with a more collaborative and integrated approach.

27. Whereas, when there is a significant period of work-based learning during the higher-education component, there are more opportunities for higher education to link its contribution to that work experience and facilitate the integration of theory with practice. This may be achieved by either a part-time education (PTE) pathway or a "sandwich course". These two concurrent pathways open up the opportunity for higher education to be involved in the assessment of trainees' work-based learning, as, for example, through the collection of evidence of practical competence in the form of a logbook or portfolio.

28. Another reason why higher education involvement in the assessment of work-based learning may be useful is that it will strengthen comparability across different work contexts. It is important for experienced professionals in the training organizations to play a role in assessment and to see that contextual factors are properly taken into consideration, but they are never in a position to ensure that the same standards apply to all trainees regardless of their work location.

29. Thus a partnership approach to assessment offers the opportunity for work-based assessments to replace some of the functions of a final professional examination, with higher education assuming responsibility for objectivity and employers for validity. This could be underpinned by the professional association appointing external examiners and taking ultimate responsibility for verifying that all assessments contributing to a candidate's final qualification meet the same standards (see Section 4 following).

30. Careful examination of the goals of professional preparation presented and discussed in IEG 9 suggests that several goals will be difficult to achieve without significant integration of the higher education and employment contributions to prequalification education and training.[2] The solution of this problem is much the strongest argument for competence-based, and even competence-referenced approaches. Hence the remainder of section 2 discusses in turn the achievement of goals for knowledge acquisition, skills development, values education and learning to learn. Sections 3 and 4 will then examine some of the problems associated with the introduction of competence-based approaches.

Knowledge Acquisition during Professional Preparation

31. Higher education has traditionally given greatest priority to the teaching of publicly available, codified knowledge of concepts, theories, typologies, procedures, techniques, principles of

    practice, and so on. Its purpose is to provide students with

    - some understanding of relevant disciplines and the social and economic context of professional work;

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[2]It is not likely that any single trainee position will be able to offer the breadth and/or the depth of coverage necessary for proper treatment of some of these topics and skills. Examples would appear to be paragraph 33 (1st, 4th, 6th, and 7th bullets), paragraph 36 (3rd, 4th, and 5th bullets), and paragraph 37. Any meaningful comparisons of systems or approaches would probably depend on higher education being involved.

- conceptual frameworks and theories as cognitive resources;

- a technical base for future professional work.

32. Within higher education the use of this knowledge is largely determined by the assessment regime of examinations, course work and projects. This affects both the relative attention which students give to different aspects of their program and the way in which knowledge is structured and understood.

33. Considerable further learning will then be required to learn how to use that knowledge in practical work situations. In the simplest cases, this will involve only recognizing when a concept, theory, principle or technique is relevant. More usually, however, knowledge acquired in an academic context also has to be reinterpreted to fit each particular kind of practical situation.

34. This reinterpretation requires an in-depth understanding of the situation which is normally acquired through practical experience, as well as learning how best to use one's technical knowledge. In the most complex cases, problems are ill-defined, and prior experience provides insufficient guidance; so one may have to return to first principles in order to solve the problem. This requires both an in-depth understanding of those principles and a developed capability for problem solving. The phrase "applying one's academic knowledge" is deceptively simple when so much further learning is required in the workplace. Indeed, a careful study of the practical use of academic knowledge is needed to guide those engaged in this difficult program of work-based learning.

35. When working in a practical placement, trainees are likely to be mainly occupied with learning to do their assigned tasks and with assimilating the values and perspectives of qualified professionals in order to gain role credibility. This learning will involve using only that knowledge whose relevance is immediately apparent to them or explicitly mentioned by their managers. Knowledge will be excluded that coworkers (a) have acquired tacitly, (b) consider so commonplace as to be not worthy of mentioning, (c) do not possess at all, and (d) do not consider relevant. Thus many opportunities for learning to use trainees' academically acquired knowledge are either not recognized or not prioritized. Competence-based approaches take care to specify and assess desired learning outcomes which might otherwise be neglected.

36. Other limitations on knowledge learned in placements can be the range of work in which the trainee is involved and the extent to which that work is treated as problematic in any significant way. Trainees learning to use their academic learning in a range of practical work contexts is critical for achieving the goals described in IEG 9, paragraph 33. Employers are not likely to present assignments as opportunities for comparative studies in methodology or competitive evaluations or an opportunity to formally link their academic teachings to their workplace.

37. The extent to which the roles of higher education and employment are integrated to help students develop a knowledge base which meets academic criteria, employment

criteria and the goals of the profession will depend on the willingness of higher education

- to use practice-based examples to illustrate academic material;

- to discuss and analyze students' own experience of practice (impossible unless short placements are included in the program) in order to help them understand significant aspects and link them to their course work;

- to use practice contexts for some of the assessed work, especially for project work;

- to extend some of the simulated practice exercises used to develop technical expertise into more broadly based case studies which cover more of the organizational and business context; thus allowing a wider range of issues to be addressed and more alternative approaches to be considered.

38. Equally important will be the willingness of employers

- to give both systematic and opportunistic attention to the concepts, theories, and principles which underpin their practices;

- to provide an appropriate range of work experience;

- to situate aspects of their work in the wider context of their own organization and their customer organizations.

39. Even these efforts, however, will not be well coordinated unless there is some agreement about common outcomes, and the nature and phasing of their respective contributions.

Skills Development

40. Higher education has always claimed to develop intellectual skills and skills in written communication, but restricts this development to its own areas of practice. Hence only the first of the four types of intellectual skills listed in IEG 9, para. 17, would normally be emphasized in most higher education programs, and only certain kinds of written communication. Oral communication and interpersonal skills are usually ignored. Fortunately improved results in communication skills are evident from a few exceptional institutions worldwide that have adopted a more catholic definition of skills necessary to achieve their goals. The resultant attitude change has allowed professional education programs, desirous of taking up this challenge, to receive support instead of opposition.

41. Meanwhile, current rhetoric also needs to be challenged. Academic writing follows certain conventions ─ specialized language, preference for theory, profuse citation, examining all angles ─ that are highly inappropriate in a business context. Other

forms of communication should be developed in higher education, and simulations could be incorporated into the organizational and business knowledge component of the curriculum that require the appropriate communication skills. Indeed this would provide an additional dimension to the case studies discussed previously. These alternate forms of communication must be built into the curriculum design, because traditional academic work does not provide adequate preparation for the different communication skills required in the workplace.

42. There can also be constraints on skill development in the workplace itself, arising from the subordinate, relatively low status of trainee professionals. They may not be given the level of responsibility needed for developing expertise in solving difficult problems, making oral presentations, or exercising leadership skills; in some contexts the practice of critical evaluation is strongly discouraged. Allocation to special assignments, projects, or review groups may be necessary for making progress in this area.

43. It must also be recognized that the exercise of skill is dependent on having appropriate knowledge and understanding. One cannot reason, solve problems, or present reports without an appropriate range of concepts and theories; interpersonal skills cannot be used appropriately without the requisite interpersonal and situational understanding.

Values Education

44. Values education suffers most when it is separated from reality and taught as a dry, self-contained topic. A well-planned program, especially integrated with work experience, can handle the topic very effectively.[3] Professional associations' codes of conduct and employers' codes of ethics should stress the aim of lifetime adherence to professional values.

45. Higher education could serve both as a capable disseminator of ethical principles and as a developer of ethical reasoning. Appropriately specified learning outcomes are more likely to help rather than hinder the development of professional values. Academic courses can develop values awareness and ethical reasoning by using case studies to explore a wide range of conflicts between ethical principles and stakeholders and the ethical aspects of employer/employee relationships.

46. But they must not be isolated from other aspects of professional thinking. Successful handling of values issues entails the use of intellectual, interpersonal, and communication skills; the proper use of these skills entails proper handling of the values dimension in practical situations.

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[3]See IEG 10 for a practical, in-depth study of this topic.

47. Work experience can socialize trainees into the values expectations of a particular workplace. Practical experience is necessary for people to learn how to recognize that a values issue is involved when handling a particular situation. The closer the examples discussed in higher education are to those encountered by students on placements, the greater the chance of coordinating on-the-job and off-the-job learning about values.

Learning to Learn

48. Learning to learn is being given increasing attention in the rhetoric of higher education. The professions are applying increasing pressure to give learning to learn greater priority. Though treated by some educational writers as a skill, it is more complex than that. Learning to learn is also an attitude or disposition, something to be highly valued.[4] It also requires that professionals gain greater knowledge of learning and, in particular, of how to direct their own learning and better understand some of the learning difficulties they encounter. Many institutions now run courses about learning in higher education settings, but courses on learning in the workplace are quite rare at undergraduate level. The issues and problems discussed in this paper ought to be shared with students, and ways found to help them integrate personally the various components of their courses.

3. THE REPRESENTATION OF COMPETENCE

Introduction

49. The foundation of competence-based approaches to professional preparation is a statement of competence. For this paper, the definition of competence adopted previously is that foundation. The strength of competence-based approaches lies in the unity of purpose which such a description brings to the process of professional development, especially to the specification of learning outcomes towards which all participants ─ higher education, employers, professional associations, and students/trainees ─ can work together. These descriptions, however, are not unproblematic. The following section discusses the main issues and problems hitherto identified in developing statements of competence:

- the specification of the domain, that is, which work-based tasks and roles to include and which to exclude;

- the part/whole problem, that is, the relationship between overall competence and its component parts (competencies) and how this is represented in the statement;

- the treatment of tacit knowledge, acquired through experience but not easily described or explained;

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[4]IEG 9, para. 7 and discussion in paragraph 8.

- the level of specificity, which largely determines the length and complexity of the statement;

- learning and progression ─ how descriptions of competence can promote or constrain natural processes of learning and progression in the quality and complexity of one's work.

50. Most of the differences among competence-based approaches result from the different ways in which they seek to resolve these issues.

Specifying the Domain of Competence

51. The paragraphs entitled "employers' expectations" briefly discussed differences in employer expectations of newly qualified professionals, according to the nature of their organizations and the types of accountancy work which they undertake. These expectations affect both the work available for, and the work specifically allocated to, trainees immediately prior to or after qualification. Thus the specification of the domain of competence requires agreement between groups of employers with different training capabilities and expectations. This poses a political problem for professional associations, who have to consider not only a balance of employer interests but also the balance between what is best for the future of the profession and what is a feasible goal under current and immediately foreseeable circumstances. The questions they will need to address are likely to include:

- Is this activity sufficiently central to professional work to be included in the core curriculum?

- Is this activity too complex to expect competence from a newly qualified professional?

- Under what range of circumstances might competence in X reasonably be expected?

- Given the range of placements likely to be used by trainees, will they all be able to get the necessary training to become competent in Y?

52. The diversity of employment contexts will make some of these questions and the consequent decisions very difficult. Hence disagreements must be anticipated and the consultation and decision-making process agreed in advance.

53. In addition to this political problem, there is the technical problem of how to prepare a statement of competence to feed into this consultation process. Competence is a quality inherent in (or missing from) a performance. People cannot agree on what it is without seeing the performance (live or recorded) and even then they may not be seeing the same thing or thinking the same way. When using a competence-based approach, people have to agree to use a particular model or representation of competence in words and diagrams; and in reaching such agreement they draw on

both their own experience and the evidence presented to them. Many different techniques have been used in developing models of competence, and many different types of representation have been used to depict the results. The following sections discuss some of the principal problems.

The Part/Whole Problem

54. One important distinction in the literature on competence-based training is between representations of competence which start from the whole job and attempt to deconstruct its various dimensions and components and those which start from readily identifiable components and seek to aggregate them. The former approach tends to focus on functions and roles, the latter on knowledge, tasks and attributes. When the whole job is the focus, components tend to be described as units or elements of competence; when components are the starting point they are commonly referred to as competencies. Starting from competencies usually begins with the identification of relevant knowledge, skills, and attitudes. However, this tends to omit important areas of tacit knowledge and fails to address the problem of how to transform separate competencies into integrated performance at work. In contrast, the whole job approach provides a more integrated representation of competence but makes it more difficult to identify the knowledge, skills, and values which contribute to it in order to plan a coherent and efficient learning program.

55. Competence at work often requires that several outcomes are used together in an integrated way. Achievement of separate learning outcomes is no closer to competent performance than is eating the separate ingredients of a cake equivalent to eating the cooked product. Additionally, conditions of performance such as identifying needs, balancing speed and accuracy, balancing competing demands on available time, and so forth, can and do influence the outcome. Is achieving one outcome at a time, followed by later integration, the most efficient way to learn? Doing simple but real tasks, then increasing their complexity, is an alternative way to sequence learning.

56. At a higher level of organization, there is a critical difference between performing a set of tasks and performing a whole job ─ scheduling, prioritizing, negotiating with colleagues and clients, and so on. Coping with pressure and crowded offices and handling several ongoing assignments at once is usually an important aspect of competence.

57. Unfortunately this advantage of the whole job approach is rarely exploited. For purposes of accreditation, examination, or transformation into learning programs, it is easier and has become common practice to present statements of competence in the form of units, each of which is then described in terms of a list of learning outcomes. The implication is that these can be separately assessed and separately taught ─ thus effectively negating the whole job approach.

58. To get a full understanding of the dimensions of competence, both whole job and competency approaches need to be used together appropriately. The problem is how

to organize the information that results. Imaginative models of representation are needed. Otherwise the statement of competence will regress to a list of learning outcomes. Critics of competence-based approaches usually start by attacking its reductionism and fragmentation. But the concept of competence is essentially holistic.

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Treatment of Tacit Knowledge

59. There is a natural tendency for descriptions of competence to concentrate on readily observable phenomena, on action rather than thought, output rather than input. Yet research into the nature of professional expertise reveals not only the importance of the thought behind the action, but also the tacit use of a substantial amount of knowledge acquired through experience. Such knowledge is difficult to describe and often used intuitively. Research suggests that recognizing when a situation is similar to a previous case is often the first and most important step in a decision-making sequence.

60. Another example concerns our knowledge of other people. Such knowledge is often constructed through a series of encounters during which information about people is randomly assimilated with very little reflection. Similarly, our images of organizations get shaped by a mixture of documentary evidence and memories of incidents and people. All this information being integrated into a whole is another tacit process that automatically affects subsequent communication and judgement.

61. Models of competence need to take into account the importance of tacit knowledge in professional work. On the positive side, the effective use of experience is a major aspect of expertise. On the negative side, people can learn inappropriate things from experience by following bad models, or misinterpreting good models, or developing coping routines that are not very effective. From the outset, the development of tacit knowledge needs to be kept under critical control through reflection and sensitive supervision. But to attempt to deny the importance of tacit knowledge in professional work is to court disaster.

Level of Specificity

62. A certain level of specificity is necessary for understanding a policy or program rationale. However, this level of specificity is rarely sufficient to ensure that people interpret the policy in a similar way. Hence further detail is needed to reduce the diversity of interpretation. But the additional detail must be specified judiciously, so that comparative interpretations are made clearer without becoming so inflexible and even impractical, that competence-based approaches are abandoned (as has happened historically).

63. To allow more detailed approaches (a) people can create nested models of competence, developed to different degrees of detail and using different kinds of presentation, but

still consistent with one another, and (b) a professional association can develop a fairly general model and require local programs to develop more detailed versions which suit local circumstances, adding further specifications as necessary to clarify the assessment regulations.

Progression and Learning

64. Competence is often introduced as either a binary concept ─ one is competent or one is not ─ or as being adequate but less than excellent. Most professions cover both (1) (more routine) activities for which the binary concept of competence is appropriate and (2) activities for which competence is better described as a point near the middle of a quality continuum with a novice trainee at one end and an expert at the other. In the first case progression consists of becoming competent in more and more things; in the second it could mean a lifetime of improving the quality of one's work or becoming able to tackle more and more complex problems.

65. Even for routine tasks (the binary model), achieving competence cannot be allowed to impede the striving for excellence. Expertise and excellence must be championed. For the more complex tasks it is even more important that trainees, newly qualified professionals, and experienced professionals recognize the nature of both proficient and expert performance. Models of competence must be presented as models of evolving expertise with possible cut-off points along the way, which even the newly qualified might be expected to have reached.

4. THE ASSESSMENT OF COMPETENCE

66. Assessment is the cornerstone of competence-based approaches, the one part of the program which has to be legitimate and fit for the purpose. The two key principles of assessment are *reliability* (which incorporates notions of consistency across assessors, fairness, and objectivity) and *validity* (which is concerned with authenticity and whether the assessment actually measures what you want).

67. The search for perfect reliability leads to meaningless assessment, because it entails both (1) removing contextual information which might advantage candidates with particularly relevant experience and (2) reducing inter-assessor variation by removing all but the simplest assessor judgements. The consequent trivialization of the content destroys the validity of the assessment.

68. The search for perfect validity leads to endless assessment because that search results in more and more assessments to make sure that every single aspect of competence is covered. Both problems can be ameliorated by making sensible compromises.

69. The reliability problem is most appropriately handled by

(1) using a limited number of assessment criteria (5–10) for each significant judgement; evidence suggests that making specifications too complex or having too many criteria results in all being ignored;

(2) focusing most criteria on key decision points, for example, Pass/Fail or Pass/Distinction;

(3) providing sets of exemplars to illustrate these criteria;

(4) regular conferences of assessors to establish common interpretations of the criteria and any new problems that arise;

(5) using experienced external verifiers to sample the assessments and thus provide an additional form of quality assurance.

70. All five proposals are necessary for sustaining a community of assessors that provides reliable results. Moreover, they are equally applicable to (and necessary for) programs and qualifications which are not competence-based.

Assessment Problems and Possible Solutions

71. The main problems with competence-based approaches to assessment arise

(1) when overassessment erodes reliability by inducing a tick-chart mentality — work-based assessment to standards is always demanding, but if assessors are asked to make too many separate judgements they respond by making a single holistic judgement of the candidate and ignoring the delineated assessment criteria;

(2) when proponents mistakenly believe that reliability can be achieved by very detailed assessment specifications (written specifications alone can always be differently interpreted); excessive detail increases the burden on assessors with the same consequences as (1);

(3) where student evidence comes from practice contexts, giving some students an advantage over others.

72. Of the above, (3) is the most difficult to correct because diversity of practice contexts is unavoidable. Two possible responses are (a) to check whether there is unfair assessment or only unfair allocation to placements; it is learning outcomes that are being assessed and not learning gains and (b) to explore modifications to the assessment which mitigate disadvantage without seriously compromising validity.

73. The antidote to overassessment is a more creative approach, in which assignments are designed to combine several requirements into a single piece of work. These assignments need to be perceived as authentic by practitioners and linked to practice

tasks which need integration of several aspects of competence (in accord with the above discussion of the part/whole problem). Some requirements will probably occur in several assignments, that is, common skills, basic concepts, and techniques. If certain requirements cannot be easily fitted into the resultant assessment pattern, their inclusion in the model of competence should at least be questioned. Common problems remaining could then be addressed across programs, and suitable solutions or compromises found.

74. The cost of assessment, often considered as a major deterrent to the adoption of a competence-based qualification system, is hugely dependent on how this overassessment/fragmentation problem is resolved. Hence it is crucial that a pragmatic approach is used in developing an appropriate assessment policy. For example, the achievement of some competencies might be signed off by employers and used to indicate progress towards the final professional qualification, while those deemed most critical to the final decision are subjected to tighter evaluation procedures and some form of external verification by the professional association.

75. A very practical problem arising in the implementation of competency-based approaches is that of employer involvement in assessment. This entails (a) providing opportunities for on-the-job assessment and authentic assignments and possibly (b) providing internal assessors. Less-well-prepared employers might want to enter into partnerships with higher education to get assistance with this challenge, in return for providing higher education with access to a practice and assistance with the higher-education component of the program.

76. There is evidence of positive value for employers involved in training through the professional development of their staff, the positive impact on morale, the stimulus to explain and re-examine some practices, and so forth. In addition, all employers benefit from better-prepared newly qualified professionals. Some will participate out of duty to the profession, some because they believe the benefits will outweigh the costs. But much will depend on prior consultation and marketing of new programs; on developing programs which avoid most of the pitfalls discussed in this paper.

Classification, Grades, and Profiles

77. A different kind of problem arises when, for whatever reason, people wish to introduce or continue with grades or classified degrees as a means of recognizing a combination of ability (at least in what is assessed) and effort. This introduces a need for further sets of criteria, and for aggregation rules within or across courses to determine some overall mark. This aggregation of marks is simply a numerical mechanism for reducing a complex set of assessment judgements to a single figure; it is not related to the issue of aggregated performance discussed in the Part/Whole Problem paragraphs, except in so far as it can give the illusion of measuring aggregated performance when only fragmented aspects of performance have been assessed. This system conflicts both with the notion of binary decisions about

competence and with the progression models discussed under the Progression and Learning paragraphs.

78. One alternative is to adopt a profile system which reports performance in terms of progress along a limited number of dimensions (5–8). Some dimensions might use a binary Pass/Fail format, others a set of levels or stages which allow progress beyond a simple Pass to be recorded. This would cause a healthy debate between the relative merits of a profile based on aspects of competence (a generic skills approach) and a profile based on areas of competence (job roles and functions) or even some combination of the two.

79. Ultimately a good competence-based approach should provide both assurance of specified levels of competence in key areas and evidence, perhaps in profile form, of additional capabilities. To collapse this into a single mark would be to deny the complexity of professional work and to focus attention on selection in early adulthood on the basis of fairly shaky predictions, rather than on a commitment to achievement and lifelong learning.

5.   POLICY OPTIONS FOR NATIONAL ASSOCIATIONS

80. It is possible for national associations to move in the general direction of a competence-based qualification system through a series of projects. Each project would

- provide a foundation for later developments;

- increase the association's knowledge of the problems, costs, and benefits of embarking on any further projects;

- provide significant benefits to the profession, even if no further projects were to be commissioned;

- incur costs to the association and other participating organizations.

81. Suggestions for such projects are listed below. Some may have been undertaken already by some national associations, whose experience might be of interest to others.

Projects

Project 1: To Map the Domain of Work Requirements and Expectations of Newly Qualified Professional Accountants and Trainees about to Qualify.

82. This project would focus on current practice in a representative sample of organizations that train and/or recruit members of this population. The map will be needed for reviewing current qualification requirements and training arrangements. It could also indicate whether there is scope for small organizations to form training consortia to offer trainees a wider range of experience.

Project 2: To Review the Work of Professional Accountants 5–10 Years after Qualification, Then Decide on Any Qualification Needs Additional to Those Revealed by Project 1.

83. Judgement would be needed as to how the additional work undertaken by those more experienced professionals could best be prepared for. Choices include (1) development of relevant knowledge and skills during initial preparation; (2) natural, unstructured on-the-job learning; (3) continuing professional development; and (4) a post-qualification award. These are not mutually exclusive.

Project 3: To Develop a Set of Professional Standards Based on an Agreed Statement of Competence.

84. This would be the first project to involve the concept of competence in a rigorous manner. It would build on evidence from Project 1, and probably also Project 2; and would have to tackle most of the issues discussed in Section 3. This would provide a necessary foundation for both competence-referenced and competence-based approaches, and help all parties to understand the implications of adopting a competence-based or competence-referenced approach, before committing themselves to such a policy.

Project 4: To Require Higher Education Programs and Employers of Trainees to Develop Competence-Referenced Learning Programs and Support.

85. If this followed Project 3 it would be based on a common model of competence. If it did not, each would have to develop their own model of competence.

Project 5: To Plan a Development Program to Move in Stages Towards a Competence-Based System of Professional Preparation.

86. Starting from the set of standards developed by Project 3, pilot projects could be set up in which a group of higher-education/employer partnerships each tackled one or more of the problems revealed by the reviews of current practice. Their experience would then be used to develop a national system.

Project 6: To Carry out a Feasibility Study to Assess the Extent to Which Higher Education and Employers Could Change Their Practices Sufficiently to Meet the Demands of a Competence-Based Approach.

87. This would probably best be undertaken after Project 3 or Project 4, as an alternative to Project 5.

Project 7: To Adopt a Competence-Based Approach.

88. This would depend on prior completion of Project 3. It could be unwise to embark upon it without having also undertaken either Project 5 or Project 6.

6. CONCLUSION

89. This paper has set out a discussion on competence and its place in the formation of professional accountants. It concludes by summarizing policy options of member bodies and suggests a series of projects. A careful and detailed review of the paper is urged and it is suggested that at least some, if not all, of the projects should be undertaken. It is recognized, however, that each professional body will need to determine itself whether a competence- based system is appropriate to its overall framework of prequalification education, experience requirements, and assessment of ability.