

ACCREDITATION FOR TECHNICAL ABILITIES INCLUDING COMPUTER SKILLS

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Abstract

Sector Skills are defined by state-sponsored, employer-led organizations that cover specific economic sectors in the European Union and other countries in the world to reduce skills gaps and shortages, improve productivity, boost the skills of their sector workforces and improve learning supply. The accreditation and registration systems used by professional bodies raise the profile of the profession. In many countries including the European Union, professional associations are beginning to accept practice-based accreditation, generally as an alternative to their mainstream systems. Besides studying the certain agencies in the European Union for assessing/accrediting practical abilities, Accreditation for practical abilities of Information Communication Technology and Business Management/Language domains developed by Accreditation Council for Practical abilities are also studied in detail as an example to establish a similar agency in Turkey.

Keywords: practical ability accreditation, accreditation,

Introduction

As the chairman of ACPA (Accreditation Council for Practical Abilities), Takashi Sakamoto, indicates that industries have been under great pressure to drastically change in line with the rapid development of information science technologies, and corporations have needed to secure and train highly

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skilled personnel who can rise to the challenge of such changes. In accordance with this trend, universities are also now expected to provide human resources who have practical abilities and are ready to join the work force of a corporation. Industry's desperate need for skilled personnel is becoming an increasingly important issue.

National Occupational Standards (NOS) specify UK standards of performance that people are expected to achieve in their work, and the knowledge and skills they need to perform effectively. The occupational standards directory provides an exciting resource to help raise performance in business and industry. Occupational standards describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognized level of competence.

Professional accreditation is defined as the action of a professional body or registration authority in approving practitioners, normally after some form of examination or assessment, as fit or competent to practice.

There is a trend towards some form of practice-based or practice-related assessment (Eraut & Cole 1993), although in some cases this is no more than a post-experience written examination. The knowledge-base remains the primary focus of assessment in most professions, and alternatives are proving slow to gain acceptance.

The accreditation of "Occupational competence" is divided into a number of 'units of competence' representing key work functions, (normally) assessment through evidence of workplace competence, and open Access to anyone who is able to demonstrate the requisite level of proficiency. '**Occupational competence**' is defined as:

"... the ability to perform the activities within an occupation or function to the standards expected in employment. (This includes)... the ability to transfer skills and knowledge to new situations... organization and planning of work, innovation and coping with non-routine activities... (and the) personal effectiveness... to deal with co-workers, managers and customers. It stems from an understanding (that) to perform effectively in a work role an individual has to combine... performance of various technical and task components, overarching management of the various technical and task components to achieve the overall work function, management of the variance and

unpredictability in the work role and the wider environment, (and) integration of the work role within the context of the wider organisation, economic, market and social environment" (Training Agency 1988).

The Qualifications and Curriculum Authority

(QCA) in the U.K., which is responsible for regulating occupational standards revised design specifications (QCA 1999a), and there are several examples of occupational standards (e.g. Cultural Heritage National Training Organization 1999).

Turkey is in the process of becoming full member of the European Union. As part of Bologna Process the movement and mobility of work force within Europe is of big concern. There is a need to train our work force according to world standards so that they can freely move around in pursuit of better life. There are some efforts within Turkish Higher Education system to accreditate certain programs, however, there is no agency in the country to accreditate and certify work-based training and experience of individuals. We can establish an agency to accreditate of practical abilities by studying similar agencies in the world providing the same service to their work-force. We can take them as an example to establish such agency in our country and use their methods for our purpose without reinventing the wheels.

There are certain agencies in the European Union for assessing/accrediting practical abilities. One of them is **National Vocational Qualifications** (NVQs) are work based awards in **England, Wales** and **Northern Ireland** that are achieved through assessment and training. In **Scotland** they are known as **Scottish Vocational Qualification** (SVQ).

To achieve an NVQ, candidates must prove that they have the ability (competence) to carry out their job to the required standard. NVQs are based on **National Occupational Standards** that describe the 'competencies' expected in any given job role. Typically, candidates will work towards an NVQ that reflects their role in a paid or voluntary position. For example someone working in an admin office role may take an NVQ in Business and Administration.

There are five levels of NVQ ranging from Level 1, which focuses on basic work activities, to Level 5 for senior management.

- **Level 1** : Competence that involves the application of knowledge in the performance of a range of varied work activities, most of which are routine and predictable.
- **Level 2** : Competence that involves the application of knowledge in a significant range of varied work activities, performed in a variety of contexts. Collaboration with others, perhaps through membership of a work group or team, is often a requirement.
- **Level 3** : Competence that involves the application of knowledge in a broad range of varied work activities performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy and control or guidance of others is often required.
- **Level 4** : Competence that involves the application of knowledge in a broad range of complex, technical or professional work activities performed in a variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.
- **Level 5** : Competence that involves the application of a range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources features strongly, as do personal accountabilities for analysis, diagnosis, design, planning, execution and evaluation

Approximate academic equivalents

According to research by the London School of Economics

NVQs are not formally defined in terms of equivalence to conventional academic qualifications. However for the compilation of social statistics and

other purposes, approximate equivalences have to be established. The following equivalences are used by the London School of Economics's Research Lab[1]

- NVQ 1 = foundation GNVQ, three to four GCSEs at grades D-E, Business & Technology Education Council (BTEC) first certificate.
- NVQ 2 = five GCSEs at grades A*-C, BTEC first diploma.
- NVQ 3 = two or more A levels, BTEC Ordinary National Diploma (OND), City & Guilds Advanced Craft.
- NVQ 4 = BTEC Higher National Certificate (HNC) or Higher National Diploma (HND), or City & Guilds Full Technological Certificate / Diploma
- NVQ 5 =NQF 7-8

According to the Qualifications and Curriculum Development Agency

The **Qualifications and Curriculum Authority** and **Office of the Qualifications and Examinations Regulator** have created a list of equivalents that vary from the LSE ones listed below.

Explaining the National Qualifications Framework

The NQF helps learners to make informed decisions about the qualifications they need. They can compare the levels of different qualifications and identify clear progression routes for their chosen career.

It comprises nine levels (Entry level to level 8). Learners' progression routes do not necessarily need to involve qualifications at every level. Each accredited qualification has an NQF level. If qualifications share the same level this means that they are broadly similar in terms of the demand they place on the learner. However, qualifications at the same level can still be very different in terms of content and duration.

According to the University for the Creative Arts

NVQ 1

- GCSE, SCE, CSE,
- City and Guilds level 1 & part 1,
- RSA stage 1,
- Vocational certificate (BTEC, BEC, SCOTBEC or SCOTVEC 1st or general certificate)
- Basic literacy and numeracy qualifications, such as Wordpower and Numberpower

NVQ 2

- RSA Stage 2/ diploma,
- Pitmans intermediate,
- City and Guilds craft: (BTEC, BEC, SCOTBEC, TEC, SCOTEC or SCOTVEC 1st or general diploma),
- 1 A level, GNVQ or SNVQ

NVQ 3

- City & Guilds (level 3, part 3 or advanced), 2 or more A levels, GNVQ/ SNVQ

NVQ 4

- equivalent diploma, First degree, nursing or teaching qualification, HND

NVQ 5

- equivalent diploma, Master's degree PhD, PGC

According to City & Guilds

Level 4/NVQ 4 = Licentiate-ship-post nominal LCGI

Level 5/NVQ 5 = Graduateship-post nominal GCGI; Associateship-post nominal ACGI(1)

The above gives only guidelines as to the equivalence of these qualifications as they measure different things. NVQs are a measure of competence to do a job whilst Academic qualifications generally measure the individual's knowledge of a subject.

However since September 2006 the Academic qualifications rating has been changed from 5 to 8 levels.

Classifications

The NVQ Framework classifies the economy into the following areas:

- Tending animals, plants and land
- Extracting and providing natural resources
- Constructing
- Engineering
- Manufacturing
- Transporting
- Providing goods and services
- Providing health, social and protective services
- Providing business services
- Communicating
- Developing and extending knowledge and skill

<u>National Qualifications Framework in England and Wales and Northern Ireland</u>	
For higher levels, compare with the <u>FHEQ</u> system.	
Level 8	<u>City & Guilds Fellowship</u>
Level 7	<u>City & Guilds Membership, National Diploma*</u> , <u>BTEC Advanced Professional Diploma*</u>
Level 6	<u>City & Guilds Associateship, City & Guilds Graduateship, NEBOSH National Diploma, National Diploma*</u> , <u>BTEC Advanced Professional Diploma*</u>
Level 5	<u>Level 5 NVQ, Higher National Diploma, Higher National Certificate</u>
Level 4	<u>City & Guilds Licentiate, Level 4 NVQ</u>
Level 3	<u>City & Guilds Level 3, Level 3 NVQ, AS level, A level, National Diploma*</u> , <u>Ordinary National Certificate, Advanced Diploma, NEBOSH National General Certificate, Access to Higher Education Diploma, Advanced Extension Award, International Baccalaureate, Extended Project Qualification</u>
Level 2	<u>City & Guilds Level 2, Level 2 NVQ, GCSE (grades A* to C), BTEC First Diploma, OCR National, Skills for Life*</u>
Level 1	<u>City & Guilds Level 1, Level 1 NVQ, GCSE (grades D-G), Foundation Diploma, BTEC Introductory Diploma, Introductory Certificate, Skills for Life*</u>
Entry	<u>English for Speakers of Other Languages (up to level 3), Skills for Life*</u> , <u>Functional skills, Entry level certificates</u>

The **City and Guilds of London Institute (City & Guilds)** is a **United Kingdom** examining and accreditation body for vocational, managerial and engineering training, offering over 500 qualifications in 28 industry areas, spanning from entry level to the equivalent of a postgraduate degree.

Although City & Guilds offers a large number of specific examinations, it is also an accreditation agency ensuring that qualifications bearing its approval reach the appropriate standard. Over 1.7 million learners work towards City & Guilds qualifications every year.

Vocational qualifications

Nowadays City & Guilds continues as an examination board offering a large number of qualifications mapped onto the British **National Qualifications Framework (NQF)**. The most common are the **vocational qualifications**, from Entry-level to Level 3.

- **Entry-level** qualifications are the real basics, for absolute beginners.
- **Level 1** qualifications are introductory awards, covering basic tasks and knowledge.
- **Level 2** is slightly more advanced, needing some knowledge of the subject area.
- **Level 3** qualifications cover more complex tasks and also start the development of supervisory skills. In many professions, level 3 is the benchmark to be considered competent.

These qualifications are now in the process of being mapped onto the new **Qualifications and Credit Framework (QCF)**.

The range of qualifications cover the 'traditional' areas such as **as engineering, health and social care, hairdressing, automotive maintenance, construction, catering**, but also the more obscure such as **sheep shearing, DJing, flower arranging** and even **door supervision**.

Another example for accrediting practical abilities is from Japan. The Accreditation Council for Practical Abilities (ACPA) in Japan is a non-profit organization established in 2003 with the support of the government,

corporations and higher education institutions such as universities. Its objective is to establish a practical ability certification system through cooperation between the government, industry and academia, and to conduct activities aimed at nurturing human resources needed by society.

How ACPA operates:

The ACPA defines the types of workers needed by society, carefully inspects each course provided by educational institutions, corporations, etc., and clarifies the positioning of each course for the public, so that trainees can utilize this information as a guideline for acquiring practical abilities (Diagram 1).

The ACPA performs certification and accreditation of courses, course providers, educational institutions, lecturers, and trainees based on the criteria established by the ACPA.

This certification and accreditation of practical abilities meets the needs of industries. This leads to collaborative work of the universities and industries to improve the quality of their courses for students and professionals.

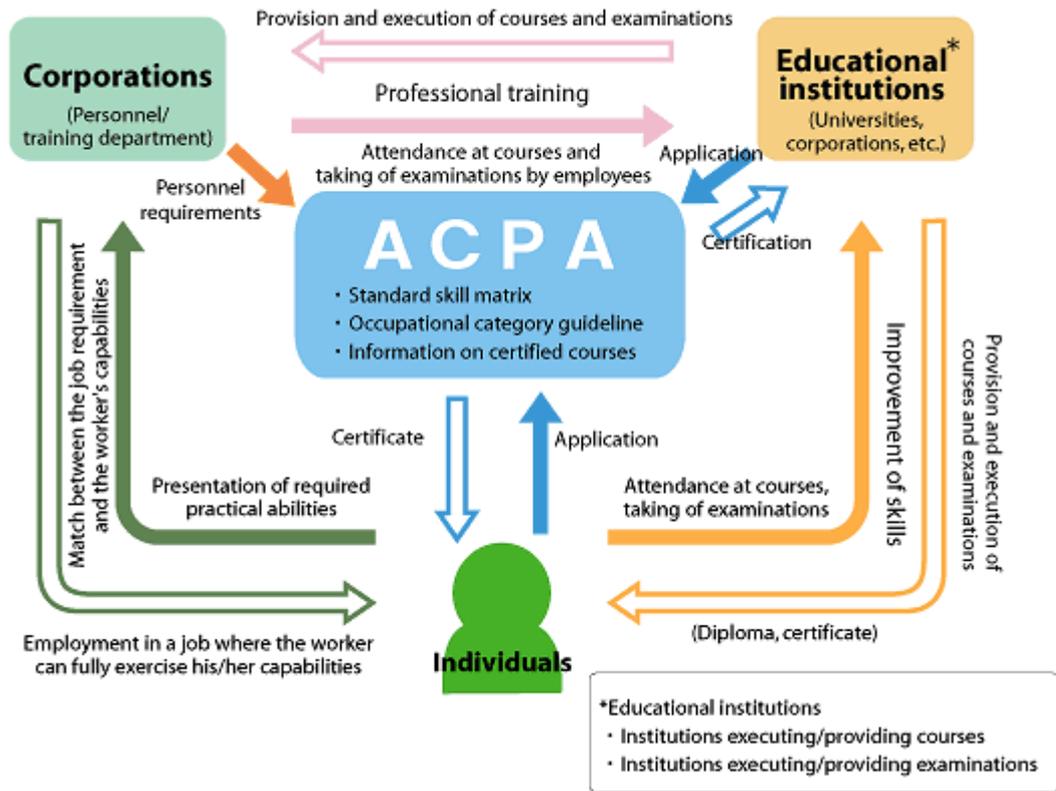


Diagram1. How ACPA operates.

The ACPA certifies personnel training courses, educational institutions, and qualification examinations based on its evaluation criteria with the aim of nurturing human resources capable of executing tasks professionally (practical abilities). The ACPA also certifies individuals who complete a certified course or pass a certified examination as possessing the knowledge and skills required for their occupation or assignment.

The certification and accreditation services provided by the ACPA can be summarized as shown in the following diagram.

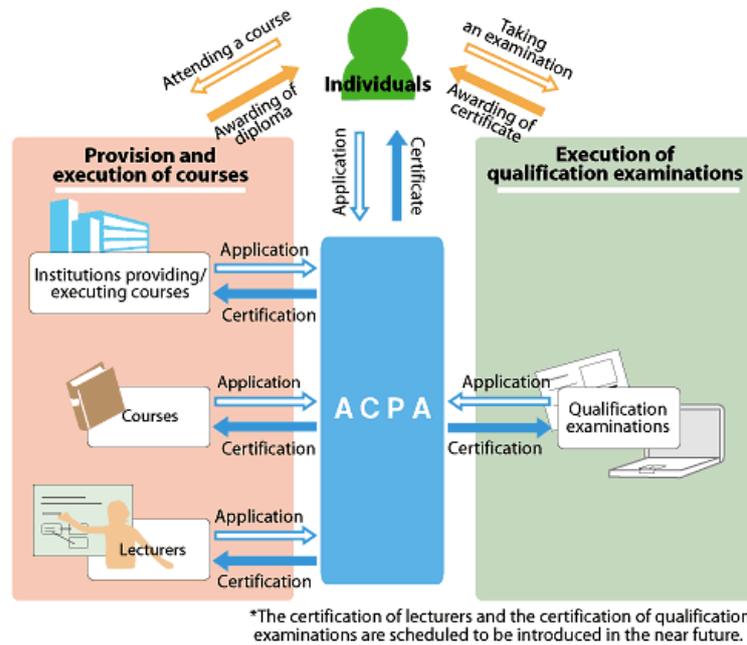


Diagram 2: The certification and accreditation services provided by the ACPA

Qualification examinations are awarded with the certification when they are recognized as effective for determining the practical ability level of each individual. The ACPA is also planning to undertake certification of lecturers capable of teaching on certified courses based on its evaluation criteria, and thus continues to promote certification and accreditation services for institutions that can provide a high-quality educational environment (course materials, curricula, lecturers).

The following certification and accreditation services were fully launched in April 2006, and are currently available.

Course certification (only IT and business skill courses)

Institution certification (certification for course-providing institutions)

Institution certification (certification for course-executing institutions)

Certification of individuals

Results and Discussion

In the European Union, particularly, the U.K., **National Occupational Standards** (NOS) specify UK standards of performance that people are expected to achieve in their work, and the knowledge and skills they need to perform effectively. The occupational standards directory provides an exciting resource to help raise performance in business and industry. For example, they even established The Professional Accreditation of Conservator-Restorers. (Stan Lester, 2000). We may think to install of communication equipment into vehicles a simple task, however, in the U.K., they established FITAS as the FCS (Federation of Communication Services) Installer Training and Accreditation scheme. FCS has, since 2003, been the owner of the UK code of practice for the install of communication equipment into vehicles - MPT1362.

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