



# Creating a quality workforce

## Ensuring competency and ability in a global era

by Cynthia D. Woodley

Economic globalization is radically transforming labour relations in today's world. Advances in information technology, personal mobility, and increasing intergovernmental cooperation to deregulate trade and lower labour market barriers have fostered a vibrant global marketplace for goods and services. These conditions have promoted intense competition leading to historic increases in cross-border mergers and acquisitions. These actions have, in turn, stimulated new forms of global enterprise such as international professional service firms in areas like accounting and management consultancy. But even more significantly, they have promoted the rise of transnational corporations that have become one of the most powerful economic and political entities in the world today.

According to a report by the US Department of Commerce, businesses, companies and industries are globalizing business operations on an increasing basis through the:

- Manufacturing supply chain
- Movement of goods across borders through trade
- Movement of capital

- Flow of technological and intellectual property.

Hiring a competent workforce in such a global environment is not easy. Among the challenges are unfamiliarity with the education or training of workers from other countries, job title and scope differences in previous work experiences, and the difficulty

in determining their knowledge, skills and attributes (KSAs).

### Certifying people

Globalization and international mobility require some mechanisms to ensure that workers educated and experienced abroad are competent. Without substantial research and expense, an employer would have no way of knowing if two educational programmes in two different countries are equivalent, or if a worker's previous experience, tasks and knowledge in one country would be similar to those in another despite having the same job title.

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*The assessment and evaluation process is the single most important activity.*

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For example, how can an employer know if a school teacher in one country has the same knowledge required to work as a school teacher in another?

An increasingly dependable means of verifying knowledge, skills and attributes is the use of personnel certification programmes. These programmes, unlike product or management systems certification, certify that people have the required KSAs to function in a particular job. They systematically and scientifically provide reasonable evidence of job competence so that employers may have confidence in the person being considered for employment.



The demand for personnel certification programmes has resulted in tremendous growth in the number of personnel certification bodies. These programmes are now verifying the knowledge and skills of workers in industries such as health care, banking, construction, aerospace, automotive, food, travel and tourism and in specific areas such as the use of spreadsheet software and crane operation.

Personnel certification facilitates labour mobility and market efficiency. It requires individuals to continue to upgrade their

training and to focus on outcomes in a cost-efficient manner, regardless of how the skill is obtained. Personnel certification supports the process of professionalization as a normative value system and facilitates occupational change. In this way, it highlights and promotes trust and global confidence.

The certification of persons requires careful thought and the application of scientific measurement techniques to ensure that only those individuals who possess the required KSAs are certified. Without adherence to measurement principles, credentials can be awarded to individuals based on a flawed assessment or process.

Enter ISO/IEC 17024:2003, *Conformity assessment – General requirements for bodies operating certification of persons*, to help certification bodies operate in a consistent, comparable, and reliable manner. The standard's objective is to achieve and promote a globally accepted benchmark for organizations operating the certification of persons.

It is intended to be the basis for the recognition of certification bodies and their certification schemes, in order to facilitate their acceptance at the national and international levels. Only the harmonization of the system can establish the environment for mutual recognition and the global exchange of personnel.

### Putting the puzzle together

The separation of training activities from certification activities is an essential and mandatory component of a personnel certification programme.

### Indispensable tool

ISO/IEC 17024:2003, *Conformity assessment – General requirements for bodies operating certification of persons*, is organized into the following components which should be the major functional areas of a personnel certification body:

- Structural requirements (organizational structure and separation of any personnel certification body activities in training candidates for certification activities)
- Resource requirements (including conditions for personnel and examiners)
- Records and information requirements (including the non-disclosure and security of confidential information)
- Development and maintenance of the certification scheme
- Development and maintenance of the assessment and evaluation process/instruments
- Suspending, reducing or withdrawing certification
- The use of certificates, logos and marks
- Appeals and complaints.



This is because assessments such as examinations are used to determine if the candidate has the knowledge and skills to be considered competent. But examinations are not designed to measure everything that a candidate knows, rather, they will test a random sample of the body of knowledge the candidate is expected to have.

If a trainer has had exposure to the examination content, instead of teaching everything that a candidate needs to know, the trainer might instead focus on the specific content of the examination. The candidate would then pass but might not have knowledge of the full range of content. Similarly, if the source of a personnel certification body's income is revenue from training, it would be possible for the organization to compromise the examination process for the sake of driving more students to the training programme.

Other clauses aim to ensure that the certification programme is developed with input from all appropriate stakeholders instead of just a small group of individuals. The value in certification lies in the fact that broad-based stakeholder input was obtained and the knowledge and skills being assessed represent what is actually required for the job and not just the opinion of one or two individuals.

### Assisting not hampering

Personnel certification bodies have a responsibility to ensure that all personnel involved in the assessment or examination





of candidates are qualified, have been trained for their roles and responsibilities, follow all procedures prescribed by the personnel certification body, are regularly monitored and evaluated, and have signed appropriate confidentiality, non-disclosure, and conflict-of-interest documents.

*Are candidates passing or failing because they have received an easier or harder exam?*

If personnel are acting as examiners, they also have to be calibrated to ensure that certification decisions are consistent from one location to another. This helps to ensure that candidates are being assessed fairly in a standardized way and are not assisted or hampered by the personnel who are assessing them.



## Guaranteeing confidentiality

Personnel certification documents can be divided into two types for purposes of security and non-disclosure. First are documents relating to specific candidates.

Candidates are the owners of the information provided to personnel certification bodies. This includes names, addresses, phone numbers, educational/training qualifications, work experience, and test scores. This information should not be disclosed to anyone without the prior consent of the candidate. Application for a credential should not force anyone to give up the right to keep this information confidential.

Second are examination materials. This includes test questions, examinations, and answer keys. These confidential materials should be kept secure to ensure candidates are not exposed to them. Therefore anyone who has access to these materials must be made to understand the importance of confidentiality.

## A foolproof scheme

The development and maintenance of the certification scheme, together with the development, administration and maintenance of the assessment/examination are two of the most difficult areas for non-measurement professionals to understand and implement without outside consultation.

As in many other professions, there is a science to the development and maintenance of personnel certification schemes and assessments. The common mistake made by many personnel certification bodies is assuming that subject matter expertise is all that is needed to develop a valid and reliable process to measure the competence of an individual. However, entire university programmes associated with test and measurement have been built around the science of measuring the knowledge and skills of people.

Using textbook or training curriculum as the sole basis for assessment is not a valid process. Personnel certification schemes must be based on the KSAs required for competent performance. Evidence must be provided to show that all content (knowledge and skills) directly corresponds to a task that the worker does on the job. This evidence is normally provided through a process such as a job/task analysis (JTA) that delineates all of the tasks associated with a given job and all of the KSAs associated with each of those tasks.



Additionally, evidence in the form of data must be provided to show that stakeholders agree that the tasks and KSAs are related to the job. This is normally provided through a survey validation of the JTA with a larger stakeholder group. Care must be taken in the development of the certification scheme to ensure its validity, and psychometrically sound measurement models must be used to develop the certification scheme.

## Defining excellence

The assessment and evaluation process is the single most important activity conducted by a personnel certification body. It is the deciding factor on whether the candidate has the necessary knowledge and skills, and is thus the foundation upon which the decision to award a credential is based.

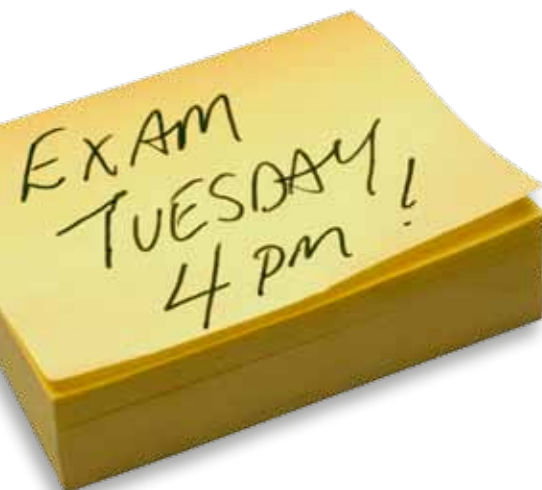
However, it is also the most complex component of the personnel certification programme. Creating an examination process that produces valid, reliable and legally defensible results is difficult and intricate. It is not simply a matter of creating a few test questions or witnessing a candidate perform an activity.

Care must be taken when creating and implementing an examination process to ensure that it measures required knowledge and does so consistently. Take, for instance, an essay question. How can the personnel



certification body be assured that the question is not just measuring the candidate's ability to read or write? Is it possible that the candidate has the knowledge the question was designed to measure, but failed because of poor reading or writing skills?

If an examiner is witnessing a candidate complete an assessment activity, how does the personnel certification body know that the examiner is being objective? Would a different examiner end up with the exact same conclusion? How can the certification body make sure that examiners' personal opinions or biases do not affect their ability to remain objective?



When establishing a passing score (the score that delineates a passing candidate from a failing candidate), how does the personnel certification body know that this is the point that separates the candidates who pass from those who fail? How can it be certain that candidates who score higher have the KSAs for the credential, while those who score lower do not? Or that different forms of the same examination have the exact same level of difficulty? Do candidates pass or fail because they received an easier or harder exam?

How does the personnel certification body know that each and every test item is functioning and that flawed items have been removed from the exam? And that each and every candidate is given the examination under identical conditions, regardless of where or when he or she is taking the exam?

All of these questions must be addressed as part of the examination development, administration and maintenance process. The science of measurement (psychometrics) is designed to ensure that assessments and examinations are accurate and work as intended.

ISO/IEC 17024 incorporates the foundations of the science of measurement. It

provides confidence to business, industry and consumers that a person who has been awarded a credential by a personnel certification body has the knowledge and skills to perform the required competencies.

## Limiting damage

By definition, a certificate attests that the candidate has met the requirements for certification including demonstrating the knowledge to perform the competencies. When candidates fail to uphold the requirements of the credential, or otherwise demonstrate incompetence, it is the responsibility of the personnel certification body to revoke the certification. Otherwise the certification loses its value.

## Branding awareness

Persons who hold a certificate from a personnel certification body want to be able to announce they have met the requirements for certification. This is often accomplished through the display of certificates and professional logos and the use of professional designations and marks on business cards and other documents.

It is through these certificates, logos and marks that employers and the public are made aware that the person has been assessed to ensure he or she has the knowledge for competent performance. Personnel certification bodies have a responsibility to develop policies and procedures for the use of their certificates, logos and marks and, at the same





time, to ensure that they are not misused by persons holding the certification or others.

### And if things go wrong...

Personnel certification bodies must deal with appeals and complaints made against the certified person as well as against the personnel certification body itself. This must include the research and resolution of all complaints in a fair and unbiased manner. Normally, this is accomplished through an impartial committee or group seated specifically for the purpose of resolving appeals and complaints.

*With ISO/IEC 17024, personnel certification bodies can provide global confidence to employers.*

The resolution of appeals and complaints in an unbiased manner helps ensure that all activities of the personnel certification body remain true to the purpose of awarding the certification only to those persons who demonstrate the knowledge and skills required for competent performance. And that certifications are taken away from individuals following unethical or incompetent behaviour.

### World class standard

ISO/IEC 17024 specifies all of the essential elements of a personnel certification body.



All of the previously mentioned components are delineated within the standard. ISO/IEC 17024 is not prescriptive, but provides sufficient guidance for personnel certification bodies to inform them of the major mandatory activities that must be followed for a valid, reliable and legally sound personnel certification programme.

By following ISO/IEC 17024, personnel certification bodies can better create programmes which provide global confidence to employers.

### Becoming the world's help-wanted adverts

The development of personnel certification bodies helps expand the global workforce by assisting the world's employers in determining if workers educated and experienced outside of their countries have the knowledge and skills required for the job. But the development of the assessments and evaluations used by the personnel certification bodies must be carefully and scientifically developed to ensure that they do indeed accomplish what they are intended to.

The operations of personnel certification bodies must be based on detailed and thorough policies and procedures ensuring that their principal goal is to award credentials

to persons who successfully demonstrate knowledge and skill. These policies and procedures also ensure that personnel certification bodies operate at the highest of standards and quality.

ISO/IEC 17024 provides information to assist personnel certification bodies to meet these goals and award certification to persons on whom the employers of the global workforce can rely and depend. ■

### About the author



**Dr. Cynthia D. Woodley** is Vice President and a psychometrician with Professional Testing Inc., in Orlando, Florida, USA. For more than 30 years,

Dr. Woodley has developed and managed personnel certification examination programmes. Prior to her appointment at Professional Testing, Dr. Woodley was a faculty member at the University of Central Florida. Dr. Woodley is the Convenor of ISO/CASCO working group WG 30, *Certification of persons*.