

## CERTIFICATION: MEANINGS, ADVANTAGES, AND STANDARDS

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WHAT IS IT?	<p>There are literally hundreds of websites linked to the topic of “certification.” So what is certification? Its purist form, certification refers to the credential obtained after a person formally demonstrates competence in a particular area of expertise.</p>
TECHNICAL STANDARDS	<p>Certification programs are usually based on technical guidelines and standards of the testing industry. These guidelines and standards provide criteria for evaluating all aspects of tests and testing programs such as test construction, evaluation, administration, and documentation.</p> <p>The best known standards for developing certification programs are the <u>Standards for Educational and Psychology Testing</u> published by the American Educational Research Association, the American Psychological Association, and the National Council for Measurement in Education.</p>
ADVANTAGES OF CERTIFICATION	<p>Competencies and certification are closely linked. Just the fact that an organization employs individuals with demonstrated competencies and dedication to learn new skills can favorably affect how the organization deals with the public and with clients. There is a positive effect when an organization can say that their staff is certified in a variety of areas.</p> <p>Most organizations invest substantial sums of money into staff training. However, not all organizations go beyond training and certify individuals in the competencies acquired during training and working in the organization.</p> <p>Employers may fear that employees will leave once they have certifiable skill sets that are recognized by the industry. The costs of certification are well worth the effort because they are counterbalanced with increased productivity and effectiveness.</p> <p>Employees themselves may be reluctant to support certification because they may not be able to pass the examination. In such cases, employees may have a genuine concern because they do not possess the skill set. However, once the deficiency is identified it would be to the employees’ and the employer’s advantage to recognize the deficiency and take action.</p> <p>Nonetheless, promoting certification demonstrates to employees that developing and maintaining a strong corporate culture is crucial to an organization’s success. If the organization encourages its team members to become certified, it conveys the message that the organization values and respects employees.</p>

WHO NEEDS IT?	<p>Certification examinations have various uses:</p> <ul style="list-style-type: none"><li>• <u>Personnel selection</u>: Employers can use certification as an independent evaluation of competency when training employees, e.g., civil service examinations, promotional examinations.</li><li>• <u>Employment credential</u>: Employees can use certification as a credential that signifies possession of specific knowledge and training, e.g., voluntary advanced certification from professional organizations.</li><li>• <u>Standard of competency</u>: Professionals use credentials issued by government agencies or private organizations as a standard of competency in a specific area of expertise, e.g., license.</li></ul>
ESSENTIAL COMPONENTS	<p>The best analogy is the development and construction of a building. First, the organization should agree upon the reason why it should be built. Second, meticulous plans should be developed ---this may involve systematic review of resource materials, collection of relevant data from incumbents and supervisors, determination of relevant codes and standards, and development of a blueprint. Third, the actual structure is constructed according to the specifications in the blueprint. Fourth, procedures for evaluating the completed structure should be developed.</p> <p>Thus, a quality certification program has several components:</p> <ul style="list-style-type: none"><li>• <u>Rationale</u> – An organization must agree upon a rationale for creating a certification program so that the scope of the program can be defined. What are the objectives of the certification program and what will certification mean to prospective certificants and end users?</li><li>• <u>Task analysis</u> – The content and dimensions to be assessed must be clearly defined through a comprehensive analysis of the job. Information can be gathered from a number of resources such as face-to-face interviews, focus groups, published literature, and documentation. A skilled job analyst can integrate the information into test specifications that cover specific subject matter areas.</li><li>• <u>Test development and construction</u> – The items, or questions, for the credentialing examination must follow the specifications derived from the task analysis. The persons selected to write the items provide the linkage between the items and the blueprint specifications.</li><li>• <u>Passing standards</u> – There must a common understanding of the expectations for success. Passing standards are essential for both prospective certificants and end users.</li><li>• <u>Evaluation procedures</u> – The program would not be complete without some mechanism to evaluate and re-evaluate its efficacy. Such procedures include statistical analysis of results and re-evaluation of development and administrative processes and procedures.</li></ul>
TASK ANALYSIS	All credentialing examinations should start with a task analysis (sometimes

called a job analysis, occupational analysis, or practice analysis). The purpose of the task analysis is to establish the empirical basis for the content of examinations, provide the empirically based specifications for test content, and link the examination to job-related behaviors or learning objectives.

Task analyses should be conducted according to technical and professional standards of the testing industry. The process is challenging particularly when the subject matter is complex or overlaps excessively with other professions.

A task analysis quantifies job behaviors into constructs that can be measured objectively. A task analysis includes such procedures as:

- Gathering data from technical documentation to identify critical subject matter areas
- Defining the specific content that a candidate would be expected to master at the time of certification
- Using statistical methodologies and focus groups to identify important subject matter commensurate with the knowledge and training of prospective certificants
- Developing test specifications that detail the proportions of subject matter to be assessed

A task analysis always involves a thorough review of technical documentation and literature, relevant studies of the profession or related professions as well as an outline of all project steps. The results of a task analysis can be used to enhance or even create training programs and performance standards to measure success of the training.

#### TEST DEVELOPMENT AND CONSTRUCTION

Testing professionals abide by standards and guidelines used in the testing industry to develop items for the examination. The process is a systematic, structured one that is deeply rooted in the scientific method. Unless the process is followed, the examination may not be reliable or valid and lead to false assumptions about the scores of persons who sit for the examinations.

There are no shortcuts for producing quality test items. Several procedures can improve the quality of the items and increase the number of items that survive critical review:

- Selecting groups of technical experts that are a representative mix of persons from a variety of work settings
- Developing test specifications that provide a detailed description of the subject matter areas to be included in the examination
- Training item writers how to write well-constructed items
- Having groups of item reviewers other than the item writers, critically review the content of the items

Several workshops may be needed to develop an examination. Collectively, the groups of technical experts in different workshops provide the objectivity necessary to produce test questions that can fairly assess a candidate's competence. At least three to four times the number of test items required to construct an examination should be developed. Large item pools are required to produce several alternate forms of the examination.

PASSING  
STANDARDS

The criterion-referenced passing score or “cut score” reflects the level of competence of a person who is certified. This means that the standard stays the same regardless of the percentage of persons who pass the examination.

A criterion-referenced passing score may vary slightly from examination to examination to account for differences in the difficulty of the questions contained in a particular form of the examination---something that a fixed percentage, such as 70%, does not do.

Several methodologies can be used to establish the passing score, all of which determine the difficulty of individual test items in a systematic way. The most defensible passing score utilizes the following procedures:

- Constructing equivalent forms of the examination by selecting items of similar difficulty
- Selecting a group of subject matter experts that are representative of the mix of practice specialties
- Developing a definition of minimum competence that is acceptable to the profession
- Training a group of subject matter experts how to rate the relative difficulty of items
- Having the group take the examination under test-like conditions and make ratings for each item
- Providing opportunities for subject matter experts to share their rationales for their ratings

A passing score established by these procedures should not be unduly influenced by political influences or special interest groups. If the passing score is raised or lowered to suit such interests, the organization runs the risk of passing candidates who do not possess the knowledge or skills that would enable to perform job tasks.

EVALUATION  
PROCEDURES

No credentialing program would be complete without a mechanism for continuous evaluation. Several issues should be considered:

- Do item statistics indicate that the items (questions) assess the intended content knowledge from prospective certificants?
- Are prospective certificants given sufficient information regarding the topics to be assessed?
- Is there consistent documentation of development and construction processes?
- Are procedures in place to update the specifications?