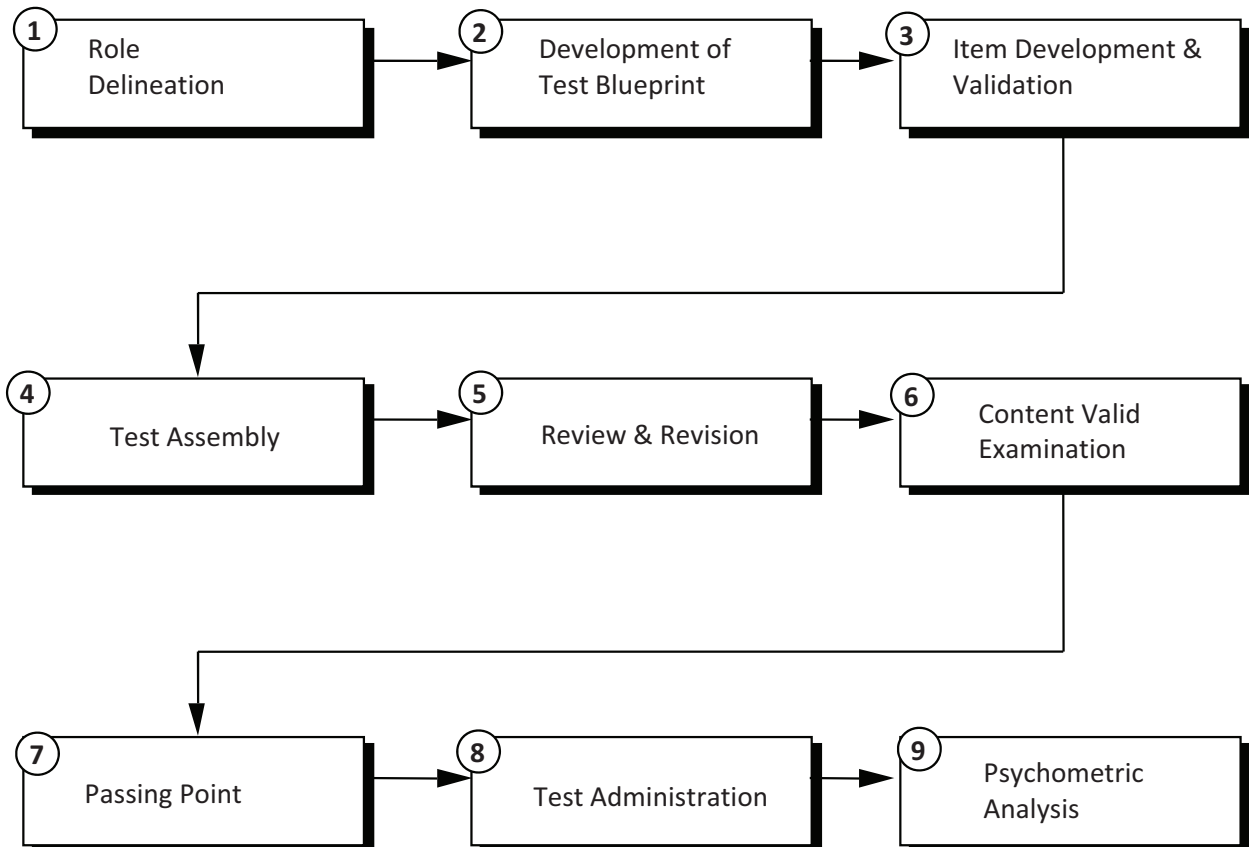


## STEPS IN THE CONSTRUCTION OF A CONTENT-VALID EXAMINATION



**Role Delineation.** Before developing an examination, a role delineation study determines the knowledge and skills that define a minimally competent professional in the field to be tested. Linking the knowledge and skills defined in the role delineation study to the examination content ensures that an examination is content valid. In psychometric terms, validation is how a test developer documents the competence inferred from an examination test score.

During the role delineation process, a committee of subject matter experts defines the overall performance domains associated with competent practice. These performance domains are further broken down into more distinct tasks, knowledge, and skills required on the job. The job responsibilities developed by the subject matter experts are then validated through a survey of practitioners. The practitioners review and rate the domains and tasks according to their importance, criticality, and frequency of performance.

**Development of Test Blueprint.** In the next step, the results from the validation survey are used to develop a blueprint, or a plan, for the examination. The information regarding the importance, criticality, and relevance of each domain and task is translated directly into the percentage of items that should be included in the examination for each content area. This blueprint guides the item development and examination assembly process and ensures that the examination reflects the relative importance of the required knowledge and skills.

**Item Development and Validation.** All examination items are written by experts in the practice field. Each item writer is trained in writing, reviewing, editing, and validating items. Each item is reviewed and validated by at least three other subject matter experts and must have at least two verifiable references. Each item is classified by content category, assigned a cognitive level, and validated according to its appropriateness to the certification-level practitioner. After development, items are reviewed to ensure they are psychometrically sound and grammatically correct.

**Test Assembly.** Each examination is created by randomly selecting the appropriate number of items from each content area, as specified in the test blueprint.

**Examination Review and Revision.** The draft examination is reviewed by subject matter experts for technical accuracy and by psychometric experts to ensure its psychometric integrity. At this time, item performance data are available for those items that were used on previous examination versions. Using the statistical item analyses, inappropriate or questionable items are either revised or omitted from the examination.

**Content-Valid Examination.** The procedures described above are accepted procedures for developing reliable and content-valid examinations. Each step in the test construction process is carefully documented. Multiple reviews by content and psychometric experts and the use of stringent criteria strengthen the validity of the test. Continuous evaluation of each examination's reliability maintains the consistency of the test to measure examinees' skills accurately.

**Passing Point.** A valid credentialing examination must have a defensible passing score. The cut-off score that separates examinees who pass from examinees who fail must be based on the minimum competence required to protect the public from harm. A criterion-referenced approach called the Modified Angoff Technique is often used to determine the cut score or passing point of an examination. This technique is currently considered by the testing profession to be one of the most defensible criterion-referenced methods available for setting passing points.

**Test Administration.** Test administration procedures must ensure consistent, comfortable testing conditions for all examinees. For secure examinations, procedures must address examinee admission into the room, seating charts, display of information signs, security, time allocation, and other aspects of the administration. Testing facilities must meet guidelines that ensure security, proper room size, ventilation, rest room facilities, handicap accessibility, and noise control.

**Psychometric Analysis.** Following the test administration, the item statistics are reviewed to ensure quality and validity. Items with poor performance statistics are evaluated by subject matter experts prior to scoring. These items then are tagged for review at the next meeting.