

EEO Certifications Institute: Test Validation Core Competencies and Study Guide

Legal framework/history underlying the validation of selection/assessment instruments

- Knowledge of the issues and implications of Griggs v Duke Power Company (Griggs v. Duke Power Company, 401 US 424, 1971).
- Knowledge of the Civil Rights Act of 1964 as amended by the 1991 Civil Rights Act with respect to evaluating hiring practices.
- Knowledge of role of the Uniform Guidelines on Employee Selection Procedures as they related to the development and validation of selection procedures.
- Knowledge of the 1990 Americans With Disabilities Act.
- Basic knowledge regarding the Joint Standards
- Basic knowledge regarding the SIOP Principles.
- Knowledge regarding employer size and Civil Rights compliance obligations.
- Knowledge regarding the "five sources of validity" provided by the professional standards.

Analyzing jobs in order to establish critical and essential tasks and critical KSAs that are required at entry to the position.

- Knowledge of the "essentials" and process of establishing content validity.
- Knowledge of the "essentials" and process of establishing criterion-related validity.
- Knowledge of the "essentials" and process of establishing construct validity.
- Ability to determine whether a job task represents an "essential job function" as defined by the 1990 Americans with Disabilities Act (ADA).
- Ability to evaluate the defensibility of a job analysis for use in establishing the validity of a hiring assessment.
- Knowledge of the requirements for a person to serve as a Subject Matter Expert in a job analysis study.
- Ability to identify a *bona fide* occupational qualification.
- Knowledge of the requirements for a job knowledge, skill or ability to be appropriate for use for selection purposes.
- Knowledge of the requirements for establishing the transportability of a previously validated assessment to another location or position.
- Knowledge of the various scales used to rate the importance and job-relatedness of job duties.
- Knowledge of the various scales used to rate the importance and job-relatedness knowledges, skills, and abilities.
- Knowledge regarding post-offer tests under the 1990 Americans with Disabilities Act (ADA).
- Knowledge regarding the which knowledge, skills and abilities can be tested under content validity for both knowledge and skill/ability tests.

Methods of assessing knowledges, skills, abilities, and other personal characteristics

- Knowledge of the term "validity" as it is applied to assessment procedures.
- Knowledge of the term "reliability" as it is applied to assessment procedures.
- Ability to determine the kinds of tasks, knowledges, skills, and abilities that are and are not appropriate for use in assessment.
- Knowledge of appropriate measures for use in measuring cognitive skills (e.g., reading, writing, math, problem solving).
- Knowledge of appropriate measures for use in assessing situational judgment, customer service, and interpersonal skills.
- Knowledge of appropriate measures for use in assessing personality factors to predict job performance (e.g., the "Five Factor" personality model).
- Knowledge of appropriate formats/techniques for writing multiple choice items.
- Knowledge of the requirements and appropriate methodologies to use when assessing training and experience.
- Ability to identify sample size issues that should be considered when conducting job analyses.
- Knowledge of the uses of "job/desk audits" in identifying job content.

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- Ability to identify the types of knowledge, skills and abilities that can be measured using content validity.
- Knowledge regarding "test use" requirements for ranking scores.
- Knowledge regarding "test use" requirements for banding.
- Knowledge regarding "test use" requirements for setting pass/fail cutoffs.
- Knowledge regarding "test use" requirements for weighting/ combining test scores.

Evaluating testing instruments and procedures

- Knowledge of the different methods of assessing/establishing the reliability of assessment procedures.
- Knowledge of the appropriate strategy for establishing reliability based on the type of assessment method used.
- Knowledge of the level of reliability an assessment should have to support the use of an assessment instrument for selection.
- Ability to evaluate criterion measures for use in a criterion validation study.
- Ability to interpret item-total correlations as evidence of the effectiveness of individual test items.
- Ability to interpret item p-values or other difficulty indices when evaluating test items.
- Basic understanding of the concepts of validity generalization versus location/situation-specific validity.
- Ability to discuss issues related to Differential Item Functioning and test/item bias.
- Knowledge of implications of "statistical power" when interpreting test statistics as evidence of validity or test bias.
- Knowledge of typical validity coefficients associated with various testing methodologies (i.e., validity levels that can be expected from measuring various KSAs).
- Knowledge regarding the threats to validity studies (e.g., "criterion contamination")
- Knowledge regarding the factors that increase reliability and threats to test reliability.
- Different between "fairness" and "adverse impact."
- Methods for insuring test fairness, and methods for evaluating test fairness.
- Knowledge of sample size requirements for establishing content validity.
- Knowledge of sample size requirements for establishing criterion validity.
- Knowledge of methods for transporting validity evidence.
- Knowledge of methods for evaluating "alternate employment practices" or "alternate selection procedures" to help mitigate adverse impact.
- Knowledge of differences between structured and unstructured interviews.
- Knowledge of basic "best practices" surrounding Unproctored Internet Testing.
- Knowledge of predictive v. concurrent criterion validation designs.
- Knowledge regarding "acceptable threshold" levels for validity.
- Knowledge regarding "acceptable threshold" levels for reliability.
- Conceptual understanding regarding the fundamentals of Item Response Theory (IRT).
- Knowledge regarding Multiple Hurdles versus Compensatory Models of testing.
- Knowledge regarding "best practices" for retesting applicants.

Statistics/psychometrics pertaining to assessment

- Knowledge of relationship between reliability and statistical validity (e.g., "theoretical maximum")
- Knowledge regarding the use and application of the "Standard Error of Measurement" (SEM).
- Knowledge of standard scoring (Z-scores, T-score, stanines, percentage scores, percentile scores, establishing norms, etc.)
- Knowledge regarding "effect sizes."
- Knowledge regarding utility analyses (e.g., expectancy charts).
- Knowledge regarding statistical factors that influence statistical validity (e.g., base rates, selection ratios, range restriction, test reliability, etc.)
- Knowledge regarding ways to equate test forms.
- Knowledge regarding ways to assess cross validation (shrinkage formulas, empirical cross-validation studies, etc.)
- Knowledge regarding statistical regression and evaluative techniques (e.g., outliers).

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USEFUL STUDY MATERIALS

- **Federal Uniform Guidelines on Employee Selection Procedures and associated information**
<http://www.uniformguidelines.com>

- **EEOC's facts on Employment Procedures**
http://www.eeoc.gov/policy/docs/factemployment_procedures.html