

# Validity and Reliability of Assessments

Proven Validity and Reliability of Assessments, courtesy of Subject Matter Experts & robust Interview Mocha process

## Need for Validity of tests for Enterprises:

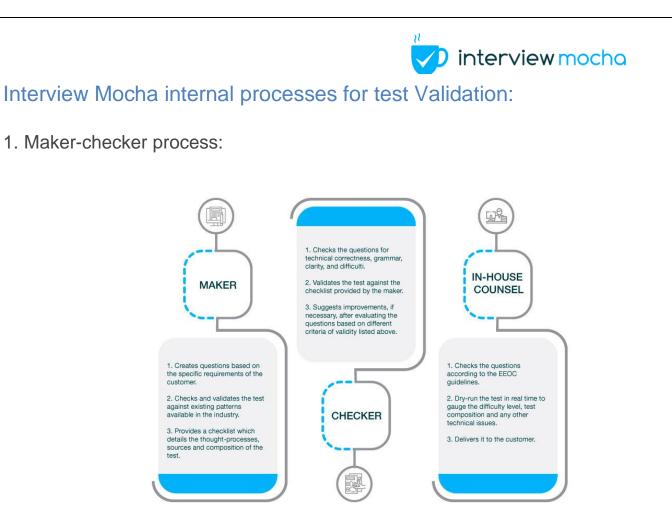
Validity is the extent to which a test measures what it claims to measure. It is vital for a test to be valid in order for the results to be accurately applied and interpreted. Validity isn't determined by a single statistic, but by a body of research that demonstrates the relationship between the test and the behavior it is intended to measure.

# How to validate pre-employment tests

- **Criterion** The extent to which the result of a test corresponds to other valid assessments of the same concept.
- **Face** the degree to which a test appears to be related to a specific skill/purpose in the judgment of non-experts such as test takers.



- **Construct** The extent to which the test covers all aspects of the concept being measured.
- **Content** The adherence of a test structure to existing theory and knowledge of the skill being assessed.



#### 2. Difficulty Index:

Question Difficulty Index helps to assess the difficulty level of each question in comparison to the difficulty level that was assigned while creating the question. When any question gets created, SMEs assign a difficulty to it. However, as the question gets attempted by candidates, the actual difficulty level may change.

For e.g. while creating a question the difficulty level assigned might be Easy, whereas the majority of the candidates may not find it that easy to solve the question. In this case, the Assigned Difficulty Index is Easy, whereas the Difficulty Index calculated will be medium.

### 3. SME selection process:

For our maker-checker system to work without a glitch, we generally adopt strict measures to gauge, identify and finalize subject matter experts who might be able to help us make questions, and also check them for consistency, clarity and assessment quality in the final stage. The SMEs who get selected have to adhere to all of the parameters mentioned below:

a. The SME should have a cumulative work experience of 5-15 years in the relevant field/fields.



- b. The SME should have conducted research into the said field and submitted work to other companies which deal with the same knowledge structures.
- c. The SME should be able to not just provide questions, or create a questionnaire but also be able to provide a significant insight into the construction of the test via two parameters:
  - a. Problematic meaning what does the test wish to achieve/intent/purpose
  - b. **Thematic** meaning the basic principles/ideologies/conceptualizations on which the test is constructed
- d. The SME has to submit sample questions (a questionnaire) along with a signed document of each question having passed the <u>EEOC guidelines</u> and a document entailing the thought, research and execution strategies behind the questionnaire. This is checked by our experienced in-house counsel and after a thorough investigation into the machinations of the test and its questions, the SME is finalized.



# Need for Reliability of tests for Enterprises:

Reliability is the degree to which an assessment tool produces stable and consistent results, under the same circumstances.

#### **Reliability parameters:**

- Test-retest reliability: Test is attempted by homogeneous groups during different times.
- Inter-rater reliability: Multiple observers attempt the same test and validate it.

# Interview Mocha internal tools for test Reliability:

A reliability coefficient is generally the procedure through which we can test how reliable a particular test is. We, at Interview Mocha, calculate the correlation between two different parameters (test performance and job performance) by a correlation coefficient (which ranges from -1.0 to +1.0). Our tests are within the range of +.75 & +.80.

Interview Mocha ensures that each one of our tests go through extensive processes of validity and reliability in order to be competent and bias-free. All the assessments created are strictly in conformance with <u>UGESP</u> and Equal Employment Opportunity Commission Guidelines (EEOC). Each question is tested on the following criteria:

Interview Mocha Test Cases	Yes	No
Question refers to a <b>specific race?</b>		
Question refers to a specific color?		
Question refers to a specific religion?		
Question refers to a specific gender?		
Question refers to a specific nationality?		
Question refers to a specific caste?		
Question refers to a <b>specific tribe?</b>		
Question has keyword: <b>war?</b>		
Question has keyword: fight?		
Question has keyword: murder?		
Question has keyword: suicide?		
Question has keyword: homicide?		
Question has keyword: terrorism?		
Question has keyword: <b>rape?</b>		
Question has keyword: fraud?		

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Question has keyword: drugs?	
Question has keyword: <b>politics?</b>	
Question has keyword: earthquake?	
Question has keyword: tornado?	
Question has keyword: flood?	
Question has keyword: military conflict?	
Question has keyword: <b>psycho?</b>	
Question has local terminology?	
Question has syntactic error?	
Question has grammatical error?	
Question has <b>colors</b> that are difficult to read for a Color blind person?	
Question has <b>images</b> that are difficult to read for a Color blind person?	
Question has <b>passage</b> which is difficult to read for a Color blind person?	