

Different types of validity

Table 2. Different types of validity, when they are used, how they are computed, and what they mean

Type of validity	When you use it	How you do it	An example. What you can say when you are done?
Content validity	When you want to know whether a sample of items truly reflects an entire universe of items for which the test is designed, or to ensure that the measure covers the broad range of areas within the concept under study	You can use a panel of “experts” to make a judgement that the items of a test are adequately sampled to reflect the content area. In addition, a panel can help to limit the “expert” bias (for example, a test reflecting what an individual personally consider are the most relevant items).	After a common consultation, a group of professors who teaches during a semester the course of research methods and statistics in higher education, agreed on a series of weekly quizzes aimed at verifying each theme included in a common curriculum. After they applied this set of assessment tools, they concluded that the quizzes fairly evaluated the themes of the curricula.
Criterion validity	When you want to know whether test scores are systematically related to other criteria that indicate that the test taker is competent in a certain area. Criterion validity assesses whether a test reflects a set of abilities in a current or future setting, so you need to establish the concurrent or the predictive validity, depending on the purposes of the test.	Correlate the scores from the test with some other measure that is already valid and that assess the same set of abilities.	<p><i>For concurrent validity:</i> A physics program designed a measure to assess cumulative student learning throughout the major. This new measure is correlated with a standardized measure of ability in this discipline, such as an ETS field test. The higher the correlation between the established measure and new measure, the more faith stakeholders can have in the new assessment tool.</p> <p><i>For predictive validity:</i> There is a significant correlation between SAT (School Admission Test) scores and grades in college.</p>
Construct validity	When you want to ensure that the assessment tool actually measures the studied construct, and not other variables. It was previously associated especially with tests of abstract concepts, (honesty, anxiety, or need for achievement, etc.) rather	Correlate the set of test scores with some theorized outcome that reflects the construct for which the test is being designed. A construct is a group of interrelated variables.	Suppose you intend to design an assessment tool of aggression. In this regard, you should get a theoretical overview from the criminology literature. You discovered that aggressive men adopt certain behaviours more than non-aggressive ones, such as: inappropriate touching, violence, lack of successful social interactions, etc. Then,

	<p>than with tests of more concrete constructs (knowledge of the national history, ability to conduct a car, writing ability, etc.). Now construct validity is seen as the sum of all types of evidence related to the validity of test scores.</p>	<p>you establish a scale of aggression, with items related to aggressive and non-aggressive behaviours (for example, handedness, helping benevolence, etc.). Once the scale is completed, you investigate if positive scores correlate with the presence of aggressive behaviours and do not correlate with non-aggressive behaviours. If the correlation is high for the items that you predicted should correlate and low for the items that should not, then you can conclude that there is something about the aggression scale you have constructed (perhaps the items measuring aggressive behaviours) that works.</p>
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Sources: The content of the table is adapted from Salkind (2017), Phelan and Wren (2005-6), and Klieger et al. (2020).

Notes:

1. If you want to find more details about each type of validity, read Salkind (2017: 175-180).
2. See details about what ETS and GRE tests means:
<https://news.ets.org/stories/gre-test-validity-putting-it-in-perspective/>.