Understanding Validity for Teachers Activity: What is construct-related validity?

This activity will help you answer the essential question:

• What is construct-related validity?

Activity 4: What is construct-related validity?

You may complete this activity individually or in groups.

Read the excerpt from CollegeBoard and then answer the following questions:

- Why should Construct-Related evidence of validity be considered when developing educational tests?
- What would be the consequences of a state-wide reading assessment that lacked construct-validity?
- Why should a classroom teacher understand construct validity?

Construct Validity (CollegeBoard)

Construct validity refers to the degree to which a test or other measure assesses the underlying theoretical construct it is supposed to measure (i.e., the test is measuring what it is purported to measure).

As an example, think about a general knowledge test of basic algebra. If a test is designed to assess knowledge of facts concerning rate, time, distance, and their interrelationship with one another, but test questions are phrased in long and complex reading passages, then perhaps reading skills are inadvertently being measured instead of factual knowledge of basic algebra.

Construct validation requires the compilation of multiple sources of evidence. In order to demonstrate construct validity, evidence that the test measures what it purports to measure (in this case basic algebra) as well as evidence that the test does not measure irrelevant attributes (reading ability) are both required. These are referred to as convergent and discriminant validity.

Convergent validity consists of providing evidence that two tests that are believed to measure closely related skills or types of knowledge correlate strongly. That is to say, the two different tests end up ranking students similarly.

Discriminant validity, by the same logic, consists of providing evidence that two tests that do not measure closely related skills or types of knowledge do not correlate strongly (i.e., dissimilar ranking of students).

Both convergent and discriminant validity provide important evidence in the case of construct validity. As noted previously, a test of basic algebra should primarily measure algebra-related constructs and not reading constructs. In order to determine the construct validity of a particular algebra test, one would need to demonstrate that the correlations of scores on that test with scores on other algebra tests are higher than the correlations of scores on reading tests.