Improving Literacy Brief

Understanding Screening

VALIDITY

Validity is broadly defined as how well something measures what it's supposed to measure. The reliability and validity of scores from assessments are two concepts that are closely knit together and feed into each other. Marianne Miserandino's *Ice Cream Personality Test* can help illustrate their overlap and differences. This assessment is often used to demonstrate the concepts of reliability and validity. A group of participants answers two questions. The first question asks the participant to select their top ice cream preference from a list of six flavor options. The second question asks the participant which of six personality descriptions best fits their personality. The reliability of scores could be demonstrated by administering the questions twice over a two-week period and then correlating the responses for each question over the assessment period. A higher correlation for each question across the two-week testing would provide evidence that participants' ice cream preferences and personality selections were stable over two weeks. Where reliability would be evaluated through the consistency of scores, validity is concerned with how well a set of scores reflects the intended construct or domain being assessed.

In our *Ice Cream Personality Test* example, if a researcher hypothesized that ice cream preference is associated with personality description, a moderate to strong correlation between ice cream and personality preference would provide ***an*** evidence of validity. This qualifier, ***an*** evidence of validity, is used because there are many ways to operationalize and provide evidence for how well scores (e.g., from an assessment such as a screener) reflect what an assessment is supposed to measure. A unifying perspective for the validity of screener scores is that there are six broad forms of validity that may be housed under an umbrella term of *construct validity*.

1. **Content validity** are the characterizations of the assessment content's relevance, the overall representativeness of the content (e.g., test items or stimuli), and the quality of the test items or stimuli.
2. **Substantive validity** is established through a description of the theoretical rationales that explain consistency in one's response to test items.
3. **Structural validity** describes how well the grouping of scores within an assessment aligns with the theoretical grouping of what the item content measures.
4. **Generalizability** is concerned with the interpretation of scores and how well they generalize across different samples and different time points.

5. **External validity** includes sub-areas of *convergent validity* (e.g., how well sets of scores that ***should be*** correlated ***are*** correlated), *discriminant validity* (e.g., how well sets of scores that ***should not be*** correlated ***are not*** actually correlated), *concurrent validity* (e.g., how well a set of scores at one time point correspond to scores at the same time point) and *predictive validity* (e.g., how well a set of scores at one time point predicts scores at another time point).
6. **Consequential validity** describes the implications for what happens when correct decisions or decision errors occur based on screener scores.

SUGGESTED CITATION

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WHERE DO I GO FROM HERE?

- For more information about identifying high quality screening tools: https://intensiveintervention.org/
- For more information about screening processes: https://improvingliteracy.org/whitepaper/screening-dyslexia

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VALIDITY

WHAT IS VALIDITY?

Validity is an important aspect of high-quality instruments used to measure academic progress. It is how well a tool measures what it's supposed to measure.

Validity is like the ice cream personality test

In the test, individuals first select their top ice cream preference from a list of six flavor options. Then, they identify which of the six personality descriptions best fits their personality.

If ice cream preference is associated with personality description, a moderate to strong correlation between ice cream and personality preference would provide evidence that the test is valid.

Six forms of construct validity

Content validity: The characterizations of the screener content's relevance, the overall representativeness of the content, and the quality of the test items or stimuli.

Structural validity: How well the grouping of scores within a screener aligns with the theoretical grouping of what the item content measures.

External validity: The sub-areas of convergent validity, discriminant validity, concurrent validity, and predictive validity.

Substantive validity: Established through a description of the theoretical rationales that explain consistency in one's response to test items.

Generalizability: The interpretation of scores and how well they generalize across different samples and different time points.

Consequential validity: The implications for what happens when correct decisions or decision errors occur based on screener scores.

National Center on Improving Literacy

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