

Chapter 2

RELIABILITY AND VALIDITY

OUTLINE

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 - A. Meaning
 - B. Direction
 - C. Strength
 - D. Interpretation
- V. Reliability Types
 - A. Test-retest reliability
 - B. Alternate forms reliability
 - C. Inter-rater reliability
 - D. Internal consistency
 - E. Standard error of measurement
 - F. Factors that influence reliability
- VI. Validity Types
 - A. Content validity
 - B. Construct validity
 - C. Criterion-related validity
 1. concurrent validity
 2. predictive validity
 - D. Factors that influence validity
- VII. Multicultural Considerations
- VIII. Reassessing Akis
- IX. Activities
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CONCEPTS AND VOCABULARY

Reliability

Validity

Correlation coefficients (r)

Direction of r

Strength of r

Interpretation of r

Test-retest reliability

Alternate forms reliability

Inter-rater reliability

Internal consistency

Split-half reliability

Kuder-Richardson

Coefficient alpha

Standard error of measurement

True score

Obtained score

Confidence intervals

Content validity

Construct validity

Criterion-related validity

Concurrent validity

Predictive validity

QUIZ QUESTIONS: CHAPTER 2

Multiple Choice

1. The following coefficient indicates the strongest relationship between two variables:
 - a. .54
 - b. .98
 - c. -.22
 - d. -.99

2. The following coefficient is not possible:
 - a. .01
 - b. .99
 - c. 1.09
 - d. -.97

3. Internal consistency is a type of:
 - a. Validity
 - b. Standard deviation
 - c. Reliability
 - d. Error

4. Participants taking a test again after a 2-4 week time period could show:
 - a. Internal consistency
 - b. Inter-rater reliability
 - c. Content validity
 - d. Test-retest reliability

5. When examining the direction of r :
 - a. One looks at the sign of r
 - b. One looks at the size of r
 - c. One looks at the strength of r
 - d. None of the above

6. When examining the strength of r :
 - a. One looks at the sign of r
 - b. One looks at the size of r
 - c. One looks at the direction of r
 - d. None of the above

7. The following is true of alternate forms reliability:
 - a. It is the same as equivalent forms reliability
 - b. It is the same as parallel forms reliability

- c. It is important for tests with more than one form.
 - d. All of the above
8. Which of the following is a type of criterion-related validity:
- a. Predictive
 - b. Concurrent
 - c. Content
 - d. a & b
9. What is the cutoff r for most tests?
- a. .8
 - b. .95
 - c. .85
 - d. .9
10. Which of the following is true?
- a. A test must be reliable in order to be valid.
 - b. A test must be valid in order to be reliable.
 - c. A test must have no error in order to be valid.
 - d. A test must have no error in order to be reliable.

True-False

- 1. An obtained score is always less than a true score.
- 2. A true score is always less than an obtained score.
- 3. All published tests meet the requirements for validity.
- 4. All published tests meet the requirements for reliability.
- 5. Reliability means consistency of scores.
- 6. Validity means quality of test.
- 7. Reliability and validity are negatively affected by error.
- 8. A test must be valid in order to be reliable.
- 9. The exact true score is never known.
- 10. All tests have good content validity.

Short Answer

- 1. Give two examples of acceptable reliability coefficients in a standardized test used to determine eligibility of a student for special education services.
- 2. Compare and contrast reliability and validity.
- 3. Compare and contrast content and construct validity.
- 4. Compare and contrast internal consistency and concurrent validity.
- 5. Name two types of reliability and two types of validity.

Essay/Activities

1. Go to <http://www.pearsonassessments.com/>. Choose a test. Report on the validity and reliability coefficients of that test.
2. Examine a test manual. Report on the validity and reliability of that test.
3. Suppose a child had Attention Deficit Disorder. How would that affect the reliability and validity of the test results?
4. Make a visual representation of reliability.
5. Make a visual representation of validity.

CHAPTER TWO – ANSWER KEY

Multiple Choice: 1-d; 2-c; 3-c; 4-d; 5-a; 6-b; 7-d; 8-d; 9-d; 10-a

True/False: 1-F; 2-F; 3-F; 4-F; 5-T; 6-T; 7-T; 8-F; 9-T; 10-F