



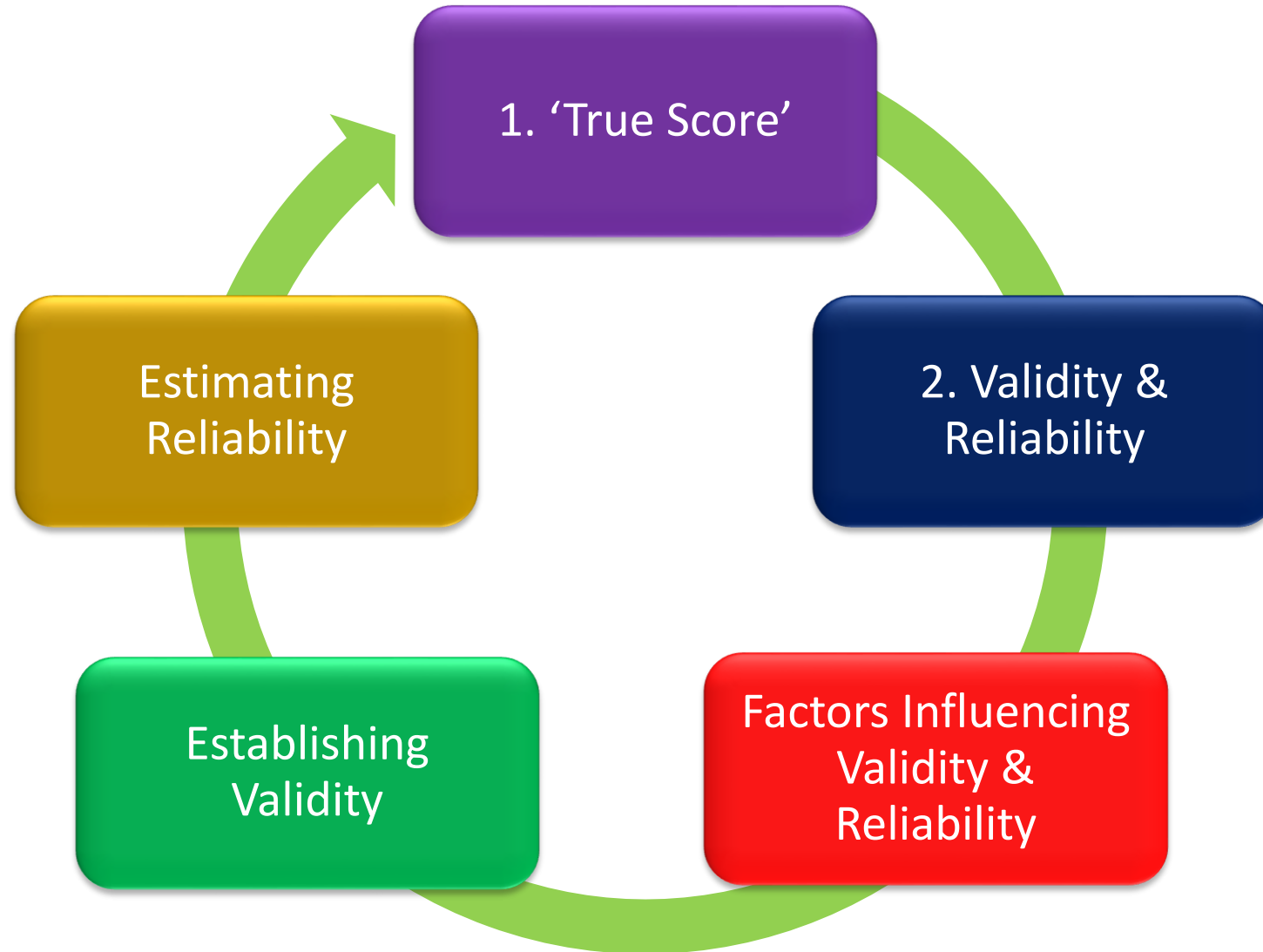
Validity and Reliability in Assessment

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Synopsis

Two important features of a good test are validity and reliability. In this topic, participants will develop an understanding of the procedures used in assessment to establish test validity and reliability. This will be done through interactive lectures and activities which have been designed to encourage them to draw and reflect on their own assessment practices.

Outline





Learning Outcomes

1. Demonstrate the understanding of the true score concept;
2. Analyze the relationship between validity and reliability;
3. Identify factors influencing the validity and reliability;
4. Apply techniques of establishing the validity of a test; and
5. Apply techniques of estimating the reliability of a test.

Content

- Understanding the true score, validity and reliability
- Relationship between validity and reliability
- Factors affecting validity and reliability
- Types of validity
- Establishing a test's validity
- Estimating a test's reliability
- Reliability coefficient
- Methods of estimating reliability
- Improving test reliability



What is ...

- Evaluation?
- Assessment?
- Measurement?
- Testing?

Why are they important?

Points to Ponder

- “The test taken asked questions that were not discussed and covered by the lecturer”.
- “The test does not cover all the contents; it only asked questions on certain topics. There are many more topics that have been discussed in the class but are not covered”
- “There are many typo errors in the test; the language used is difficult to understand, and sometimes misleading.”
- “There were many disruptions during the test. The PA system was not working properly; we could hardly hear the announcements. There was construction work going on next to the examination hall”.



What is a 'true score'?

Why is it important?

Can we obtain a true score?



What is validity?

What is reliability?

What is the relationship between reliability and validity?

Why are both important in educational testing?

What are the factors are affecting reliability and validity?

Reflection;

“All of us studied the same model questions given by our tuition teacher. Up till the morning of the exam, we were still memorizing the answers,” said one of the boys. According to him, the method was how most students prepare for their examinations.

- *Sunday Star*, 8 Mac 1998, p. 3

Types of Validity

What is content validity?

What is criterion validity?

What is construct validity?

How do you establish that your test possesses content, criterion and construct validity?



Establishing Test Validity

Activity 1

List the learning outcome(s) of a program, a course, or a lesson of your interest. Clarify what are the concepts and constructs of each learning outcome that the student should master? Based on those concepts and constructs, develop questions and items using the appropriate verbs. Explain how do you can determine whether your questions and items have high content, construct and criterion validity?

Estimating Test Reliability

What is the reliability coefficient?

What is test-retest?

What are alternate forms of a test?

What is internal consistency?

How do you estimate whether your test possesses high reliability?

How are you are going to improve your test?



Estimating Test Reliability

Activity 2;

Using your established test and the students' item scores, estimate the reliability of your test. How are you going to improve your test's reliability and its items?



Learning Resources

Kubiszyn, T. & Borich, G. (1996). Educational Testing and Measurement, 5th Edition. New York: HarperCollins

<http://research.collegeboard.org/services/aces/validity>

<http://testing.wisc.edu/Reliability.pdf>

[http://www.uwosh.edu/testing/.../test-scoring/...1/reliability-**validity**](http://www.uwosh.edu/testing/.../test-scoring/...1/reliability-validity)