

Validity

□ **Validity**

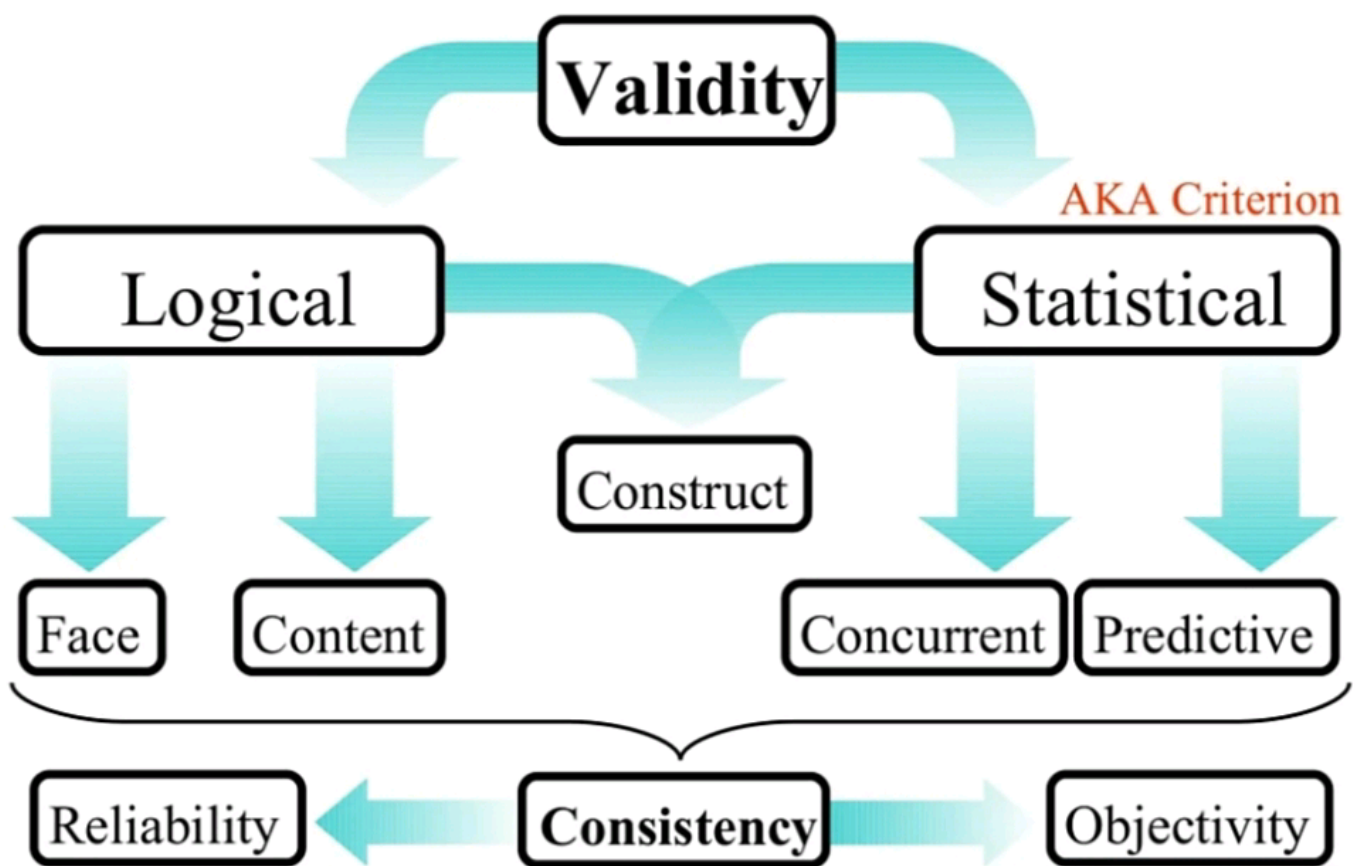
- Validity is the extent to which a test measures, what it is supposed to measure.
- The question of validity is raised in the context of the three points:
 - ✓ the form of the test,
 - ✓ the purpose of the test and
 - ✓ the population for whom it is intended.

VALIDITY

- Indicate the degree to which an instrument measures what it is supposed to measure
- It is the extent to which differences found with a measuring instrument reflect true differences among those being tested
- For a test to be reliable it also need to be valid

Types of Experimental Validity

- Internal
 - Is the experimenter measuring the effect of the independent variable on the dependent variable?
- External
 - Can the results be generalised to the wider population?



Types of Validity

1. External Validity:

- External validity occurs when the causal relationship discovered can be generalized to other people, time and contexts.
- Correct sampling will allow generalization and hence give external validity.

2. Internal validity:

- Internal validity occurs when it can be concluded that there is a causal relationship between the variables being studied.
- It is related to the design of the experiment.

3. Content Validity:

- When we want to find out if the entire content of the behavior/construct/area is represented in the test we compare the test task with the content of the behavior.
- This is a logical method, not an empirical one.
- Example, if we want to test knowledge on American Geography it is not fair to have most questions limited to the geography of New England.

4. Face Validity:

- Face validity occurs where something appears to be valid.
- This depends very much on the judgment of the observer.

5. Test Validity:

- a) **Criterion:** Correlation with the standards.
- b) **Predictive:** Predicts future values of criterion.
- c) **Concurrent:** Correlates with other test.

6. Construct Validity:

Construct validity accurately represent reality.

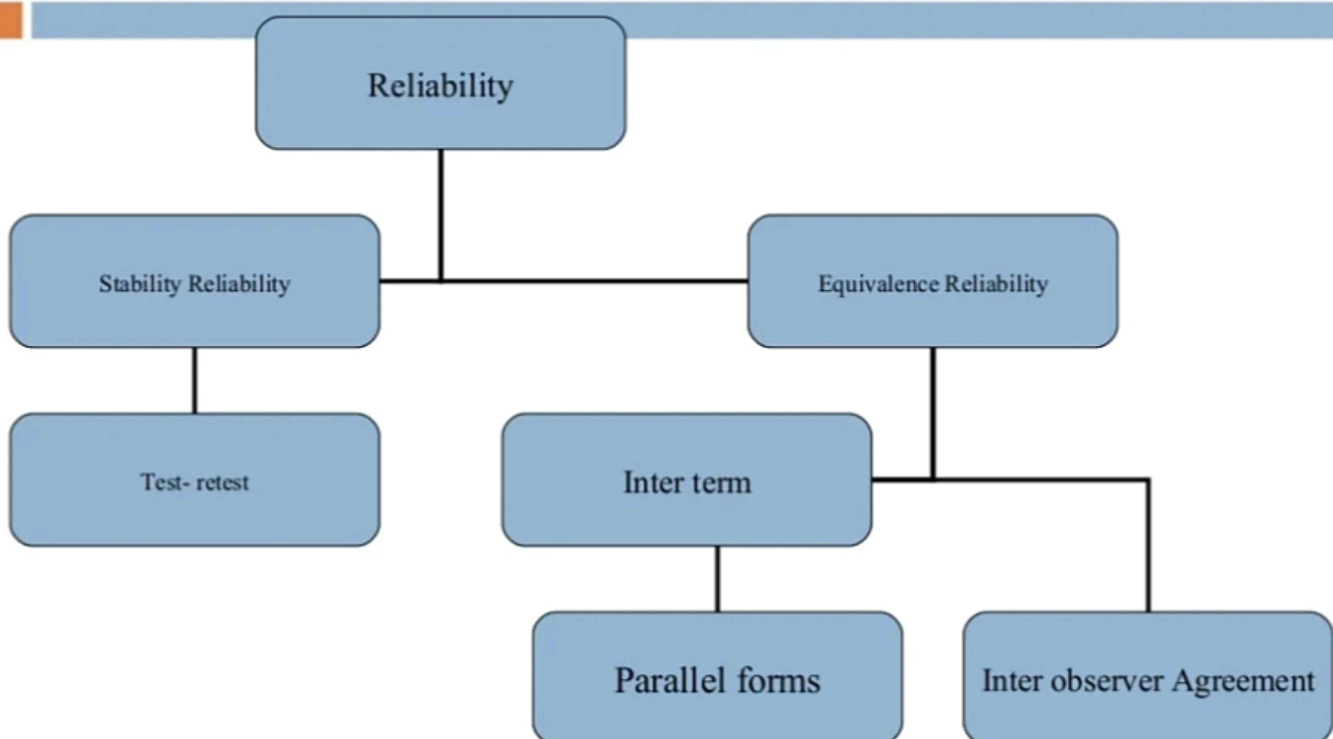
- a) **convergent:** Simultaneous measure of same construct correlate.
- b) **Discriminant:** Doesn't measure what it shouldn't.

Reliability

Reliability

- Reliability is the degree to which a test consistently measures whatever it measures.
- When a measurement procedure yields consistent scores when the phenomenon being measured is not changing
- Degree to which scores are free of “Measurement Error
- Consistency of the measurement

Types of reliability



Types of Reliability

1. Stability Reliability:

Test-retest:

- Test-retest reliability is the degree to which scores are consistent over time. It indicates score variation that occurs from testing session to testing session as a result of errors of measurement.
- Same test- different Times
- Only works if phenomenon is unchanging
- Example: Administering the same questionnaire at 2 different times


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Types of reliability

2. Equivalence Reliability:

a) Inter-item reliability: (internal consistency)

- The association of answers to set of questions designed to measure the same concept
- *Cronbach's alpha* is a statistic commonly used to measure inter-item reliability which is based on the average of all the possible correlations of all the split 1/2 s of set of questions on a questionnaire.

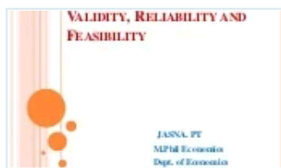
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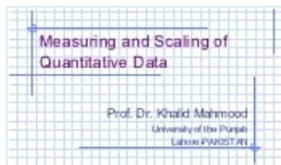
An Idea about Validity and Reliability

Education

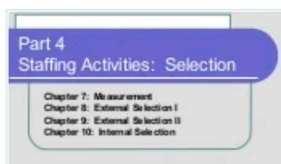
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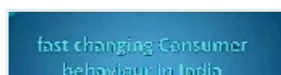
Validity, reliability and feasibility
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Types of reliability

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Types of Reliability

b) Parallel form of Reliability

Split-Half Reliability:

- Especially appropriate when the test is very long. The most commonly used method to split the test into two is using the odd-even strategy.
- Since longer tests tend to be more reliable, and since split-half reliability represents the reliability of a test only half as long as the actual test.

C) Inter observer Reliability:

Correspondence between measures made by different observers.

Relationship between Validity & Reliability

- Necessary but not sufficient
- Reliability is prerequisite for measurement of validity
- One needs reliability but it is not enough

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Topic :- Tools and Techniques of data collection.

Sub topic :-Reliability and validity

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