EPSY 5244: Survey Design

Validity: The degree to which theory and evidence supports the intended interpretations and uses of scores

We validate score interpretations and uses.

Validation is the collection of evidence. There are many forms of validity evidence, not different forms of validity. Validity is not an either/or, it is a continuum.

Here we explored possible (example) interpretations and uses of survey data. Once an interpretation or use is articulated, we can begin to think about what evidence to collect to support or defend those interpretations and uses. This is validation (the collection of evidence to support the intended interpretations and uses).

Validity Evidence for Survey Data

*Based on the intended interpretation and use of data*

1. Are the responses plausible?
   1. Internal agreement checks (internal consistency in responses)
   2. Do responses across similar questions agree
   3. Identifying faking, extreme responses, lying
   4. Pattern responding
   5. Minimum number of items with responses
2. Measuring person attributes or characteristics (composites)
   1. What is the attribute we are measuring? [accuracy]
      1. Content evidence required
      2. Theory, literature, prior measures
      3. Individuals from the target population agree with our definition and operationalization of this attribute
   2. Is the score consistent or reliable? [precision]
      1. Score reliability
      2. Item discrimination
   3. Are scores associated with other relevant variables?
      1. Criterion-related validity evidence (correlations with other variables)
3. Accurately summarizing true intent of your population.
   1. Did respondents interpret questions as you intended?
      1. Think alouds
      2. Piloting results
      3. Key-informant reviews of the survey
      4. Followed evidence-based item-writing guidelines
   2. Are respondents consistent in their answers?
      1. Internal agreement across items
      2. Score consistency or reliability
4. Help inform decision making (policy decisions) to promote community responsiveness and preparedness.
   1. Representativeness and coverage of the population.
      1. Sampling design (stratification) – special attention to the sampling frame
      2. Set the sample size to achieve certain level of precision
   2. Minimized multiple sources of survey error
      1. Nonresponse error – report missingness (non-respondent study)
      2. Measurement error
   3. Generalizability of the topic – extent to which responses are context specific
      1. Theory about the context-specific variables (validity generalization)
      2. Expert review or endorsement
      3. Local review and endorsement
      4. Look for availability of base-rates in new communities
      5. Examine “regional” variation within your own sample
5. To inform program design or curriculum design (program staff)
   1. Responses are accurate and plausible
      1. Minimized measurement error
      2. Etc. (as above)
   2. Content-related evidence, domain coverage, program theory of action
   3. Program main goals and objectives are included in the survey
   4. Participants are the “right” participants (sample demographics)