

USD Survey Research: Survey Construction

I. Steps in Survey Construction

- a. decide what information is needed
- b. draft some questions
- c. put them into a meaningful order and format
- d. pretest the instrument and review the results
- e. revisit prior steps and revise instrument as needed

II. Open and Closed Questions (2 Broad Question Formats)

- A. Open Questions: no preformed response categories
- advantages: hear respondent's voice, collect novel information
 - disadvantages: misinterpret question, repetitious or vague, variation in respondents' ability to articulate an answer, labor-intensive to process and categorize

Is the Question Vague or Clear?

Example: About how long ago did you move to your present home?

This question can be answered:

- When my wife died.
- A short while ago.
- When the kids were little.
- Seven years ago.

B. Closed Questions

- advantages:
 - reduce response variability
 - common response categories have been tested extensively
 - reduce respondent burden
 - ease of coding and analysis
- disadvantages:
 - suggest answers that the respondent may not have thought of
 - force respondents into a frame of reference

III. Response Categories

- A. researcher specifies the answer categories most suitable to the purpose
- dichotomous scale – two responses “yes” “no” – yields less reliable information, poor response distribution, increases measurement error
 - 5-point scale - more reliable measurement, can be aggregated in analysis
Excellent, Very good, Good, Fair, Poor
Strongly agree, Agree, Somewhat agree/Somewhat Disagree, Disagree, Strongly disagree
 - list of choices
 - time or frequency intervals
- B. include a category for every respondent
- role play different scenarios to assure coverage

- C. use mutually exclusive time and frequency intervals with equal integers unless measurement dictates otherwise
 - a. None
 - b. 1-2
 - c. 3-4
 - d. 5-6
 - e. More than 6
- D. introduce response categories using balanced language

E.g., To what extent do you agree or disagree with the following statements?

 - define terms
 - include “Don’t Know” or “Not applicable” when necessary
 - include “Other (Please specify)”
 - format of response categories

E.g., vertical rather than horizontal presentation

IV. Principles of Question Writing

- a. use clear, simple and specific language
- b. avoid double barreled questions – where two questions are asked as one
- c. avoid loaded or leading questions
- d. group items by topic
- e. present items in a logical sequence – general to specific

V. Question Order and Flow

- a. question order matters – there can be order effects
- b. assure a logical flow - respondent’s perspective
- c. begin with content relevant questions
- d. cluster questions into topics - broad to specific
 - a. use skips
- e. end with sensitive and demographic questions
- f. instrument length – brief 10-15 minutes
- g. evaluate instrument: focus groups, experts, cognitive interviews,
- h. pre-test

VI. Using and Constructing Item Scales

- a. scales designed to measure a construct
 - perceived control, academic hope, depression
- b. rooted in theoretical net & empirical findings
- c. apply measurement theory
- d. multiple items – subscale scores
 - item analysis – correlations in predicted direction
 - factor analysis – reduce items
 - internal consistency (Cronbach’s alpha)
 - stability - test-retest reliability

Validity

Definition: the degree to which an instrument or scale measures the construct under study

- criterion or empirical
 - predictive (empirical validity): measure predicts to a future status on an outcome or criterion variable
 - concurrent: correlate measure with criterion at the same point in time
- construct or theoretical
 - convergent validity: degree that different methods of measurement provides same or very similar results
 - discriminate validity: new measure does not correlate highly with measures of other constructs
 - investigate using multi-trait –multimethod matrix (Campbell & Fiske, 1959)