

Survey Research

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PSY 6217 – Research Design



Writing Questionnaire Items

- ☞ Open-ended items
- ☞ Partially open-ended items
- ☞ Closed (Restricted) items
 - ♦ Provide a choice for all potential responses
 - ♦ Response choice should not overlap
 - Wrong: AGE 5 - 10 10 - 15 15 - 20
 - Right: AGE 5 - 9 10 - 14 15 - 19
- ☞ Rating Scales
 - ♦ Likert-type scales
 - ♦ Rank order responses

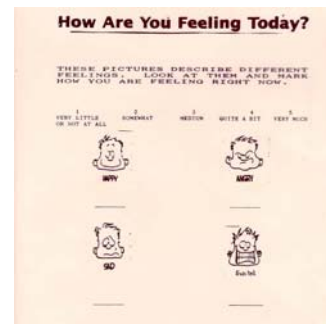
Likert-type Scales

Strongly Disagree ① ② ③ ④ ⑤ Strongly Agree

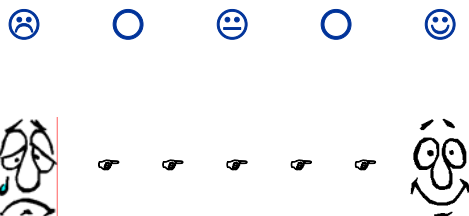
- Label the endpoints only
- Label endpoints and middle
- Label every point on the scale

① ② ③ ④ ⑤
SD D N A SA

Non-Verbal Variants of Likert-type Scales



Non-Verbal Variants of Likert-type Scales



Guidelines for Writing Questionnaire Items

- ☞ Keep the wording simple
 - ♦ Consider the language skills of respondents
 - ♦ Avoid abbreviations and jargon
 - ♦ Avoid tasks that are too demanding
- ☞ Avoid making assumptions about the respondent's knowledge
 - ♦ Do you agree with the mayor's philosophy of government?
- ☞ Questions about sensitive topics must be worded carefully – avoid biased wording

Guidelines for Writing Questionnaire Items

- ☞ Avoid ambiguous questions
 - ♦ *State questions precisely*
 - ♦ *Be as specific as needed to answer your question*
- ☞ Response options should be precise
 - ♦ *VAGUE: frequently, several, seldom, usually*
 - ♦ *PRECISE: once a week, once a month, twice a day*
- ☞ State questions in concrete terms
 - ♦ *ABSTRACT: Did you enjoy the book?*
 - ♦ *CONCRETE: Would you recommend the book to a friend?*

Guidelines for Writing Questionnaire Items

- ☞ Negative constructions are confusing and should be avoided
 - ♦ *POOR: He did not disagree with the suggestion*
 - ♦ *BETTER: He agreed with the suggestion*
- ☞ Avoid double-barreled questions
 - ♦ *Should adolescents be allowed to choose their own friends and drink on weekends?*
- ☞ Each question should ask only one thing
 - ♦ *Should adolescents be allowed to choose their own friends?*
 - ♦ *Should adolescents be allowed to drink on weekends?*

Guidelines for Writing Questionnaire Items

- ☞ Avoid leading questions
 - ♦ *Given that fact that installing scrubbers at utility plants could increase electric bills by 20%, do you believe the Clean Air Act should be strengthened, weakened, or left alone?*
- ☞ Avoid loaded questions (using emotionally-charged words)
 - ♦ *Do you believe the Federal government wastes money?*
- ☞ Use a neutral wording to avoid creating response biases

Guidelines for Writing Questionnaire Items

- ☞ Loading can occur in subtle ways
 - ♦ *Would you vote for Dr. John Smith?*
 - ♦ *Would you vote for John Smith?*

 - ♦ *How fast were the cars going when they touched each other?*
 - ♦ *How fast were the cars going when they collided?*
 - ♦ *How fast were the cars going when they smashed into each other?*

Ordering Items on a Questionnaire

- ☞ The first questions set the tone for later questions
- ☞ Best order might depend on mode of administration
 - ♦ *Paper and pencil: Begin with questions that capture the respondent's interest*
 - ♦ *Interviews: Begin with simple questions that give the respondent something easy to answer (a sort of "small talk" to establish rapport)*

Ordering Items on a Questionnaire

- ☞ Funnel Questions
 - ♦ *General questions*
 - ♦ *Specific questions*
- ☞ Filter Questions
 - ♦ *Shorten length of questionnaire by directing respondents to skip to another section based on their response*
 - ♦ *Do you own a dog?*
If no, skip to question 17; if yes, complete the following questions:

Administration

☞ Mail surveys

- ♦ *Non-response bias*
- ♦ *Provide incentives to respond*
- ♦ *Follow-up reminders and duplicate questionnaires*

☞ Internet surveys

- ♦ *Who has access to the internet (sampling bias)*
- ♦ *Control of the number of times an individual responds*
- ♦ *Are the respondents who they claim they are?*

☞ Telephone surveys

- ♦ *Answering machines, cell phones, unlisted numbers*

Administration

☞ Group Administration

- ♦ *Convenience of sampling many people at one time*
- ♦ *Will respondents take the questionnaire seriously?*
- ♦ *Potential loss of anonymity*
- ♦ *Potential for coerced participation*

☞ Face-to-face interviews

- ♦ *Potential to clarify misunderstandings*
- ♦ *Added effects of the social interaction between interviewer and respondent (experimenter effects)*

Reliability

☞ Test-retest reliability can be assessed for measures of stable attitudes

☞ Split-half reliability for single-administrations

- ♦ *Only suitable if questions can be randomly divided and still make sense as a measure*
- ♦ *KR-20 looks at the average of all possible split-half correlations for a given set of items*

Increasing Reliability

☞ Increase the number of items

- ♦ *More items provide a larger sample of responses*
- ♦ *Assumes all items are intended to measure the same thing*
- ♦ *Too many items can undermine motivation*

☞ Standardize procedures for administration

☞ Standardize scoring procedures

☞ Write questionnaire items carefully

Sampling Issues

☞ Representative Samples

- ♦ *Sampling error – distortions in sample due to random processes in sampling procedure*
- ♦ *Sampling bias – distortions in sample due to non-random processes*
 - *Systematically exclude some members*
 - *Systematically include some members*

Sampling Techniques

☞ Simple Random Sampling

- ♦ *With replacement*
- ♦ *Without replacement*

☞ Stratified Sampling

- ♦ *Divide population into well-defined strata*
- ♦ *Randomly sample within strata*
- ♦ *Size of each sample might depend on characteristics of the strata sampled*
 - *Larger n for more variable strata*
 - *Consideration of cost of sampling each individual*

Sampling Techniques

∞ Proportionate Sampling

- ♦ *Identify categories of individuals in population*
- ♦ *Match proportion of each category in the sample to its proportion in the population*

∞ Systematic Sampling

- ♦ *Sample every k th element*

∞ Cluster Sampling

- ♦ *Identify natural clusters in the population*
 - *Classrooms, blocks of a neighborhood, households, etc.*
- ♦ *Randomly select clusters*
- ♦ *Survey all members of the cluster*