



Introduction

- ◆ Writing questions for survey instruments
- ◆ Learn to ask questions effectively
- ◆ Write a valid and reliable survey instrument
- ◆ Resist the temptation to ask questions that *might* be of interest



Valid and Reliable instrument

- ◆ Well written instrument
 - Purposeful questions
 - Questions determined by objectives
 - Concrete questions
 - Complete sentences
- ◆ Review by experts
- ◆ Pilot with potential respondents

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3



Good Questions

- ◆ Address the survey's objectives
- ◆ Are concrete and specific
- ◆ Clearly address only one issue per question
- ◆ Use appropriate language and reading level for the respondents
- ◆ Do not contain words that promote bias
- ◆ Do not contain double negatives

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4



Purposeful Questions

- ◆ The respondent can identify the relationship between the question and the objective of the survey
- ◆ The connection between demographic questions and survey objectives may be missing
- ◆ Prefix the demographic question with a statement clarifying the connection

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5



Concrete questions

- ◆ Precise and unambiguous
- ◆ Less concrete: How much do you exercise?
- ◆ More concrete: In the past week how many days did you participate in an activity that made you breath hard for at least 30 minutes? More concrete

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6



Conventional Language

- ◆ Use complete sentences and proper grammar.
 - Race?
 - Which of the following categories best describes your ethnicity?
 - Caucasian
 - Native American/American Indian
 - ...

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7



Conventional language

- ◆ Avoid abbreviations
- ◆ Avoid slang and colloquial expressions
- ◆ Only use jargon and technical expressions with appropriate audiences

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8



Open vs. Closed Questions

◆ Open Questions

- Use when:
 - You don't know what types of answers to expect
 - Want the respondents view of the world rather than yours
- Answers must be cataloged and interpreted
- Difficulties
 - Responses difficult to compare and interpret
 - Not practical for large sample sizes

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9



Open vs. Closed Questions

◆ Closed questions

- Advantages
 - Easier to interpret
 - Better for statistical analysis
 - Good for large samples
 - Surveyor's expectations are more clear
 - Answers tend to be more reliable and consistent
- Disadvantages
 - Researcher must have understanding of most likely responses
 - Does not always allow respondent to express their interpretations/feelings

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10



Response Choices

- ◆ Type of data:
 - Nominal: purely categorical, mutually exclusive, collectively exhaustive
 - Ordinal: has an inherent order
 - Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree
 - Excellent, very good, good, fair, poor
 - Always, very often, fairly often, sometimes, almost never, never
 - Numerical

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11



Ordinal Measures

- ◆ Include a “do not know” if appropriate
- ◆ Include a neutral response if appropriate
- ◆ Balance all responses
- ◆ Use a 5- to 7-point numbered scale
- ◆ For socially undesirable behaviors put the negative end first.

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12



Measuring Attitudes

- ◆ Psychometrics
- ◆ Very complex entities, difficult to define and measure
- ◆ Consider using a published measure
 - Is it suitable for your respondents?
 - Does it truly ask what you need to know?
 - Get the owner's permission.

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13



Demographics

- ◆ Age, race/ethnicity, education, job, gender, marital status, geographic place of residence, size of family, and so on.
- ◆ Learn the characteristics of your target population.
- ◆ Important for describing sample.
- ◆ Important to help explore your findings.

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14



Demographics

- ◆ Base your response categories on the characteristics of your target population.
- ◆ Decide on an appropriate level of specificity.
- ◆ Ask for exact information in an open-ended format.
- ◆ Use current words and terms.
- ◆ If you want to compare to other studies, use the same categories.

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15



Validity

- ◆ Face Validity
 - Does the survey seem to ask the needed questions?
- ◆ Content Validity
 - Does the survey thoroughly and appropriately assess what it intends to?
- ◆ Criterion-Related Validity
 - Does your survey correlate with other criteria known to measure what you are measuring?
- ◆ Construct Validity
 - Does your survey behave consistent with other theoretically derived constructs

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16



Reliability

- ◆ Consistency across time
- ◆ Consistency within the survey
- ◆ Test-retest: stability
- ◆ Alternate-form: equivalence
- ◆ Internal consistency: homogeneity
- ◆ Inter- and Intra-rater reliability

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17



Context

- ◆ Know your respondents
 - Reading level
 - Language comprehension
 - Ask only questions they could be expected to know answers to!
 - Facing unanswerable questions is frustrating!
- ◆ Consider the time constraint
 - How much time will the survey take?
- ◆ Standardize the response format
- ◆ Consider the social, cultural and economic context.

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18



Lastly

- ◆ Always allow plenty of time upfront for survey development!
- ◆ Always pilot test.
- ◆ Always have others review what you have written.
- ◆ Always base your survey on your survey objectives.
- ◆ Always work with the Human Subjects Committee!

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19



Thank You for Coming!

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20



Qualitative Surveys

- ◆ “Collect information on the meanings that people attach to their experiences and on the ways they express themselves.”
- ◆ Necessitate small samples, often not generalizable.
- ◆ Provide depth and uniqueness rather than breadth and representation.
- ◆ Often requires content analysis.

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21