

Some Thoughts on Writing Questions

Introductory Note: My experience with trying to teach the writing of questions has been that the big picture of what we are trying to achieve with survey questions often gets missed. Sometimes people get lost in one small issue (e.g. Which is more valid five or seven point scales?) and may miss the bigger question of whether they should even be using such scales, and what the wording should be. The biggest difficulty I have faced in writing questions is being able to go back and forth from the information in front of me that some things should be fixed, and to what aspect of knowledge needs to be drawn upon to design a fix. One of the things that I have learned to do over my career is not to think about everything at once, but try to think in terms of layers of concern. Today's presentation tries to identify some of the multiple layers one needs to think about in a practical way. Fowler and Conzeza provide good background as well as examples and my book also provides background for where I hope to do today.

- A. Our objective is to produce an inquiry that will allow us to produce the distribution of a characteristic in the population.

Think about constructing a "variable." Otherwise, why ask the question?

e.g., What percent of the U.S. adult population is unemployed?

- B. Error concerns: mostly measurement, but also non-response.

e.g., "Have you every shoplifted something?" vs. "Have you ever taken anything from a store without paying for it?"

- C. Questions I try to ask myself when writing survey questions and working with clients who ask me for help with their proposed questions. (For this to make sense it helps to think about trying to help someone else with their questions. I use this as a mental starting point to understand some of the general constraints that need to be dealt with.

1. Does the question you have proposed require an answer?
2. To what extent do survey recipients already have an accurate ready-made answer for the question they are being asked to report?
3. Can people accurately recall and report past behaviors?
4. Is the respondent willing to reveal the requested information?
5. Will the respondent feel motivated to answer each question?
6. Is survey information being collected by more than one mode?
7. Is changing a question acceptable to the survey sponsor?

D. I find it useful to think of questions as asking for one of four types of information, but over the years have used it somewhat less than in the past.

1. Attitudes—What one wants or prefers.
2. Beliefs—What one thinks to be true.
3. Behavior—What one does or has done.
4. Attributes—What one is.

Generally, answers to attitude and belief questions, especially abstract ones, exhibit more unintentional measurement error than do answers to attribute and behavior questions. But, recalling behavior is sometimes tricky—we'll talk about this later.

E. Fundamentally, there are four types of question structures.

1. *Open-ended*: No answer choices are offered. Frequently, it is difficult to create variables because of the vague or imprecise stimulus.
2. *Close-ended with ordered response categories (ordinal scale)*: Answer choices are offered and form a continuum which a respondent must place her/himself on.
3. *Close-ended with unordered response categories (nominal scale)*: Answer choices are offered, but do not form a continuum of choices.
4. *Partially close-ended*: Respondents have answer choices but, in addition, can offer their own open-ended answer (usually associated with close-ended unordered).

Are there other types you can think of?

F. Will people provide honest answers?

1. Not necessarily and sometimes respondents aren't really aware that their answers aren't entirely truthful. There are tools for decreasing likelihood of untruthful answers—context, embedding, and other ideas associated with how conversations occur. Sudman and Bradburn have written good books on this topic.
2. There are limitations to what can be done to achieve truthfulness.

G. Layers of complexity: the question building process.

1. *First level of complexity*. Thinking about wording in two locations—the query and the response choices.
2. *Second Level of Complexity*. Ordering questions and response categories.

3. *Third level of Complexity.* More problems and human tendencies.

H. First Level Problem—People don't draw information from just the query.

- 1) Words in query
- 2) Words in the categories
- 3) Number of categories
- 4) Position of categories
- 5) An experimental examples: estimates of time spent by students studying, on a computer and watching television.

I. Meaning from words (see text for elaboration on each).

1. Vaguely worded questions and responses.
2. Abbreviations or jargon.
3. Too much precision.
4. Bias from slanted introduction.
5. Bias from unequal comparison.
6. Bias from unbalanced response choices.
7. Bias from tone of the question.
8. Objection to providing information.
9. Objectionable statements.
10. Questions that are too difficult.
11. Doubled-barreled questions.
12. Answers are not mutually exclusive.
13. Assumes too much knowledge.
14. Inaccurate statements.
15. Inappropriate time references.
16. Others.....the list goes on.

J.. Second level wording problems—ordering questions and categories.

1. A questionnaire is a conversation—the meaning depends upon what has been said before, and mutual understandings. (cognitive concerns). Grice argues that four principles structure the exchange of information between people in a conversation. (Norbert Schwarz provides elaboration).
 - a. speakers should not say things they believe to be false (truthful).
 - b. speakers should make comments that are relevant to the purposes of the conversation (relevant).
 - c. speakers should make their contributions as informative as possible (informative).
 - d. speakers should express themselves as clear as possible (clarity)
 - e. See Thinking about answers by Sudman, Bradburn and Schwarz, Jossey-Bass, 1996).
2. Research results on multiple topics that illustrate these concepts.
 - a. Addition/subtraction effects (Schuman and Presser, 1981)
abortion questions--subtractions
how is life questions—carryover