Survey Design Strategies

Designing a survey can feel like a balancing act. The data must have depth and breadth but the questions need to hold the attention of the participant. By putting a little extra thought into survey design, you can eliminate unnecessary or confusing questions and greatly increase the quality of your data. Here are some tips for creating an efficient survey:

Consider the intention of your data.

Before beginning, consider the end goal of the data collection. What purpose is it meant to serve? What are you trying to find out? How will each piece of data inform the project's next steps? What will be convincing to likely critics? Settle on the intention before beginning the design process.

Fit your survey to your audience.

As you start developing questions, always keep your target population in mind. How will cultural factors affect their ability to understand the survey? What is their literacy level? What language are they most comfortable with? Does this topic interest them?

Think about how much time your participants will want to spend on the survey and choose your question types accordingly. Closed-ended questions (yes/no, multiple choice) take less time but may not entirely capture an individual's full response. Open ended questions (*"If you checked yes, please explain"*) may take longer but can give you a more in-depth understanding of the issue.

Keep in mind participants' "cognitive energy." Respondents will only devote a limited amount of mental effort to your survey, so it's important to balance survey length with complexity of questions.

Give it a nice flow.

In order to motivate participants to take your survey you need to establish a compelling reason to participate. It is helpful to introduce the survey topic and provide respondents with a context for the questions. Start off with interesting, easy questions and build up to more difficult or sensitive ones.

Your survey questions should follow a logical order, like a conversation, not jump around without transitions. The sequencing of the questions should be very clear to the respondent. If necessary use visuals such as ➲ or **Start** to indicate where to go next.
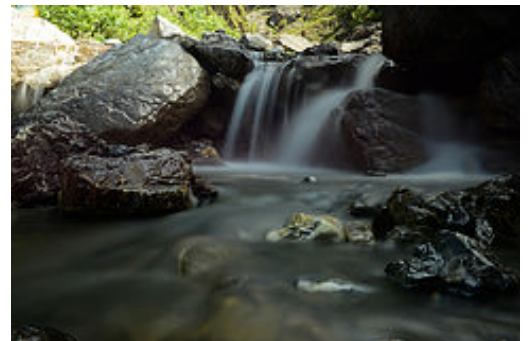
Keep your questions simple and straightforward.

Say what you mean in the clearest way possible. Choose simple rather than specialized terms (*"people who live in apartments or condominiums"* rather than *"occupants of multi-unit housing"*). Use complete sentences when asking a question: *"What is your gender? ☐ Male ☐ Female"* rather than *"Check one: ☐ Male ☐ Female."*

Avoid questions where two things are being asked at the same time (*"How often and where do you purchase cigarettes in your community?"*). Don't make respondents answer "yes" in order to mean "no" (*"Do you agree that cigarette smokers should not be allowed within 20 feet of public doorways?"*). Use time frames within memory and avoid unnecessary calculations (*"In the last year how many cigarettes did you smoke on average per month?"*).

Make response choices easy to choose from.

When asking questions about time frames, be specific. Terms like *"often"* or *"rarely"* mean different things to different people. Instead specify *"2-3 times per month"* or *"every day."*

Attitudinal response options should equally cover both ends of the spectrum. *"Strongly agree, somewhat agree, not agree"* is weighted more towards the *agree* end of the spectrum. *"Strongly agree, somewhat agree, somewhat disagree, strongly disagree"* is balanced.

Make sure your answers are mutually exclusive and numbers or concepts don't overlap. An 18 year old would have a tough time knowing how to answer the question *"How old are you?"* if the response choices were: ☐ *15-18 yrs*   ☐ *18-30 yrs*   ☐ *30-50 yrs*   ☐ *50+ yrs*

Be careful of using "mark all that apply." This is okay for factual questions (*"Which cigarette brands have you ever purchased?"*) but for attitudes/beliefs (*"Which of these areas should be designated "non-smoking"*) respondents can get burned out by contemplating their opinions on each item, especially if the list is long. This can lead to selection bias when the first few choices get more attention than items that come later down the list.

Field-test your survey.

The true test of the effectiveness of your survey will be in the real world. Work with collaborators from your target population to get feedback on your survey's design and usability.

For more in-depth guidance on this topic, check out the materials and recordings from our 2011 regional training on Designing Effective Surveys: http://programeval.ucdavis.edu/recordings.php

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