

Survey Design Considerations

Recommendations for Writing Effective Questionnaires

Know Your Audience

Many surveys are designed such that the length, content, or wording is not matched to the intended audience. A rule of thumb for all communications (and surveys are two-way communications after all) is: Audience + Purpose = Design. Determine, with as much confidence as possible, your audience and the purpose of your survey. Survey design, which is comprised of questions, invitation format and interactivity, should be optimized for the audience and should focus on the defined purpose of your research.

Respondents prefer shorter surveys to longer ones.

- Keep questions clear and concise. Wordy or complex questions can confuse or turn off respondents.
- If the content is controversial or sensitive, be sure to check your questions and responses to ensure the respondents can answer them as comfortably as possible. This may require that the survey be confidential (identifying information is kept secret by the surveyor and never revealed to any other parties) or anonymous (identifying information is not collected—respondents can only be matched to a survey by a random number).
- Avoid use of technical wording, including jargon and acronyms. Acronyms should be expanded unless the target audience commonly knows them.

Put First Things First

Many surveys put demographic questions at the beginning. The purpose of the survey is to have the respondent answer the core questions—address the important issues—not to answer boring demographic questions or fill in background information.

Survey design research demonstrates that respondents will be more likely to complete long surveys and answer honestly if they can begin by answering the core material rather than being distracted by questions that are not pertinent (to the reason the survey is being conducted).

Put demographic questions at the end. Alternately, only ask for the minimum amount of absolutely essential information at the beginning (information that would uniquely identify the respondent, such as their name) and put the remaining demographic questions at the end.

Pilot Test Whenever Possible

Surveys often have problems with unclear wording, confusing design, questions that are difficult to understand, and typos that could easily be corrected by a small pilot test.

Pilot test your survey before releasing it. Even the feedback of one other person can be valuable to help clarify and improve the survey. If you can, try to get a handful of respondents to pilot test. A greater number (30 or more) of respondents makes it possible to conduct statistical analyses on the reliability of questions if it is important to do so.

Issues for Designing Questions

Double-Barreled Questions

Questions that ask for opinions about two different things will often cause confusion among respondents and produce result that cannot be interpreted.

For example, if a respondent answers the question *“Do you believe that air bags are unsafe and expensive?”* with a “no”, you may conclude that he believes that air bags are safe and affordable when he really thinks air bags are safe but expensive.

You can easily avoid this issue by breaking the question into two different questions: *“Do you believe that air bags are unsafe?”* and *“Do you believe that air bags are expensive?”*

Biased Questions

Another form of question that can easily lead to misinterpretation of results is a “biased” questions. A question is biased if the wording is such that it leads the respondent to a particular conclusion.

For example, the question *“Given the failure of welfare in the United States, do you feel welfare programs should be eliminated?”* will most certainly result in agreement. After all, who would want to keep a program around that has already failed?

By leading the question with the phrase “Given the failure of...”, you will influence results. A better way to phrase the question is *“Do you feel welfare programs should be eliminated?”*

Halo Effect

Watch out for questions that link a position with a particular person or group. The respondent’s attitude about the person or group may influence their attitude about the position.

Take the question “*Do you agree with President Bush that tobacco firms are waging war on our children?*” for example. If the a respondent is against President Bush, he might answers “no” to the question because of the phrase “do you agree with President Bush” even though he believes that tobacco firms are waging war on our children.

To improve this question, eliminate the link to the specific person or group. You can do this by attributing positions to an unnamed group (e.g. “some people believe... while other people believe... what do you think?”) or eliminate the position altogether, for example, “*Do you believe that tobacco firms are waging war on our children?*”

Loaded Questions

Avoid questions that presents only one side of an issue. For example, the question “*Do you support cutting the defense budget in order to reduce the federal deficit?*” does not give the respondent enough opportunity to state his opinion. If cutting the defense budget is the only option, then maybe this question has merit. However, since there are other alternatives, a better way to ask the question would be “*Some people support cutting the defense budget in order to reduce the federal deficit. Other people believe defense spending is important, and suggest reducing the federal deficit by reducing wasteful spending. What do you think?*”.

Avoid loaded questions by presenting both sides of the issue.

Time and Distance

When dealing with time and distance, special consideration must be given to ensure accuracy of responses to your question. Respondents can more accurately estimate actual time than percentages of time. That is, it is better to ask for the total time spent and then the time spent on a specific activity, and compute the percentage than to ask respondents to estimate the percent of time they spend on a specific activity.

For example, it is better to ask how long it takes to drive to the closest hospital (as a closed question with responses ideally based on information from focus groups or open-ended questions collected previously) rather than how far away the closest hospital is.

Issues for Designing Responses

Neutral Bias

When presenting a scale of responses like Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, responses will tend to be biased toward the center since most people use a neutral

response as a dumping ground when they would prefer not to have to choose, don't care, or have no opinion.

Using a 6-point scale in place of the traditional 5-point will improve the validity of the question and reduce the neutral bias that occurs with an answer in the middle. By forcing the respondent to take a side (even if is to only "tend" to agree or disagree), the results will be more indicative of the polarized opinions around the issue.

Overlapping Responses

Another common mistake is to ask a question and then provide responses that are not mutually exclusive. For example, if you asked: *How much time do you spend watching TV on a typical day?*

- (a) 1 hour or less
- (b) 1 - 3 hours
- (c) 3 or more hours

And the respondent wanted to answer **1 hour**, which option would he choose? Both option **a** and **b** are valid responses for the answer 1 hour. Because of the overlapping responses, you would not be able to differentiate between those that answered with option a and those that answered with option b.

Before conducting your survey, carefully review your response options and make sure that each one is mutually exclusive. Otherwise your results for the question will not be accurate.

Agreement Bias

Survey research indicates that for opinion or attitudinal questions (rather than factual or knowledge-based questions), respondents are generally more likely to agree more often than they disagree. This tendency to agree is called the acquiescence response factor, and has been documented extensively in survey design research as a problem associated with opinion or attitudinal questions.

Use a forced-choice response rather than "yes/no" or "agree/disagree" formats. A forced-choice response rephrases the key point of the question as both positive (agree) and negative (disagree) statements.

Survey design research demonstrates that forced-choice responses deliver more valid results than "yes/no" or "agree/disagree" formats. This is because they minimize the effect of the acquiescence response factor, thereby significantly improving the validity and reliability of the question.

Original:

- Nuclear proliferation is a threat to U.S. national security.
- (a) Agree
 - (b) Disagree

Improved:

- Nuclear proliferation is a threat to U.S. national security.
- (a) Proliferation is a threat
 - (b) Proliferation is not a threat

Additional Resources

To learn more about creating and conducting online survey research, visit WebSurveyor's Learn More section for additional white papers, best practices articles, and links to other informative web sites. Several valuable books, available through our bookstore include:

AMA Handbook for Customer Satisfaction: Complete Guide to Research, Planning, and Implementation, by Alan F. Dutka

How to Conduct your own Survey, by Priscilla Salant and Don A. Dillman

The Survey Research Handbook: Guidelines and Strategies for Conducting a Survey, by Pamela L. Alreck and Robert B. Settle