

Tips for Developing and Using Questionnaires

Questionnaires are a means to systematically gather data about a particular topic of inquiry from large numbers of respondents. Carefully developed questions can elicit either qualitative or quantitative information to answer your inquiry questions.

Positioning your questionnaire

Clearly articulate what information you want to obtain through the questionnaire, who you expect to respond to the questionnaire, and how this information from these individuals will help to answer your inquiry question. Consider whether this is the best way to gather information from this audience in the time frame of your inquiry.

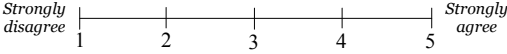
Developing your questions

Questionnaires do not allow for interaction with the respondent, so it is essential that your questions be clear and designed to obtain the needed information. Be clear on what information is needed to answer your inquiry question and refrain from developing a questionnaire that is a “fishing expedition” for information you “might” need. The table below presents 10 guidelines for writing effective questions¹ for a questionnaire. Each guideline is accompanied by a weak and strong example question and comments about the differences in the examples.

| Guideline | Question Choices (Examples) | Comments |
|---|--|--|
| 1. Write simple sentences. | Weak Choice: <i>In your estimation, what are the strong points of and drawbacks to the engineering program currently offered at the college, as opposed to the proposed program for next year?</i> Strong Choice: <i>a. What are the strengths of the current engineering program?</i> <i>b. What are the weaknesses of the current engineering program?</i> | The strong choice uses simple language and separates the question into two parts to promote clearer responses. |
| 2. Use vocabulary familiar to the respondents. Avoid ambiguous words or phrases. Use a description, even if | Weak Choice: <i>(For students): Do you feel that cognitive instructional programs are balanced properly with the affective aspects of the college?</i> | “Cognitive” and “affective” are technical terms that often mean different things to different people. They usually mean very little to |

¹ This information is adapted from: Cox, J. (1996). *Your opinion, please! How to build the best questionnaires in the field of education*. Thousand Oaks, CA. Corwin.

| Guideline | Question Choices (Examples) | Comments |
|--|--|---|
| lengthier, rather than a phrase that is open to multiple interpretations. | Strong Choice: <i>(For students): Do you feel that there is a proper balance between the academic and social aspects of your college program?</i> | students. Although it does not exactly mean the same as the original, the rephrased example is a more appropriate question for students. |
| 3. Consider the respondents' frame of reference. Avoid asking for respondents' opinions on a subject they are unlikely to know about. | Weak Choice: <i>(For students): How many hours of professional development should faculty have to keep current in their discipline?</i> Strong Choice: <i>(For students) Are you satisfied with how up-to-date the information is that you receive in your technology class?</i> | Students cannot be expected to know the amount of time it takes for faculty to stay current in their discipline, but they are likely to have ideas about the currency of what they are learning. |
| 4. Avoid words or phrases that tend to attract or repel certain responses and distract from the core topic of the questions. | Weak Choice: <i>Do you believe that federal politicians should have a voice in determining the college curriculum?</i> Strong Choice: <i>Do you believe that elected officials at the federal level should have a voice in determining the college curriculum?</i> | The term "federal politicians" can elicit an emotional response. The rephrased question is likely to provoke a more thoughtful answer. |
| 5. Avoid words such as "every," "all," "always," "never," and other absolutes in the stem of a question (the stem includes everything but the possible responses) and as endpoints on a scale. | Weak Choice: <i>(On a "strongly agree" to strongly disagree" scale): All students should be encouraged to participate in peer study groups.</i> Strong Choice: <i>(On a "strongly agree" to strongly disagree" scale): Students should be encouraged to participate in peer study groups.</i> | A respondent may strongly favor the action, but feel may be instances when it would not be a good idea. The word "all" forces this person to disagree. |
| 6. Place a qualifier in the stem of the item or the response, but not both. | Weak Choice: <i>(On a "strongly agree" to strongly disagree" scale): The instructor is usually available during office hours.</i> Strong Choice: <i>(On a "strongly agree" to strongly disagree" scale): The instructor is available during office hours.</i> | Both "usually" and "strongly are qualifiers." You may strongly agree that the instructor is available or agree that he or she is usually available. It is not very meaningful to strongly agree that the instructor is usually available. |
| 7. Avoid compound questions or phrases since they do not allow for different opinions on each part. | Weak Choice: <i>Were the chemistry and math students well prepared?</i> Strong Choice: <i>Were he chemistry students well prepared? Were the math students well prepared?</i> | A respondent cannot give different opinions to the different parts of the question. |
| 8. Be sure the questionnaire items | Weak Choice: <i>(On a "strongly agree" to "strongly</i> | The "strongly agree" to "strongly disagree" scale is |

| Guideline | Question Choices (Examples) | Comments |
|--|---|---|
| match the scale. | <p><i>disagree” scale): I have implemented the new questioning techniques from the workshop in my classroom.</i></p> <p>Strong Choice: <i>(On a “fully implemented” to “not implemented” scale): I have implemented the new questioning techniques from the workshop in my classroom.</i></p> | an intensity scale, yet the item calls for a yes/no answer. (When assessing usefulness, an intensity scale would be appropriate.) Since partial implementation is possible; a yes/no response would not be appropriate. A scale calling for degrees of implementation, such as “fully implemented” to “not implemented” is fitting. |
| 9. Make it okay to not give the socially desirable response to sensitive topics. | <p>Weak Choice: <i>Do you use the procedures prescribed for curriculum revision?</i></p> <p>Strong Choice: <i>Because of limited time or other reasons, you have probably used some of the curriculum revision actions and not others. Check those you have used.</i></p> | Introduce the item in a way that makes “no” an okay response. |
| 10. Use equal interval alternatives. | <p>Weak Choice: <i>Strongly disagree Mostly disagree Mostly agree Strongly agree</i></p> <p>Strong Choice: <i>Strongly disagree Disagree Slightly disagree Slightly agree Agree Strongly agree</i></p> <p>Or</p>  | The distance between “mostly agree” and “mostly disagree” is greater than the distance between “mostly agree” and “strongly agree.” The other examples are separated by approximately equal intervals. The second example shows that a numerical identification can be sufficient. |

After writing your questions, review each question in light of the above criteria and ensure that each question meets the criteria.

Checking alignment the questionnaire and inquiry question

Align your questionnaire items with your inquiry question so that you obtain the needed information and the questionnaire is no longer than necessary. An unnecessarily long questionnaire can result in a low rate of return.

One way to check for alignment is to create a table with the questionnaire items as row headings and the inquiry topics as column headings. For example, the CLIP inquiry related to improvement in student performance in Science, Technology, Engineering, and Math (STEM) courses and participation in study groups might need to know about students’ experiences in study groups conducted by instructors and peer study groups, and students’ course performance. Those topics plus demographic information are listed

as the column headings in the following table. For each questionnaire question, check which topics are addressed. In the example below, question number five does not align with any of the topics and can be eliminated. If the alignment check reveals that some topic has only one or two questions addressing it, additional questions may be needed related to that topic.

| | Instructor-led study groups | Informal peer study groups | Performance in STEM | Respondent Demographics |
|---|------------------------------------|-----------------------------------|----------------------------|--------------------------------|
| 1 | | | | X |
| 2 | X | | | |
| 3 | X | | | |
| 4 | | | X | |
| 5 | | | | |
| 6 | | X | | |

Figure 2. Sample Alignment Table

Writing questionnaire directions

Create a professional-looking document with clear, specific, complete instructions to help ensure that respondents can complete the questionnaire easily and accurately, thereby increasing the chances of having the questionnaire returned and completed appropriately. Consider the following guidelines when writing the directions.

1. *Keep them simple.* Be clear, thorough and use simple language.
2. *Be specific.* Do not assume that the respondents understand how to respond. “Complete the following” is often not sufficient.
3. *Emphasize.* Emphasize important points in the directions through underlining, boldface, italics, and other techniques.
4. *Write directions for each question format.* Clearly label questionnaire sections (e.g., Part I), so the respondent can easily find any section mentioned in the directions. At the beginning of a new section, state the directions for that section. If directions are given in one place for multiple question formats, label the questionnaire section so you can reference the sections in the directions.
5. *Tell the respondent what to do with the completed form.* Thank the respondent and tell the respondent how to return the questionnaire, whether electronically or by

mail. If the questionnaire has been mailed, repeat the address given on the envelope in case the envelope is lost.

6. *Encourage accurate responses.* Promising anonymity encourages accurate and honest responses rather than socially or politically correct responses. Simply reminding people of the tendency to give socially acceptable rather than carefully thinking through their responses also helps.

Formatting the questionnaire

Typically, questions with similar types of responses are placed together, but sometimes this does not work. For example, such organization may require the respondents to jump from one topic to another in their thinking. In such cases divide the questionnaire into sections by topic. Then organize the questions within sections by response type. Provide instructions for each type of response immediately preceding the items.

Administering the questionnaire

A major decision in administering your questionnaire is how you will make it available to respondents. Increasingly the most common way is to put it on the Internet and then send respondents the URL to access it. Check with the appropriate people at your college about this option. You will need to be familiar with the format to use to prepare the questionnaire and need to know how the data will be summarized for you.

Other options are to send a questionnaire as an email attachment or give it directly to respondents as a hard copy such as in a classroom setting. Mailing it is also an option.

Inform your respondents about the questionnaire prior to sending it. This can be done by email, phone, or mail as appropriate to your group of respondents. Explain succinctly the purpose and importance of your inquiry and why their opinions are needed and important, taking care not to bias their response by telling them what you hope the outcome of the inquiry will be. Indicate approximately how long it will take to complete the questionnaire and when they can expect to receive it.

When sending the questionnaire or making it accessible electronically, include an introductory cover letter or email. Include the same information that was in your earlier notification. In addition, state how they will be informed of the results, how their privacy will be protected, and the date by which the questionnaire needs to be returned. The questionnaire can be sent by mail or electronically. If you are mailing the questionnaire, include a stamped, self-addressed envelope for the return.

Shortly before the questionnaire is due, send a friendly email or mail reminder to non-respondents. Ask if they received the questionnaire and offer to send another copy if it was not received or was misplaced. Set a receipt date by which you can still include their response in your study.

See *Tips for Analyzing Quantitative Data* and *Tips for Analyzing Qualitative Data* in Module 5 for ideas for organizing your questionnaire data for analysis.

Resources for developing and administering questionnaires

Cox, J. (1996). *Your opinion, please! How to build the best questionnaires in the field of education*. Thousand Oaks, CA: Corwin.

Fink, A. (ed.) (2003). *The survey kit*. Thousand Oaks, CA: Sage.

This resource has 10 small booklets on topics including how to ask survey questions, analyze surveys and report on surveys. It covers both in-person and telephone surveys.

National Science Foundation's Online Evaluation Resource Library. This resource provides information on developing questionnaires, interviews, and observation protocols, and sample instruments. <http://oerl.sri.com/>