

# Principles for Adequate Questionnaire Design

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# Consequences of Poor Questionnaire Design

- Lower response rates
- Question skipping
- Question misunderstanding



# Goals of Good Questionnaire Design

- Make the questionnaire look important
- Make the questionnaire look easy to respond
- Motivate the individual to respond all the questions
- Make the intentional question skipping patterns clear
- Make the understanding of each question precise



# Steps of Formatting a Questionnaire

1. Choose binding style
2. Choose question order
3. Format individual questions
4. Design front cover
5. Design back cover



# Guidelines to Choose the First Question

- It should apply to everyone.
- It should be easy to respond.
- It should be interesting to the respondent.
- It should be strongly related to the general objective of the survey specified in the cover letter.

*Special case: The first question is designed to screen for eligibility.*



# Should this be the first question of the survey?

**What is your gender?**

- Male
- Female

Why?



# Principles for ordering questions

- Group questions about the same topic together.
- Group questions with the same format and response scale together.
- Order questions in a logical way (time sequence, cause -> consequence, natural order of choices, global -> details )
- Ask questions that are more interesting earlier in the questionnaire.
- Abstract questions should not be placed among the first questions of the survey.
- Ask threatening questions towards the end of the questionnaire.

# Within-question navigation

- Use dark print for questions and light print for answer choices

**22. What is the highest degree that you have obtained?**

Bachelor's ⇒ PROCEED TO QUESTION 23.

Master's

Doctorate



# Within-question navigation

- List answer categories vertically

**39. How familiar are you with the standards of the National Science Education Standards (NSES)?**

- Very familiar
- Somewhat
- Not much
- Not at all

**39. How familiar are you with the standards of the National Science Education Standards (NSES)?**

Very familiar  Somewhat  Not much  Not at all

- Exception: Matrix questions

44. Please check (✓) the extent to which each of following barriers may influence your decision about pursuing a master's degree.

	This is a big problem ▼	This may be a problem ▼	This is not a problem at all ▼
I wouldn't have time available to take classes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I wouldn't have money to pay tuition and other educational expenses .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't see how my career could benefit from a master's degree .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to do it on a full time basis, but cannot afford to leave my job .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would have too much difficulty with the courses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm near retirement and don't think this is necessary for me .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I live too far from a university and having to drive long distances is too cumbersome for me ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I wouldn't have the support I need from my family (e.g., wife, husband, children) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't want to be a student anymore.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Within-question navigation

- Place answer spaces consistently to either left or right of category labels

**25. How many science classes did you take in college that dealt strictly with science content (e.g., Microbiology, Physics, Astronomy, Geology, Chemistry)?**

Number of classes \_\_\_\_\_

**26. How many classes did you take in college that emphasized the teaching of science?**

\_\_\_\_\_ Number of classes

# Within-question navigation

- Words that introduce important details should be highlighted, but sparingly

Good: **Please check ✓ the extent to which each of the following barriers has made teaching bilingual students who are not LEP more difficult for you:**

Poor: **Please check ✓ the extent to which each of the following barriers has made teaching bilingual students who are not LEP more difficult for you:**

# Instructions to skip questions

- Skip instructions should be emphasized consistently by major visual changes.

8. **Have you ever taken a graduate science course?**

- Yes ⇒ In what year was your last graduate science course? \_\_\_\_\_
- No ⇒ **SKIP TO QUESTION 10.**



# Guidelines to design the front cover

- It should make the survey memorable:
  - Use colors
  - Use simple pictures, but be careful
  - Don't exaggerate on the details
- It should make the survey look important:
  - Emphasize the title, which should be short, simple, and communicate some of the relevance of the survey to the respondent
  - Identify the sponsors of the survey
  - Provide the contact information of the sponsor

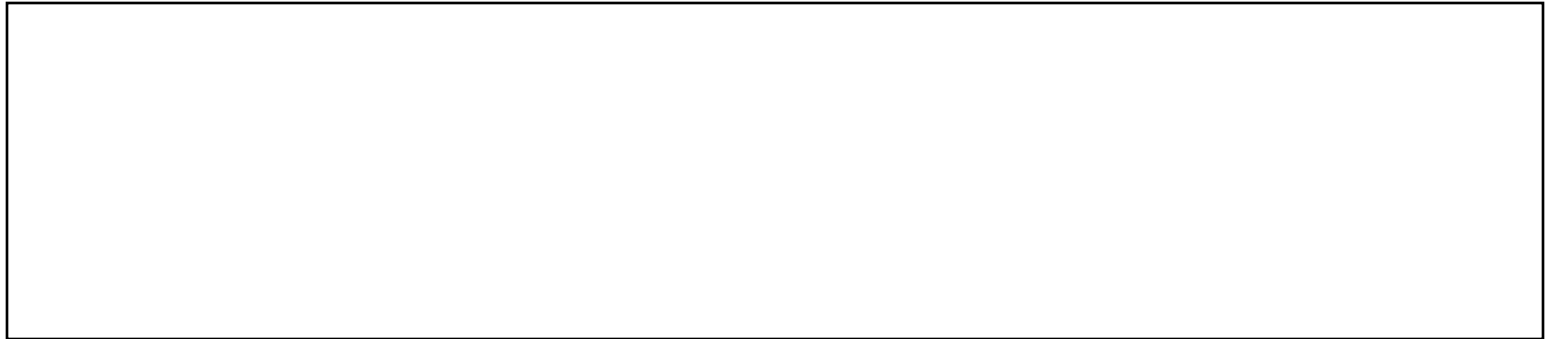


# Guidelines to design the back cover

- It should be immediately discernible from the front cover
- It should invite for additional comments and provide plenty of space for it
- It should contain a thank you to the respondent
- It should provide the name and address of the survey sponsor

# Example of back cover

Thank you for taking the time to complete this questionnaire. Your assistance in providing information is very much appreciated. If there is anything else you would like to tell us about science teaching, your school, or any item on this survey, please do so in the space provided below.



*Please return your completed questionnaire in the enclosed envelope to:*

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