

ELEVENTH EDITION

EXPLORING
Marketing Research



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Chapter 11

Questionnaire Design

LEARNING OUTCOMES

After studying this chapter, you should

1. Know the key decisions in questionnaire design
2. Choose between open-ended and fixed-alternative questions
3. Avoid common mistakes in writing questionnaire items
4. Minimize problems with order bias
5. Understand principles of survey flow
6. Use the latest survey technology to reduce respondent error
7. Appreciate the importance of pretesting survey instruments

Introduction

- The questionnaire is the primary tool for building responses to research questions
- Questionnaire design is one of the most critical stages in the survey research process
- Ask a bad question and you get bad results

Basic Considerations in Questionnaire Design

- These decisions must be made
 - What should be asked?
 - How should questions be phrased?
 - In what sequence should the questions be arranged?
 - What questionnaire layout will best serve the research objectives?
 - How can the questionnaire encourage complete responses?
 - How should the questionnaire be pretested and then revised?

What Should Be Asked?

- The specific questions to be asked will be a function of the previous decisions
- The later stages of the research process will have an important impact on the questionnaire wording
- When designing the questionnaire, the researcher must also be thinking about the types of statistical analyses that will be conducted

Questionnaire Relevancy

- A questionnaire is relevant to the extent that all information collected addresses a research question that will help the decision maker address the current marketing problem
- The researcher should be specific about data needs and have a rationale for each item
- Irrelevant questions make the survey needlessly long
- When planning the questionnaire design, researchers must think about possible omissions

Questionnaire Accuracy

- Accuracy means that the information is reliable and valid
- One should use simple, understandable, unbiased, unambiguous, and nonirritating words
 - However, no step-by-step procedure can be generalized
- Respondents tend to be most cooperative when the subject of the research is interesting

Questionnaire Accuracy (cont'd.)

- If questions are not lengthy, difficult to answer, or ego threatening, there is a high probability of obtaining unbiased answers
- Question wording and sequence substantially influence accuracy

Question Phrasing: Open- or Closed-Ended Statements?

- Open-ended response versus fixed-alternative questions
 - Open-ended response questions pose some problem or topic and ask respondents to answer in their own words
 - Fixed-alternative questions (a.k.a., closed questions) give respondents specific limited-alternative responses and ask them to choose the one closest to their own viewpoint

Using Open-Ended Response Questions

- Most beneficial when the researcher is conducting exploratory research
 - By gaining free and uninhibited responses, the researcher may find some unanticipated reaction toward the project
- May also be useful at the beginning of an interview as they allow the respondent to warm up to the questioning process

Using Open-Ended Response Questions (cont'd.)

- The cost of open-ended response questions is substantially higher
- Interviewer bias may influence the answer
- Articulate individuals tend to give longer answers and such respondents often are better educated and from higher income groups
 - May not be representative of the entire population and provide a disproportionate share of these responses

Fixed-Alternative Questions

- Require less interviewer skill, take less time, and are easier for the respondent to answer
- Answers to closed questions are classified into standardized groupings
- If a researcher is unaware of the potential responses to a question, fixed-alternative questions cannot be used
 - If the researcher assumes the responses and is wrong, he or she will have no way of knowing the extent to which the assumption was incorrect

Fixed-Alternative Questions (cont'd.)

- Unanticipated alternatives emerge when respondents believe that closed answers do not adequately reflect their feelings
 - May check off obvious alternatives if they do not see the choice they would prefer
 - May tempt them to check an answer that is more prestigious or socially acceptable than the true answer
- Most questionnaires mix open-ended and closed questions, providing a change of pace that can eliminate respondent boredom and fatigue

Types of Fixed-Alternative Questions

- Simple-dichotomy (dichotomous-alternative) questions present two alternatives
- Multiple-choice questions allow a choice from multiple alternatives
- The frequency-determination question asks for an answer about the general frequency of occurrence
- The checklist question allows respondents to provide multiple answers to a single question

Types of Fixed-Alternative Questions: Guidelines

- There should be no overlap among categories in the checklist—each alternative should be mutually exclusive
- The researcher should strive to ensure that there are sufficient response choices to include almost all possible answers
- Including a category lower than the answers you expect often helps to negate the potential bias caused by respondents avoiding an extreme category

Phrasing Questions for Self-Administered, Telephone, and Personal Interview Surveys

- The means of data collection—telephone interview, personal interview, self-administered questionnaire—will influence the question format and question phrasing
- Questions for mail, Internet, and telephone surveys must be less complex than those used in personal interviews
- Questionnaires for telephone and personal interviews should be written in a conversational style

EXHIBIT 11.1 Best Question Formats Vary by the Interview Medium

Format for self-administered questionnaire

How satisfied are you with your mobile phone service provider?

- Very Dissatisfied
- Quite dissatisfied
- Somewhat dissatisfied
- Slightly dissatisfied
- Neither satisfied nor dissatisfied
- Slightly satisfied
- Somewhat satisfied
- Quite satisfied
- Very satisfied

Format for phone or personal interview

Ask: How satisfied are you with your mobile phone service provider? Would you say that you are very dissatisfied, dissatisfied, satisfied, or very satisfied?

- Very Dissatisfied
- Dissatisfied
- Neutral (mark this if respondent indicates that they are in-between or not really satisfied nor dissatisfied)
- Satisfied
- Very Satisfied

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Avoiding Mistakes

- Simpler is better
- Avoid leading and loaded questions
- Avoid ambiguity: be as specific as possible
- Avoid double-barreled items
- Avoid making assumptions
- Avoid taxing respondents' memory

Simpler Is Better

- Words used in questionnaires should be readily understandable to all respondents
- The technical jargon of top executives should be avoided (e.g., “brand image,” “positioning,” etc.)

Avoid Leading and Loaded Questions

- Leading questions suggest or imply certain answers
 - Such questions may result in a “bandwagon effect”, which threatens the study’s validity
 - Partial mention of alternatives is a variation of this phenomenon
- Loaded questions suggest a socially desirable answer or are emotionally charged
 - Certain answers to questions are more socially desirable than others

Avoid Leading and Loaded Questions (cont'd.)

- Asking respondents “how often” leads them to portray their ideal behavior rather than average
 - An introductory counterbiasing statement or preamble to a question that reassures respondents that their “embarrassing” behavior is not abnormal may help
- A question statement may be leading because it is phrased to reflect either the negative or positive aspects of an issue
 - Split-ballot technique can be used to control for this bias

Avoid Ambiguity: Be As Specific As Possible

- Items on questionnaires are often ambiguous because they are too general
- Indefinite words such as frequently, often, ready, etc., have many different meanings

Avoid Double-Barreled Items

- A question covering several items at once is referred to as a double-barreled question and should always be avoided
- The results may be exceedingly difficult to interpret

Avoid Making Assumptions

- The researcher should not place the respondent in a bind by including an implicit assumption in the question
- Another frequent mistake is assuming that the respondent had previously thought about an issue
 - Research that induces people to express attitudes on subjects that they do not ordinarily think about is meaningless

Avoid Taxing Respondents' Memory

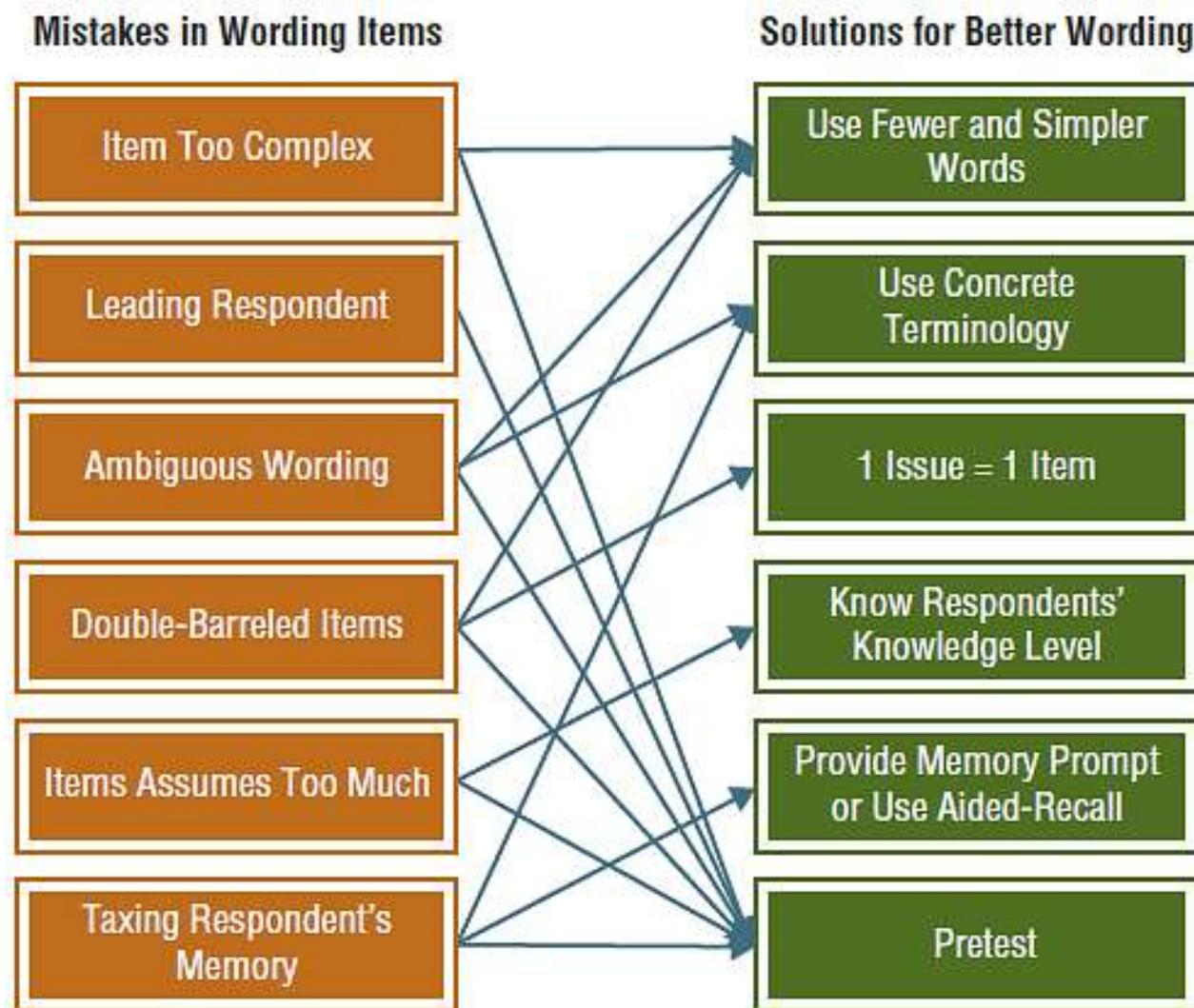
- Questions that give no clue as to the brand of interest are referred to as unaided recall questions
- Aided-recall questions provide a clue to jog the respondent's memory
- Additional consequences of respondents' forgetting the exact details of their behavior
 - Telescoping
 - Squishing

Avoid Taxing Respondents' Memory

- **Telescoping** occurs when respondents believe that past events happened more recently than they actually did.
- **Squishing:** when respondents think recent events took place longer ago than reality.

Solution: refer to an event that's memorable, like “How often have you gone to a sporting event since the World Series?”

EXHIBIT 11.2 Avoid Common Wording Mistakes in Questionnaire Design



Order Bias

- Question sequence
 - The order of questions may serve several functions
 - Order bias can result from an alternative answer's position in a set of answers or from the sequencing of questions

Order Bias (cont'd.)

- Tends to distort survey results
- Asking specific questions before asking about broader issues is a common cause
- Funnel technique—asking general questions before specific questions in order to obtain unbiased responses
 - Allows researchers to understand the respondent's frame of reference before asking more specific questions

Randomized Presentations

- An anchoring effect may occur with attitude scales
 - The first concept measured tends to become a comparison point from which subsequent evaluations are made
 - Randomization of items on a questionnaire helps to minimize this order bias
- A related problem is bias caused by the order of alternatives on closed questions
 - The order of these choices should be rotated

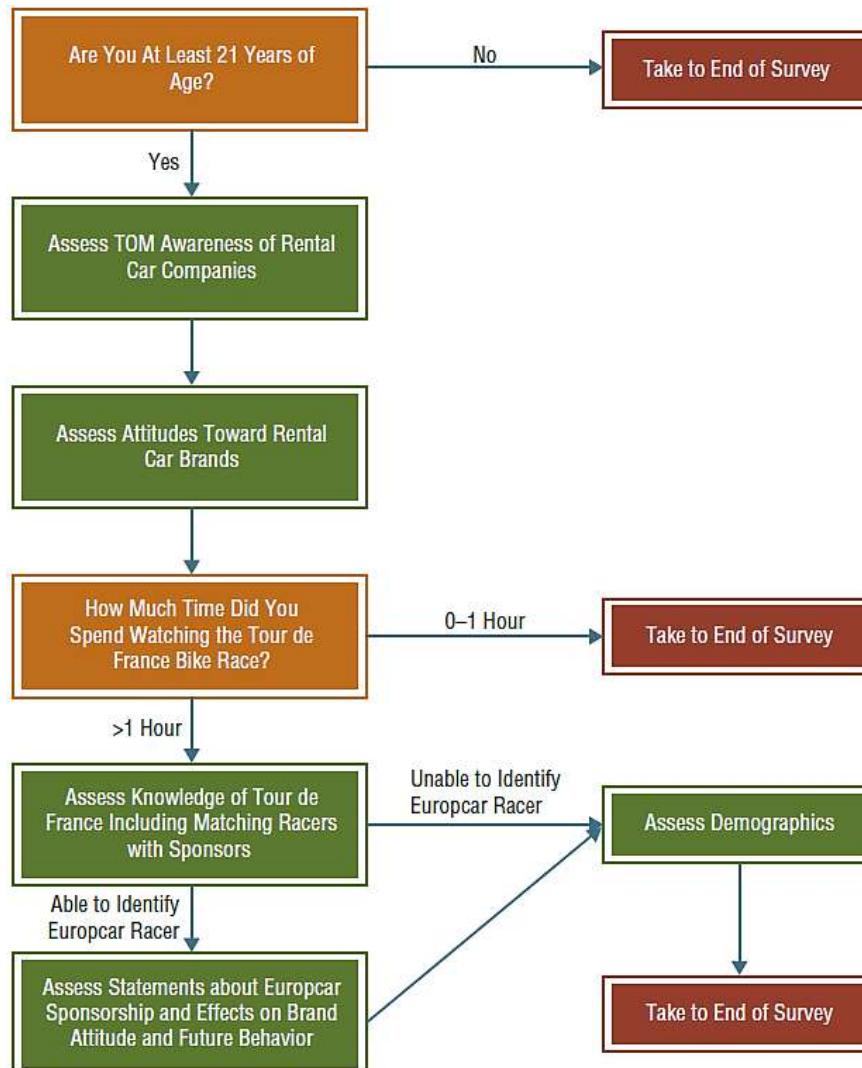
Randomized Response Techniques

- Involve randomly assigning respondents to answer either the question of interest (embarrassing) or a mundane question free from the possibility of embarrassment
- Use of these techniques remains controversial based in part on the willingness and ability of respondents to follow procedures

Survey Flow

- Refers to the ordering of questions
 - Often, certain sections of a questionnaire are irrelevant to a particular respondent
 - Asking a question that does not apply to the respondent or that the respondent is not qualified to answer may be irritating or cause a biased response or even a survey breakoff
- A breakoff means the respondent stops answering
- A filter question can serve as a branching mechanism

EXHIBIT 11.3 Survey Flow for Tour de France Sponsorship



Traditional Questionnaires

- Researchers should strive to keep questionnaires as short as possible
 - The multiple-grid (matrix table) question presents several similar questions and corresponding response alternatives arranged in a grid format
 - Instructions are often capitalized or printed in bold
 - Layout is extremely important when questionnaires are long

Survey Technology

- Survey software programs like Qualtrics allow several special features that facilitate design
- Several key advantages
 - Response quality
 - Timing
 - ❖ Speeders are respondents who take relatively little time to move through a survey—so little that the veracity of their responses is questionable
 - Randomized assignment

Survey Technology: Key Advantages (cont'd.)

- Physical features
 - Tracking interest – a heat map question is a graphical question that tracks the parts of an image or advertisement that most capture a respondent's attention
 - Status bar – provides a visual indicator of questionnaire length
 - Prompting
 - Piping – allows responses to a previous question to be inserted into later questions

EXHIBIT 11.4 Portions of an Interview Form Used by a Telephone Interviewer

1. Did you take the car you had checked to the Standard Auto Repair Center for repairs?

–1 Yes (SKIP TO Q. 3)

–2 No

2. (IF NO, ASK:) Did you have the repair work done?

–1 Yes



1. Where was the repair work done? _____

–2 No



1. Why didn't you have the car repaired?

2. Why didn't you have the repair work done
at the Standard Auto Repair Center? _____

3. (IF YES TO Q. 1, ASK:) How satisfied were you with the repair work? Were you . . .

–1 Very satisfied

–2 Somewhat satisfied

–3 Somewhat dissatisfied

–4 Very dissatisfied

(IF SOMEWHAT OR VERY DISSATISFIED:) In what way were you dissatisfied?

EXHIBIT 11.4 Portions of an Interview Form Used by a Telephone Interviewer (cont'd.)

4. (ASK EVERYONE:) Do you ever buy gas at the 95th Street Standard Center?
–1 Yes –2 No (SKIP TO Q. 6)
5. (IF YES, ASK:) How often do you buy gas there?
–1 Always
–2 Almost always
–3 Most of the time
–4 Part of the time
–5 Hardly ever
6. Have you ever had your car washed there?
–1 Yes –2 No
7. Have you ever had an oil change or lubrication done there?
–1 Yes –2 No

Pretesting and Revising Questionnaires

- Usually, the questionnaire is tried out on a group that is similar to the sample
- Pretesting allows the researcher to determine if the respondents have any difficulty understanding the questionnaire
 - This process can save the potential disaster of administering an invalid questionnaire to several hundred individuals
- A preliminary tabulation of the pretest results often illustrates issues

Pretesting and Revising Questionnaires (cont'd.)

- Pretests are typically conducted to answer questions about the questionnaire such as:
 - Can the questionnaire format be followed by the interviewer?
 - Does the questionnaire flow naturally and conversationally?
 - Are the questions clear and easy to understand?
 - Can respondents answer the questions easily?
 - Which alternative forms of questions work best?
 - What overall and item response rates can be expected?

Designing Questionnaires for Global Markets

- International marketing researchers must take cultural factors into account
- The most common problem involves translation into another language
 - Back translation is the process of translating the questionnaire from one language to another and then having it translated back again by a second, independent translator
 - The back translator is often a person whose native tongue is the language that will be used on the questionnaire