

Block 8: Questionnaire design

(Activity solutions can be found at the end of the document.)

We consider the importance of **questionnaire design** ensuring questionnaires are effective. Questionnaire design is an *art as much as it is a science*. Inevitably, questionnaire design involves a series of *trade-offs*. Guidelines for developing sound questionnaires are provided. Ultimately, we seek to *engage participants and stimulate their interest*.

Learning Objectives

- Explain the purpose of a questionnaire and its objectives of asking questions which participants can and will answer, engaging participants and minimising response error
- Understand the trade-offs which have to be made when designing a questionnaire
- Describe the process of designing a questionnaire, the steps involved and guidelines which must be followed at each step.

Reading List

Malhotra, N.K., D. Nunan and D.F. Birks. Marketing Research: An Applied Approach. (Pearson, 2017) 5th edition [ISBN 9781292103129] Chapter 13.

8.1 Questionnaire design

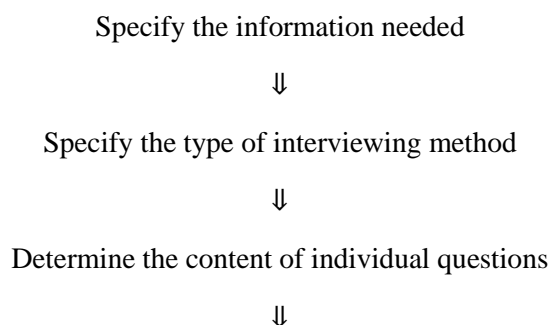
For each section of *Questionnaire design*, use the LSE ELearning resources to test your knowledge with the Key terms and concepts flip cards.

Questionnaire objectives

It is necessary to translate the information needed into a set of specific questions which the participants can, and will, answer. A questionnaire must uplift, motivate and encourage the participant to become involved in the interview, to cooperate and to complete the interview. A questionnaire should minimise response error.

Conducting a questionnaire can be considered an exchange of values. Figure 13.1 of the textbook considers the exchange of values between researchers and participants.

The questionnaire design process can be summarised as:



Overcome the participant's inability and unwillingness to answer



Choose question structure



Choose question wording



Arrange the questions in proper order



Identify the form and layout



Reproduce the questionnaire



Eliminate problems by pilot-testing

The questionnaire design process

Choosing the question structure

For individual question content, consider:

- **Is the question necessary?**
- **Are several questions needed instead of one?**

Sometimes, several questions are needed to obtain the required information in an *unambiguous manner*. Consider the following question.

- 'Do you think Coca-Cola is a tasty and refreshing soft drink?' (**Incorrect**)

Such a question is called a **double-barrelled question**, because two or more questions are combined into one. To obtain the required information, *two distinct questions* should be asked.

- 'Do you think Coca-Cola is a tasty soft drink? Do you think Coca-Cola is a refreshing soft drink?' (**Correct**)

To overcome the inability to answer:

- **Is the participant informed?**
- **Can the participant remember?**
- **Can the participant articulate?**

In situations where not all participants are likely to be informed about the topic of interest, a **filter question** which measures familiarity and past experience should be asked before questions about the topics themselves. A **'don't know' option** appears to reduce uninformed responses without reducing the response rate.

- 'How many litres of soft drinks did you consume during the last four weeks?' (**Incorrect**)

- ‘How often do you consume soft drinks in a typical week?’
 1. Less than once per week.
 2. 1 to 3 times per week.
 3. 4 to 6 times per week.
 4. 7 or more times per week. **(Correct)**

Participants may be *unable to articulate certain types of responses*, for example when asked to describe the atmosphere of a restaurant. Participants should be given aids, such as pictures, maps and descriptions to help them articulate their responses. Issues to consider include:

- **effort required of the participants**
- **context**
- **legitimate purpose**
- **sensitive information**
- **increasing willingness.**

Most participants are unwilling to devote a lot of effort to provide information.

- ‘Please list all the departments from which you purchased merchandise on your most recent shopping trip to a department store.’ **(Incorrect)**
- ‘In the list which follows, please tick all the departments from which you purchased merchandise on your most recent shopping trip to a department store.’
 1. Women’s clothing
 2. Men’s clothing
 3. Children’s clothing
 4. Cosmetics
 5. Jewellery
 6. Other (please specify) **(Correct)**

Context - Participants are unwilling to respond to questions which they consider to be inappropriate for the given context. The researcher should manipulate the context so that the request for information seems appropriate.

Legitimate purpose - Explaining why the data are needed can make the request for the information seem legitimate and increase the participants’ willingness to answer.

Sensitive information - Participants are unwilling to disclose, at least accurately, sensitive information because this may cause embarrassment or threaten the participant’s prestige or self-image.

Place sensitive topics at the end of the questionnaire. Preface the question with a statement that the behaviour of interest is common. Ask the question using the **third-person technique**, i.e. phrase the question as if it referred to other people. Hide the question in a group of other questions which participants are willing to answer. The entire list of questions can then be asked quickly. Provide response categories rather than asking for specific figures. Use randomised techniques.

When choosing the question structure, issues to consider include:

- **unstructured questions**
- **structured questions**
- **multiple choice questions**
- **dichotomous questions**
- **scale questions.**

An **unstructured question** is an *open-ended question* which participants answer in their own words. Examples include the following.

- ‘What is your occupation?’
- ‘Who is your favourite actor?’
- ‘What do you think about people who shop at organic food shops?’

A **structured question** specifies the *set of response alternatives* and the response format. A structured question may be multiple choice, dichotomous or a scale.

In *multiple choice questions*, the researcher provides a choice of answers and participants are asked to select one or more of the alternatives given.

- ‘Do you intend to buy a new watch within the next six months?’
 1. Definitely will not buy.
 2. Probably will not buy.
 3. Undecided.
 4. Probably will buy.
 5. Definitely will buy.
 6. Other (please specify).

A **dichotomous question** has only two response alternatives: yes or no, agree or disagree, and so on. Often, the two alternatives of interest are *supplemented by a neutral alternative*, such as ‘no opinion’, ‘don’t know’, ‘both’ or ‘none’.

- ‘Do you intend to buy a new watch within the next six months?’
 1. Yes.
 2. No.
 3. Don’t know.

Scales were discussed in detail in the previous block.

- ‘Do you intend to buy a new watch within the next six months?’
 1. Definitely will not buy.
 2. Probably will not buy.
 3. Undecided.

4. Probably will buy.
5. Definitely will buy.

Choosing the question wording

Issues to consider include:

- **define the issue**
- **use ordinary words**
- **use unambiguous words**
- **avoid leading or biasing questions**
- **avoid implicit alternatives**
- **avoid implicit assumptions**
- **avoid generalisations and estimates**
- **use positive and negative statements.**

Define the issue:

Define the issue in terms of who, what, when, where and why. Who, what, when and where are particularly important (**the four Ws**).

- ‘Which brand of shampoo do you use?’ (**Incorrect**)

The four Ws

The Ws	Defining the question
Who	The participant - It is not clear whether this question relates to the individual participant or the participant's
What	The brand of shampoo - It is unclear how the participant is to answer this question if more than one brand is
When	Unclear - The timeframe is not specified in this question. The participant could interpret it as meaning the sh
Where	Unclear - At home, at the gym, on the road?

Instead:

- ‘Which brand or brands of shampoo have you personally used at home during the last month?
In case of more than one brand, please list all the brands which apply.’ (**Correct**)

Use ordinary words:

- ‘Do you think the distribution of soft drinks is adequate?’ (**Incorrect**)

- ‘Do you think soft drinks are readily available when you want to buy them?’ (**Correct**)

Use unambiguous words:

- ‘In a typical month, how often do you visit a boutique?’

1. Never.
2. Occasionally.
3. Sometimes.
4. Often.
5. Regularly. (**Incorrect**)

- ‘In a typical month, how often do you visit a boutique?’

1. Less than once.
2. Once or twice.
3. 3 or 4 times.
4. More than 4 times. (**Correct**)

Avoid leading or biasing questions:

A **leading question** is one which clues the participant to what the answer should be.

- ‘Do you think that patriotic French people should buy imported cars when that would put French workers out of employment?’

1. Yes.
2. No.
3. Don’t know. (**Incorrect**)

- ‘Do you think that French people should buy imported cars?’

1. Yes.
2. No.
3. Don’t know. (**Correct**)

An alternative which is not explicitly expressed in the options is an **implicit alternative**.

- ‘Do you like to fly when travelling short distances?’ (**Incorrect**)
- ‘Do you like to fly when travelling short distances, or would you rather drive?’ (**Correct**)

Avoid implicit assumptions:

Questions should not be worded so that the answer is dependent on **implicit assumptions** about what will happen as a consequence.

- ‘Are you in favour of a balanced budget?’ (**Incorrect**)

- ‘Are you in favour of a balanced budget if it would result in an increase in personal income tax?’ (**Correct**)

Avoid generalisations and estimates:

- ‘What is the annual per capita expenditure on groceries in your household?’ (**Incorrect**)
- ‘What is the monthly (or weekly) expenditure on groceries in your household?’
‘How many members are there in your household?’ (**Correct**)

Questions which are in the form of statements should be worded both positively and negatively.

Determining the order of questions

Opening questions - The opening questions should be interesting, simple and non-threatening.

Type of information - As a general guideline, basic information should be obtained first, followed by classification information and, finally, identification information.

Difficult questions - Difficult questions or questions which are sensitive, embarrassing, complex or dull should be placed late in the sequence.

Effect on subsequent questions - General questions should precede specific questions, i.e. adopt a **funnel approach**.

- Question 1: ‘What considerations are important to you in selecting a boutique?’
- Question 2: ‘In selecting a boutique, how important is convenience of location?’ (**Correct**)

Logical order - The following guidelines should be followed for any **branching question**. The question being branched (the one to which the participant is being directed) should be placed as close as possible to the question causing the branching. The branching questions should be ordered so that the participants cannot anticipate what additional information will be required.

Form, layout, reproduction and pilot-testing

Divide a questionnaire into *several parts*. The questions in each part should be *numbered*, particularly when branching questions are used. The questionnaires should preferably use **pre-coding**. The questionnaires themselves should be *numbered serially*.

The questionnaire should be reproduced on *good-quality paper* and have a *professional appearance*. Questionnaires should take the form of a *booklet* rather than a number of sheets of paper clipped or stapled together. Each question should be reproduced on a single page (or double-page spread). *Vertical response columns* should be used for individual questions.

Grids are useful when there are a number of related questions which use the same set of response categories. The tendency to crowd questions together to make the questionnaire look shorter should be avoided. *Directions* or *instructions* for individual questions should be placed as close to the questions as possible.

Pilot-testing refers to the testing of the questionnaire on a small sample of participants to *identify* and *eliminate potential problems*. A questionnaire should not be used in the field survey without adequate pilot-testing. *All aspects of the questionnaire should be tested*, including question content, wording, sequence, form and layout, question difficulty and instructions.

The participants for the pilot-test and for the actual survey should be drawn from the same population. *Pilot-tests are best done by face-to-face interviews*, even if the actual survey is to be

conducted by online, postal or telephone methods, because interviewers can *observe participants' reactions and attitudes*. After the necessary changes have been made, another pilot-test could be conducted by online, postal or telephone methods if those methods are to be used in the actual survey.

A *variety of interviewers* should be used for pilot-tests. The pilot-test sample size varies from *15 to 30 participants* for each wave. **Protocol analysis** ('thinking aloud') and **debriefing** are two commonly-used procedures in pilot-testing. Finally, the responses obtained from the pilot-test should be coded and analysed.

[Table 13.1 of the textbook](#) provides a comprehensive questionnaire design checklist.

Discussion forum and case studies

To access the solutions to these questions and case study, click here to access the printable Word document or click here to go to LSE's Elearning resources.

Discussion points

1. Because questionnaire design is a craft, it is useless to follow a rigid set of guidelines. Rather, the process should be left entirely to the creativity and ingenuity of the researcher.'
2. 'Asking sensitive classification questions such as age or income at the start of a questionnaire upsets the sensibilities only of older participants; young participants are not concerned about where these questions are asked.'

Learning outcomes checklist

Use this to assess your own understanding of the chapter. You can always go back and amend the checklist when it comes to revision!

- Explain the purpose of a questionnaire and its objectives of asking questions which participants can and will answer, engaging participants and minimising response error
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Commentary on Discussion Point 1

While it is true that questionnaire design is more craft-based, abandoning the process completely to the creativity of the researcher is unwise. Consumer researchers and psychologists have uncovered principles by which we can improve the information gained from surveying. Knowledge of these principles and theories helps us to construct questionnaires to gain the maximal amount of information, but they do not spell out every issue.

Commentary on Discussion Point 2

The researcher imposes their language on participants. Their language communicates and puts participants in a particular frame of mind as they answer the questions posed. Unless that language is meaningful to participants, they will be put in a frame of mind that may not be intended, and be answering different questions from those set. As well as understanding the characteristics of language in target participants, questionnaire designers must be aware of the logical connections between questions - as perceived by target participants. This is the essence of this question - for any particular target group of participants, what language and logic is meaningful to them? There may be quite distinctive sensibilities in question types and positioning of questions between participant types.