

# Questionnaire design

This Advice Sheet introduces you to the some of the basics of designing a good questionnaire.

Many research projects and dissertations demand the collection of primary data from individuals. Questionnaires are often the best way of gathering such information and views. However, a badly designed questionnaire may get only unusable responses or none at all. This Advice Sheet offers guidance on avoiding the pitfalls, and ensuring a successful result.

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## What do you want to know?

Before you even write the first question, it is important that you have a very clear idea about what you want your questionnaire to achieve. Write down your research goals, and think about what information you need to elicit from respondents to meet those goals. Think also about how you are going to analyse each question to get the results you need. Remember there is a difference between things you need to know, and those it would be nice to know. Eliminate unnecessary lines of questioning at the planning stage.



### Maximise your chances of success

The aim of questionnaire design is to a) get as many responses as you can that are b) usable and accurate. To maximise your response rate:

- Give your questionnaire a short and meaningful title
- Keep the questionnaire as short and succinct as possible
- Offer incentives for responding if appropriate
- Be creative – use different colours and images to make it attractive
- Make it convenient – enclose a Stamped Address Envelope if appropriate.

## Who should you ask?

It may not be possible to survey every person who could provide a useful response to your questionnaire. In such cases, you will need to choose a sample from your population to survey.

**Population:** *all the members of the group you are interested in.*

**Sample:** *the subset of the population selected to receive the questionnaire*

**Respondents:** *the subset of the sample that actually complete and return the questionnaire*

When choosing your sample make sure it is representative of the population you are studying. For example, does it cover all ages, socio-economic groups, genders, etc. See Further Reading for more information on choosing a sample.

## Clear instructions

Maximise your response rate by providing clear information and instructions as follows:

- State who you are
- Outline what the purpose of the survey is and why their response is important
- Explain how answers will be treated with confidentiality and anonymity (unless agreed with the respondent)
- Provide clear instructions as to how each question should be answered – e.g. whether you are expecting one or more answers, or whether answers should be ranked – and if so, is 1 high or low?
- How to return the questionnaire and by what date

## Types of question

There are many different types of question you can use to get the information you need. In the main, these fall into **open** and **closed** questions.

An open question allows the respondent to use their own words to answer, e.g. *“what do you think are the main causes of racism?”*.

A closed question gives them pre-defined options, e.g., *“which of the following do you think are the main causes of racism: a, b, c, d”*.

The pros and cons of each are given in the Table.



Open questions	Closed questions
Elicit “rich” qualitative data	Elicit quantitative data
Encourage thought and freedom of expression	Can encourage ‘mindless’ replies
May discourage responses from less literate respondents	Are easy for all literacy levels to respond to
Take longer to answer and may put some people off	Are quick to answer and may improve your response rate
Are more difficult to analyse – responses can be misinterpreted.	Are easy to ‘code’ and analyse

## General principles when writing questions

- **Avoid leading questions:** *“Wouldn’t you say that...”, “Isn’t it fair to say...”*
- **Be specific.** Avoid words like *“regularly”, “often”, or “locally”* – as everyone’s idea of what is regular, often or local will be different.
- **Avoid jargon and colloquialisms** – ensure your language caters for all levels of literacy. Remember for some respondents English may be their second language.
- **Avoid double-barrelled questions:** *“Do you enjoy playing badminton and tennis?”* or *“Do you agree with the recommendations of the Stern Review on the economics of climate change?”* Ask for one piece of information at a time.
- **Avoid double negatives** – e.g. instead of asking respondents whether they agree with the negative statement, *“Smoking in public places should not be abolished”,* use the positive *“Smoking in public places should be abolished”*.
- **Minimise bias.** People sometimes answer questions in a way they perceive to be socially acceptable. Make it easy for respondents to admit social lapses by wording questions carefully. For example, *“How many times have you broken the speed limit because you were late?”* could be rephrased, *“Have you ever felt under pressure to drive over the speed limit in order to keep an appointment?”*. Then you could ask, *“How many times have you prioritised the appointment over keeping the speed limit?”*

- **Handling difficult or embarrassing questions.** To encourage a greater response to difficult questions, explain why you need to know that information. E.g., *“It would be very helpful if you could give us some information about yourself to help us put your answers in context.”*
- **Ensure options are mutually exclusive.**– e.g. *“How many years have you worked in academia: 0-5, 6-10, 11-15, over 15.”* Not, *“0-5, 5-10, 10-15...”*

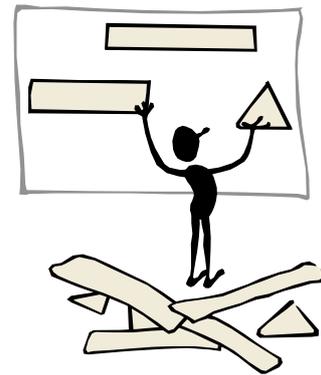
## Question order

Once you’ve got your list of questions, you need to think about the order in which they appear. Here are some general principles:

- **Put the most important items in first half of questionnaire.** Many people don’t complete questionnaires. This will ensure you get the most significant data from non-finishers.
- **Don’t start with awkward or embarrassing questions** – respondents may just give up.
- **Start with easy and non-threatening questions.** This encourages respondents to carry on with the questionnaire.
- **Go from the general to the particular.**
- **Go from factual to abstract questions.**
- **Go from closed to open questions.**
- **Leave demographic and personal questions until last.**

## Layout

The appearance of your questionnaire will go a long way towards encouraging (or discouraging) responses. Always allow enough room for respondents to answer questions and provide plenty of white space between questions so the questionnaire doesn’t look too ‘busy’. Use clear headings and numbering if appropriate. Although it’s tempting to use smaller fonts in order to squeeze your questionnaire onto a smaller number of pages, don’t make it so small that it becomes illegible. A minimum of 10pt should be used.



## Email vs print questionnaires

When your entire target population has access to email, it is very tempting to send a questionnaire electronically for speed and to avoid postal costs. However, there are some drawbacks to utilising email for circulating questionnaires and you need to weigh up the pros and cons of each.

Email questionnaires...	
Pros	Cons
Quick to send	Could be seen as spam and easily deleted
‘Free’ to send	If sending as an attachment, could be difficult to download
Easy to send to large populations so may improve response rate	If sending in the body of an email, may lack formatting
Easy for respondents to hit ‘Reply’ and respond.	If emailing to discussion lists, you may have no idea of the sample size and therefore your response rate.
	Difficult (impossible) to reply anonymously

One way to avoid the sample size problem would be to send email questionnaires to targeted individuals as you would a printed questionnaire. An alternative approach would be to use email to advertise a web-based survey. If you have the skills to create an online survey, it is possible to manipulate the layout and appearance as you would a printed questionnaire, and responses may automatically be collated (and even analysed) for you in a spreadsheet or similar package. A number of free questionnaire software packages are available on the web. See Further Reading below for examples.

## Piloting your questionnaire

Having created your questionnaire, it is important that you test it out on a small target group before you circulate it more widely. This will not only help you pick up any typos, but highlight any ambiguity in the wording of your questions. You may also discover that in order to analyse the data in the way you want, you need some extra questions. Or you may find out that some questions are superfluous. Give your pilot group the same information that you intend to give your target population – and a deadline!



## Further reading

A link to books and resources on questionnaire design can be found at :-  
<http://www.lboro.ac.uk/library/skills/quesdesign.html>

All study advice sheets are also available to view and download on the following website:  
<http://www.lboro.ac.uk/library/skills/>



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