



**METHODOLOGY**

**QUESTIONNAIRES**

Using questionnaires to obtain survey data

*Social Approach*

Generally, the term **survey** refers to both the idea of a **questionnaire** or an **interview**. A survey can be carried out for a wide number of reasons. Those people who are the survey-takers are called **participants**. A survey is planned with a set **aim** or aims in mind. A **hypothesis** is usually set too, which is about what is being tested and setting a level of measurability about it. For example, in a survey to investigate fashions of shoes people wear, the *aim* might be “to investigate types of shoes people wear” whereas the hypothesis might be “yellow shoes are worn more by women than men”. Experiments also have hypotheses which are alternatives to the **null hypothesis**. In an experiment, the alternative hypothesis is called an experimental hypothesis.

**Null Hypothesis** -

hypotheses which state that there will be no common relationship in the data unless by chance

**Alternative Hypothesis** -

alternative hypotheses to the null hypothesis, stating the expected outcome of the data

**PLANNING A QUESTIONNAIRE**

A questionnaire must be designed very carefully. There are a wide variety of types of questions to choose from, as outlined below:

- ✎ A good questionnaire contains both **open** and **closed** questions. An open (or open-ended) question allows the respondent to give their thoughts, opinions, reasons and justifications where they are not tied to a set of responses chosen by the questionnaire creator, for example “Explain why you like/dislike football”. A closed (or closed-ended) question limits the options of responses the respondent has to choose from in answer to the question, for example, a **dichotomy** (e.g. “Yes” or “No” answers) or a **Likert**-scale question. The balance is particularly important, having too many open questions which require long answers put the respondent off completing the questionnaire, so these should be limited to only the absolute essentials you need to ask the participant
- ✎ Questionnaires all aim to gather **data**, but there can be different types. **Personal data** (e.g. age and gender) should only be asked for if it is completely relevant to the subject, as it is unethical to ask for unnecessary to ask for irrelevant personal information and also puts many people off doing the questionnaire
- ✎ The two main types of data obtained from a questionnaire are **quantitative data** and **qualitative data**. Closed questions tend to generate quantitative data, which is easy to collate and analyse because all of the answers are usually multiple-choice and therefore easy to group together and spot immediate correlations. Open questions, however, produce qualitative data which provides more in-depth information into the participants’ thoughts and opinions, but because all respondents respond to the open questions differently, this data is hard to collate, and even harder to analyse as a single group

Some of the possible types of question you might find in a questionnaire are shown below:

Tick the appropriate box which corresponds with your opinion for each of the below statements:

(Key: **SD** Strongly disagree, **D** Disagree, **DK** Don’t know, **A** Agree, **SA** Strongly agree)

Statement	SD	D	DK	A	SA
I feel confident about my school studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to go out with my friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy going ice skating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychology is the most fun subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The box above shows a **Likert-scale** question. This question type involves the respondent ticking a box to correspond with their level of agreement with a set statement, where the boxes are along a measured scale. This is a closed question which will produce quantitative data which can be easily collated and analysed.

Rate yourself on the following scales by placing a cross (\*) on the line where you think you fit:

Sad	0	_____	10	Happy
Mean	0	_____	10	Friendly
Selfish	0	_____	10	Generous

The above question is a rating scale question, where the respondent is required to mark where they think they fit among the scale. Again, this is a closed question where the participant is required to *self-evaluate*. This means that the answers may be biased based on how the respondent wants the experimenter to see them. This is called **social desirability** (more on this later on).

Circle any of the following words below which you believe apply to your personality

Horrible	Polite	Generous	Messy
	Selfish	Handsome	Fussy
Jealous	Intelligent	Sporty	Caring

The question above is again a closed question in which the respondent must identify characteristics which they believe applies to their own personality. As with the others, this is open to bias, as many participants prefer to answer as they want to be seen (for example, not many people would choose to circle "Selfish" even if they think that they are selfish, purely because they don't want the experimenter to think they are selfish, as it is considered a negative quality).

Why do you think football is the UK's most popular spectator sport?

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This is an example of an open-ended question in which the respondent is free to answer however they want to. This can be useful because the participant replies with a lot more information. This is because they are free to express opinions, reasons and justifications for their answer. The drawbacks to using this type of question are that it is harder to collate and analyse the data, and that different respondents can respond differently because these questions can often be ambiguous and be interpreted differently.

The table below displays the main advantages and disadvantages of open and closed questions:

	Strengths	Weaknesses
Closed	<ul style="list-style-type: none"> <li>All respondents give standardised answers which means numbers can be generated as answers, i.e. the data is easily collated</li> <li>The wording of the question can be used to make the aim clear, so that all respondents interpret the question identically – making the data more reliable</li> </ul>	<ul style="list-style-type: none"> <li>Respondents are forced to choose from a set of given answers, when they may not necessarily agree with any of the choices they are presented with</li> <li>Certain choices may mean different things to different respondents (e.g. "unsure" may mean 'don't know' to some people, and 'sometimes yes, sometimes no' to others)</li> </ul>
Open	<ul style="list-style-type: none"> <li>Respondents are not forced into specific answers and so can say what they truly want to say</li> <li>More detailed, richer data can be obtained</li> <li>Questions open to interpretation and so the data obtained is more valid as the answers are what the respondents 'really' think</li> </ul>	<ul style="list-style-type: none"> <li>Responses are difficult to analyse as they are long, detailed, and different from one another</li> <li>Because the data obtained is qualitative, the data cannot be collated and averages cannot be calculated or displayed as graphs or in tables</li> <li>Sometimes respondents choose to miss out these questions as it is difficult/boring to respond to</li> </ul>

### FACTORS TO CONSIDER WITH DIFFERENT TYPES OF DATA

Strengths and weaknesses of qualitative data:

- ✓ It gives detailed information on a subject and allows for in-depth analysis. This is because the level of detail on a respondent's answer extends beyond the simple "yes" or "no" choices you get with closed questions. There are certain key words in an answer which express their real opinions, also, for example, whether a participant uses 'and', 'or' or 'but' says something about their attitude towards the subject
- ✓ As with most open-ended questions, qualitative data tends to be more valid because the respondent writes down what they *really* think, rather than what they think the questionnaire wants them to think
- ✗ Answers are harder to compare against each other, and they all take longer to analyse. Answers may be very different that they are hard to categorise, and the results can be very long and hard to summarise
- ✗ The data can take a long time to gather because it often proves difficult to find respondents willing to answer the longer open-ended questions which usually provide this qualitative data; similarly, many respondents will be reluctant to provide in-depth answers as they don't benefit from contributing such long answers

Strengths and weaknesses of quantitative data:

- ✓ Answers can be fairly quickly and easily collated (categorised and averaged) and analysed. Averages, percentages and other statistics can be easily drawn from the findings with this type of data, and they can be presented easily in graphs and tables which are attractive and easy to understand
- ✓ Most quantitative data is reliable because the way in which it is gathered is controlled sufficiently for the study to be replicated in order to see if similar results can be obtained
- ✗ Because the respondents have a set group of choices which they can use as their answer in the closed questions, the answer they want to put down may not be there. They are forced to choose from one of the options there (unless an "Other" option is given in the questionnaire), which means that they are having to answer untruthfully
- ✗ The respondents' answers may be untruthful in the sense that their answers have been guided by the way that the questions have been set. The three aspects of these methods of "lying" are outlined below:

#### **Social Desirability** -

respondents answering to a question how they think they ought to be seen to be "socially correct" (for example, no one will answer "Yes" to the question "Are you a racist?")

#### **Demand Characteristics** -

occurs when respondents try to 'guess the purpose' of the questionnaire or piece of research and so give the answers which they think the researcher would want them to give

#### **Response Bias** -

happens when questions are listed so that respondents may answer (for example) "no" so many times in a row that it becomes habit and they answer all future questions similarly

### COLLATION OF QUESTIONNAIRE DATA

It is very easy to collate and analyse quantitative data obtained from closed questions. Take the Likert-scale question from the above example. The scale works so that you receive a certain number of points per answer per question:

Tick the appropriate box which corresponds with your opinion for each of the below statements:

(Key: **SD** Strongly disagree, **D** Disagree, **DK** Don't know, **A** Agree, **SA** Strongly agree)

Statement	SD	D	DK	A	SA
I feel confident about my school studies	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
I like to go out with my friends	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
I enjoy going ice skating	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
I feel self-conscious about my personality	<input type="checkbox"/> (5)	<input type="checkbox"/> (4)	<input type="checkbox"/> (3)	<input type="checkbox"/> (2)	<input type="checkbox"/> (1)

For each person that responds to that questionnaire, there will be an individual score. For example, if someone answered DK, A, D, A in order of the questions, they would receive  $3 + 4 + 2 + 2 = 11$  points. If ten people from the **target population** responded to the questionnaire, the data is easily **collated** by adding up the individual scores and dividing the overall score by 10. This average is then the average score for your target population based on your findings. However, in order to obtain a **representative sample**, you would need a bigger sample to test.

Another example of a closed question is the “Yes”/“No” response. 50 people were asked the question “Do you like pizza?” and their responses are shown in the table. The results showed that 70% did like pizza, 24% did not like pizza, and the remaining 6% were unsure.

Answer	Number of answers	%age
Yes	35	70
No	12	24
Unsure	3	6
<b>Total</b>	<b>50</b>	<b>100</b>

### DRAWING CONCLUSIONS

It is important that all questions asked in a questionnaire are appropriate to the topic in mind, and this can be done by making sure that each question is relevant to the aims set at the beginning of the questionnaire, before it was even written. When the data has been collated and statistics have been drawn from them (mainly the closed-ended questions), you can explain what the results show and how well they match up to your initial hypotheses.

An important part of the questionnaire process is making sure that the right questions have been asked, and once the process is finished, you need to ask yourself if you have found what you set out to find. Businesses use them all the time to develop products based around the consumers’ wants and needs, and this can also be applied to psychology, in that the data can be used to *generalise* the target population.

### AN EVALUATION OF QUESTIONNAIRES

Strengths and weaknesses of questionnaires are shown below:

- ✓ The same questions are asked of all participants using a set procedure. There is very little variation in the way that the questions are asked of the respondents, so nothing should really affect the answers given except for their own opinions, which is what you are looking to obtain
- ✓ Provided the researcher does not interfere with the questionnaire process or affect the answers given in any way, the results from the questionnaire are valid
- ✓ Because they use the same questions and have a set procedure, the questionnaire process is easily repeated – and so the study is said to be reliable
- ✗ Most questionnaires consist of a series of fixed questions and do not allow the respondents to expand on their answers or add their own input – this may often mean that their responses are not valid