

Types of Data

The methodologies covered in previous chapters all collect different types of data. Data can be classified into four categories: **quantitative, qualitative, primary, and secondary**. You will need to be able to recognise and describe these different data categories.



Quantitative Data

DEFINITION

QUANTITATIVE DATA

Numerical information that can be measured, counted, or statistically analysed.

EXAMPLE

Psychologists might collect quantitative data by measuring reaction times in milliseconds, recording the number of words remembered in a memory test, gathering scores on a standardised questionnaire (e.g., a 1-10 anxiety rating), or counting how many aggressive acts occur during an observation.



Data is easier to analyse. Patterns and trends are easier to establish. Data can also be collected from larger samples.



This type of data lacks depth and detail and gives a less holistic and valid picture of human behaviour.

Qualitative Data

DEFINITION

QUALITATIVE DATA

Descriptive, non-numerical information that captures participants' thoughts, feelings, or experiences in depth.

EXAMPLE

Psychologists may collect qualitative data through open-ended interview responses that reveal how someone feels about a situation, written diary entries describing daily experiences, detailed observation notes capturing interactions or emotions, or narrative answers on questionnaires that explain the reasons behind a person's behaviour.



Provides a richer and more detailed picture of human behaviour, thought, and emotion. This increases the validity of the data.



Data analysis is complex and time-consuming, making trend identification challenging and often resulting in smaller data samples.

Primary Data



DEFINITION

PRIMARY DATA

Information that psychologists collect first-hand directly from participants for the specific purpose of their study.

EXAMPLE

In psychology, primary data might include responses to questionnaires or interviews designed by the researcher, scores from experiments such as memory or reaction-time tasks, or behavioural observations recorded in a lab or natural setting. It also includes physiological measurements like heart rate or brain scan results collected specifically for the study.

The researcher can control the format of the data so that it is appropriate for the exact aims and purpose of the study.



The data may be low in validity or reliability if the study is poorly designed or variables are not properly controlled.



Secondary Data



DEFINITION

SECONDARY DATA

Information that has been collected by someone else for a different purpose but is later used by psychologists for their own research.

EXAMPLE

In psychology, secondary data might include government statistics (e.g., mental health prevalence rates), school records, medical or clinical case notes, or previous research findings published in academic journals. It can also come from existing interviews, observations, or datasets that the researcher did not collect themselves.

As data is not produced for the purpose of the study, there will be no demand characteristics, and validity will be higher.

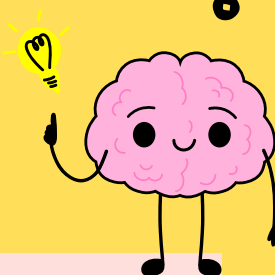


As data is not produced for the purpose of the study, it may not specifically match the aims and purpose of the research.



Task

For each of the scenarios below, identify if the data collected is quantitative or qualitative and if it is primary or secondary:



1. A psychologist measures participants' reaction times in milliseconds during a memory experiment.
Quantitative / Qualitative / Primary / Secondary
2. A researcher analyses diary entries written by participants describing how they felt during a week.
Quantitative / Qualitative / Primary / Secondary
3. A psychologist uses government mental health statistics from 2015-2024 to examine trends in anxiety diagnoses.
Quantitative / Qualitative / Primary / Secondary
4. A researcher interviews parents about their experiences of raising autistic children, collecting open-ended responses.
Quantitative / Qualitative / Primary / Secondary
5. A clinical psychologist re-analyses hospital case notes to study patterns in stroke recovery.
Quantitative / Qualitative / Primary / Secondary
6. Participants complete a questionnaire rating their stress on a scale from 1 to 10.
Quantitative / Qualitative / Primary / Secondary
7. A researcher codes the number of aggressive acts displayed during a 15-minute playground observation.
Quantitative / Qualitative / Primary / Secondary
8. A psychologist reads a published study from 1998 and extracts its interview transcripts for re-analysis.
Quantitative / Qualitative / Primary / Secondary
9. Students answer an open question: "Describe how you feel about starting sixth form."
Quantitative / Qualitative / Primary / Secondary
10. A researcher records heart-rate changes in participants while they complete a stressful task.
Quantitative / Qualitative / Primary / Secondary
11. A psychologist compares exam scores provided by a school for all Year 12 students.
Quantitative / Qualitative / Primary / Secondary
12. A researcher watches CCTV footage from a shopping centre to study helping behaviour.
Quantitative / Qualitative / Primary / Secondary



Exam Skills

A psychologist is investigating how stressed sixth-form students feel during exam season. She is designing a survey and wants to include at least one question that will gather quantitative data from participants about their stress levels.

- (a) Suggest one question the researcher could include in her survey to gather quantitative data. [1]

EXAMPLE

'How stressed do you currently feel on a 0-5 scale, with 0 being not at all stressed and 5 being very stressed?'

- (b) Explain why the question you suggested in (a) would produce quantitative data. [2]

This question would produce quantitative data because the answer to the question would result in a numerical value. In this case it would be a 0-5 stress self report rating.

WHY

would it produce quantitative data

LINK

to the research context

- (c) Briefly outline one strength and one weakness of collecting quantitative data in this research. [4]

One strength of collecting quantitative data is that it is possible to collect a large sample of data. Because a closed question on stress is used, a large number of students could quickly respond with their stress score, making data more generalisable.

One weakness of quantitative data is that it lacks depth. The researcher will not know the reasons for the stress scores given, making the data lower in validity.

WHAT

is the strength/weakness?

WHY

is it a strength/weakness?

LINK

to the research context

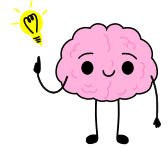


Exam Skills

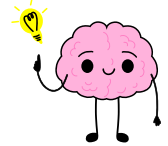


A researcher is exploring how teenagers feel about having part-time jobs while studying. She is creating a self-report questionnaire and wants to include a question that will gather qualitative data about their personal experiences.

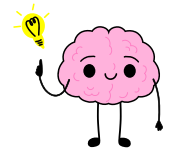
- (a) Suggest one question the researcher could include in her survey to gather qualitative data. [1]



- (b) Explain why the question you suggested in (a) would produce qualitative data. [2]



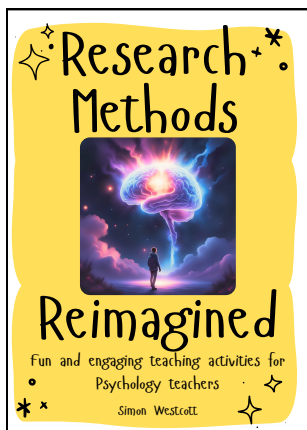
- (c) Briefly outline one strength and one weakness of collecting qualitative data in this research. [4]



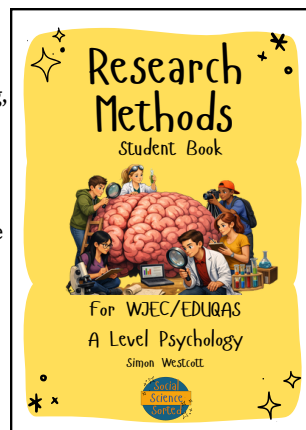


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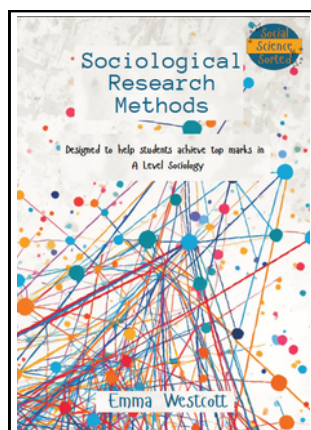


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