OCR Psychology A-level

Paper 1: Research Methods

Self Reports

For the OCR specification there are four main techniques to learn for the collection and analysis of data in a psychological study. These techniques are **self-report**, **experiment**, **observation** and **correlation**. This resource will cover the self-report method.

SELF-REPORT:
A method of gathering data where participants provide information about themselves, such as their thoughts and behaviours, without interference from the experimenter.

Types of Self-Report:
- Questionnaires
- Interviews
- Diary entries
- Psychometric Tests

Self-reports can be used as part of a study as a way of *measuring the dependent variable (DV)*. It can however be used where there is no independent variable (IV) to gain data on a particular subject, eg. Interviewing criminals about their childhood. This means that the information gained is *often subjective and from an individual's' own perspective.*

An example of using a self report could be an experimenter wanting to find out whether the temperature outside affects people's mood. The temperature each day could be measured and recorded, and each participant would fill out a questionnaire once a day that asks them to rate their mood on a scale of 1 to 10 (1 being very unhappy, 10 being very happy).

When recording data in a study, it is categorised as being *QUANTITATIVE* or *QUALITATIVE.*

Quantitative: Numerical data that expresses a quantity, amount or range, usually associated with units. This is very useful for comparing the data collected and directly applying statistical tests.

Qualitative: Non-numerical data, usually with detailed descriptions that describe the data rather than define it. This is very useful for providing extra details and explanations from participants, but makes comparing and categorising data more difficult.

Questionnaires
A set of questions given in written form.
There are several different types of question format that can appear on a questionnaire:
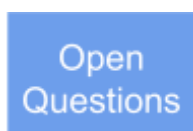
 Provide **qualitative** data as the participant can respond in their own words, giving as much detail as they choose.
Eg. What is your favourite childhood memory?

Closed Questions → Provide **quantitative** data as the available responses that the participant can give are limited. This means the response may lack detail, but can be easily quantified.

There are different types of closed questions that you need to know: **fixed choice**, **checklist**, **ranking**, **likert scale** and **semantic differential scale**. These are explained below.

Fixed Choice: The question is phrased so that the participant must choose a response from given choices, usually "yes" or "no". For example: "Are you a vegetarian?   Yes/No"

Checklist: The participant is given a list of options to respond to the given question and are asked to choose one/ as many that apply.
For example:
"Which of these subjects do you study for A-Levels? (Tick all that apply)"
- Mathematics
- Physics
- Biology
- Chemistry
- Music
- Psychology
- Art
- Economics

Ranking: Participants must put a list of options into order as instructed by the question. For example: "Rank the following revision techniques according to how often you use them (1 = Most often, 5 = Least often)
- Making posters
- Mind Maps
- Reading textbooks
- Watching videos
- Teaching a friend

Likert Scale: Participants indicate on a scale how much they agree with a statement given.
For example: "I enjoy going to sixth form/ college" Circle one answer:
Strongly agree/ Agree/ Unsure/ Disagree/ Strongly disagree.

Semantic Differential Scale: The respondent must indicate which of two contrasting adjectives they agree with in regards to a statement given.
For example: "How was your summer holiday this year? (Circle one) Exciting/ Boring."

In the Paper 1 exam you may be asked to recognise or write one of these styles of question for a self report questionnaire. It is important to always add context where necessary (e.g. a time frame, "How many times **in a week** do you go to the gym?") and remember the definitions and an example as this may help you in the multiple choice section.

Strengths of Questionnaires	Weaknesses of Questionnaires
Questionnaires are **easy to administer** to participants as they can be posted or emailed.	There may be **response bias**, such as a tendency to always choose a certain answer, skipping questions or being distracted.
They can be used to gain data from a **very large sample or population.**	Bias can still be present if the participant wants to impress or help the experimenter gain the results they want.
They are **time and cost efficient** (if sent over email this is free and can be done in the participants' own time)	Participants may **interpret questions differently or misunderstand them** which will give invalid and uncomparable results.
Quantitative data gained through closed questions is **easy to compare and analyse** and is ideal for use in **statistical tests.**	Open questions and qualitative data will gain data that is **difficult to analyse and categorise.**
Open questions allow for experimenters to find out **personal perspectives and reasons** behind thoughts and decisions.	The possible responses allocated for closed questions **may not represent the participants true answer**; the participant has to respond in some way despite their answer not being a valid choice, giving unrealistic results.
Demand characteristics and social desirability bias are less likely as the participant will write the responses in their own time and may even be anonymous. This gives **more valid data.**	
Questionnaires are the **only way of gaining data** for some topics such as opinions and thoughts as these cannot be measured in any other way.	

Interviews

A series of verbal questions given face-to-face between an interviewer and an interviewee (the participant).

There are three different types of interview that you must know:

1. Structured Interview

A structured interview has predetermined questions which are asked in exactly the same way and in the same order to each interviewee with no deviations. They use closed-ended questions that can be quantified.

Strengths of a Structured Interview	Weaknesses of a Structured Interview
The standardised procedure involved ensures that the <u>interviews are easily replicable.</u>	The inflexibility of the interview questions means that <u>key details may be missed</u> as new questions cannot be raised during the interview.
As they will not deviate from the set questions, they are usually quite <u>quick</u> and can be completed in the same time for each participant.	Only closed questions are asked, meaning the data gained is <u>quantitative and lacks detail.</u>
Structured interviews are useful for <u>ensuring methodological reliability</u> due to standardisation.	

2. <u>Semi-structured Interview</u>

A semi-structured interview has guidelines on which questions to ask and topics to cover, but can deviate and vary with each individual according to what other relevant topics may be raised. They can contain open and closed questions and the timings and phrasing can vary with each interview.

Strengths of a Semi-Structured Interview	Weaknesses of a Semi-Structured Interview
Semi-structured interviews enable the researcher to gain additional details.	It is difficult to use qualitative data gained from open or unique questions in statistical tests or when looking for patterns.
The interviews will all cover the specified topics so data can be used for comparison to an extent.	Researcher bias can occur as the lack of structure could allow for leading questions that alter the responses.

3. <u>Unstructured</u>

In an unstructured interview, only the topic of discussion such as childhood, jobs or experiences are planned, with no particular questions being predetermined. All the questions are open and the process itself is more like a 'guided conversation' than a formal interview.

Strengths of an Unstructured Interview	Weaknesses of an Unstructured Interview
Increased concurrent validity as the interviewer can offer clarification or reword questions when needed, so the information gained is truly accurate.	The interviews must not create bias through leading questions or leading body language. To avoid this, they must be trained which is not cost effective.
The flexibility of the questions means that they	It is also very time consuming to interview each

can be altered and added to according to the responses received, allowing extra detail to be gained.	participant if the sample is very large.
Qualitative data is gained, allowing for highly detailed information.	Analysing and categorising the data gained is difficult as it is qualitative. This makes it harder to make conclusions or find significant results that support/disprove the alternate hypothesis.

Diary Entries

You need to know what a diary entry is and how this is a form of self-report as it can appear in Paper 1 or Paper 2 in section C (practical applications).

Participants may keep a diary for a determined amount of time, in which they write down thoughts, events or particular responses to a given topic by the experimenter.

For example, during a drug trial participants may keep a diary entry that notes down any side affects or thoughts they have on the medication and its usefulness throughout a given time period.

Diary entries are useful for gaining vast amounts of qualitative data from a large sample quite quickly, with minimal researcher bias or social desirability effects as the participant may be anonymous. However, the data cannot be easily compared or statistically analysed.

Psychometric Tests

A psychometric test is a series of standardised, closed questions that measure the mental characteristics of the participant. This could include IQ, cognitive abilities or personality traits. For the exam you will need to know that they are administered in the form of a questionnaire and are used as a measurement tool.

Psychometric tests are designed to test and measure certain characteristics in order to use the data gained to compare and analyse the results from each participant.

They are often used alongside job interviews to give a value that measures the individual's cognitive abilities in relation to job tasks so that the applicants are compared in a more fair way.

Evaluating Self-Reports: Validity

Internal: Does a self-report actually measure what it is supposed to?
External: Do the results gained from using a self-report method apply to real life?
Lacking external validity means that the results cannot be generalised to real populations or situations.

Population: Can the results gained from the sample be generalised to the target population?

If the target population is car drivers in the UK, giving a questionnaire only to women from Cornwall aged 20-40 will cause the results to lack population validity as the sample does not represent the target population on which the research is intended to apply to.

Low population validity means that the results cannot be generalised to a larger population.

Ecological: How well do the results gained from using the self report method apply to real life situations and environments?

If a questionnaire asks people how they feel they would respond in an emergency situation, is this a true indicator of how that person would behave in certain situations? Arguably it is not, because the results gained may not reply to the real life scenario in question as many other situational and personal factors would then be involved. This type of self-report therefore may lack ecological validity.

The researchers may also have little control over results gained from self-report as extraneous variables are difficult to control as, for example, if a questionnaire is filled out in the participants home, variables such as distractions, tiredness, or time may all be contributing factors to the responses made. This is another way in which this method can lack ecological validity.

To improve validity when using the self-report method:
- Removing any leading questions or opportunities for socially desirable responses (e.g make questionnaires anonymous).
- Add open questions that collect qualitative data so that the data collected is relevant to the issue being researched.
- Ensure the sample is representative and unbiased. This could be achieved using a random sampling or using a large sample, for example.

Reliability:

Test retest: This is a efficient way of ensuring reliability when using the self-report method. The same participant is tested with the same measures over a period of time to ensure the consistency of the measure and the responses.

For example, the participants could fill out the same questionnaire over a period of time to see if their responses change at all. If they do not change significantly across all participants, then the measure (which in this case would be the questionnaire used) has external reliability.

Split-half: Tests the consistency of a measure by splitting a test in half. This is useful for psychometric tests or questionnaires. It ensures that each part of the test contributes equally to the results.

For example, this method could be used to assess the internal reliability of an IQ test. If on the first 50 questions of 100, a participant achieves an IQ score of 80, but on the second 50 questions achieves an IQ score of 120 then this IQ test lacks split half reliability.

To improve reliability when using the self-report method:

- Use methods such as split half and test retest to check that the results have reliability.
- Ensure that procedures are standardised - train interviewers and write detailed instructions for questionnaires to avoid ambiguity.