



Cambridge International AS & A Level

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PSYCHOLOGY

9990/22

Paper 2 Research Methods

October/November 2025

1 hour 30 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages. Any blank pages are indicated.

**Section A**

Answer **all** questions.

- 1 (a) Outline what is meant by the term 'fatigue effect'.

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.....

[1]

- (b) Suggest **one** fatigue effect that could have occurred in the study by Hölzel et al. (mindfulness and brain scans).

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[1]

- 2 Data can be qualitative or quantitative.

- (a) Outline what is meant by 'qualitative data'.

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[1]

- (b) Describe the qualitative data that was collected from **one** of the following studies:

- Milgram (obedience)
- Piliavin et al. (subway Samaritans).

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[2]

- 3 In the study by Fagen et al. (elephant learning) behaviours such as, 'trunk here', 'trunk up' and 'bucket', were recorded using a structured observation.

Explain **one** strength of using a structured observation in this study.

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[2]



4 In the study by Pozzulo et al. (line-ups):

- (a) There was a sample of children and a sample of adults. In both samples there were some males and some females.

Suggest why it was important that **both** males and females were present in **both** samples.

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[2]

- (b) The standard deviation for the age of the adults was larger than the standard deviation for the age of the children.

- (i) Describe what is meant by a 'standard deviation'.

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[2]

- (ii) Explain **one** reason why the standard deviation for the age of the adults was larger than the standard deviation for the age of the children.

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[2]



- 5 Describe semi-structured interviews and unstructured interviews, using any example(s).

[6]





- 6 Dr Raj is conducting a case study to investigate an elderly man, who he refers to as 'Mr J', who has an exceptional memory.

- (a) Dr Raj is considering the ethics of his study.

- (i) Explain **one** ethical reason why Dr Raj refers to his participant as Mr J.

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[2]

- (ii) Mr J can recall most of his life events, including negative ones.

Explain the ethical guideline Dr Raj should follow when studying Mr J because he can remember negative life events.

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[2]

- (b) Dr Raj wants to triangulate his data.

Explain what is meant by triangulation, using Dr Raj's study as an example.

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[2]

- (c) Explain **two** weaknesses of case studies.

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[4]



- 7 Lorna has noticed that children often talk to their toys. She thinks this may be related to the children's vocabulary size (how many words they know). Lorna is planning a correlational study to investigate whether there is a relationship between how often the child talks to their toys and the child's vocabulary size.

- (a) Suggest **one** way that Lorna could measure a child's vocabulary size.

.....

..... [1]

- (b) Lorna must ask the children and their parents/guardians for consent to participate in her study.

- (i) Explain why it is important to ask **both** the children and their parents/guardians for consent in this study.

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..... [2]

- (ii) Suggest **one** suitable way that Lorna could ask for consent from the children.

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- (c) Lorna finds a positive correlation. She concludes that vocabulary size in children is increased by talking to toys more often.

Explain why this conclusion is **not** correct.

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..... [2]



- 8 Dr Chand is going to measure how much adults want to participate in social activities, such as team sports or attending a festival.

- (a) Dr Chand wants to collect quantitative data about how much adults want to participate in social activities. He can use the methods of questionnaires or interviews.

Suggest **two** ways that Dr Chand could collect this data using one or both of these methods.

1

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2

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[2]

- (b) For **one** of the ways of collecting data you suggested in part (a):

- (i) Explain **one** way this method of collecting data is valid.

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[2]

- (ii) Explain **one** way this method of collecting data is not valid.

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[2]



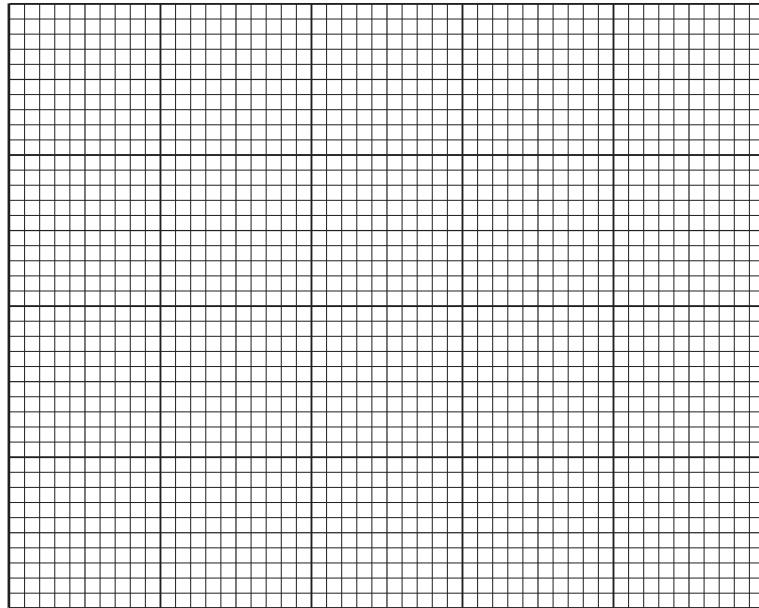
- (c) When Dr Chand conducts his study, he gives each adult a score out of 15 for how much they want to participate in social activities. He divides the adults into four different age groups and finds an average willingness to participate score for each group. These averages are shown in Table 8.1.

Table 8.1

	age groups (years)			
	20–29	30–39	40–49	50–59
average willingness to participate score	14	10	7	12

Plot a suitable graph of Dr Chand's data. You **must** label the axes.

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[4]



Section B

Answer all questions.

- 9 Dr Gul is investigating whether people focus their attention more on brightly coloured advertisements than on less brightly coloured advertisements. He is planning to conduct a field experiment on a train.

- (a) Describe how Dr Gul could conduct a field experiment to investigate the effect of colour brightness on how much train passengers focus their attention on advertisements.

Do not describe sample/sampling technique or ethical issues/guidelines in your answer.

[10]



- (b) Explain **two** strengths of the study you described in part (a).

Do **not** refer to sampling or ethics in your answer.

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[4]

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