



# Cambridge International AS & A Level

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## PSYCHOLOGY

9990/21

Paper 2 Research Methods

May/June 2026

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. Do **not** use correction fluid or tape.
- 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 'aim' of a study.

.....  
..... [1]

- (b) Describe **one** aim from the study by Saavedra and Silverman (button phobia).

.....  
.....  
.....  
..... [2]

- 2 In the study by Dement and Kleitman (sleep and dreams), an EEG (electroencephalogram) was used.

Explain why an EEG was used.

.....  
.....  
.....  
.....  
.....  
..... [3]



3 From the study by Pozzulo et al. (line-ups):

(a) State **one** similarity between the sample of adults and the sample of children.

.....  
..... [1]

(b) Suggest **one** other way that the samples should have been similar. Justify your answer in relation to the study by Pozzulo et al.

.....  
.....  
.....  
..... [2]

4 (a) Define 'ecological validity'.

.....  
..... [1]

(b) Explain **two** ways that the study by Perry et al. (personal space) had low ecological validity.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [4]





- replacement
- species.

[6]

[6]



- 6 Petra thinks that people who laugh more are more helpful. She decides to conduct a correlational study to investigate whether there is a relationship between these two variables.

(a) Petra needs to measure laughter.

(i) Suggest **two** ways that Petra could measure laughter.

.....

.....

.....

..... [2]

(ii) For **one** of the ways you suggested in 6(a)(i):

Explain **one** advantage of this way compared to your other suggestion.

.....

.....

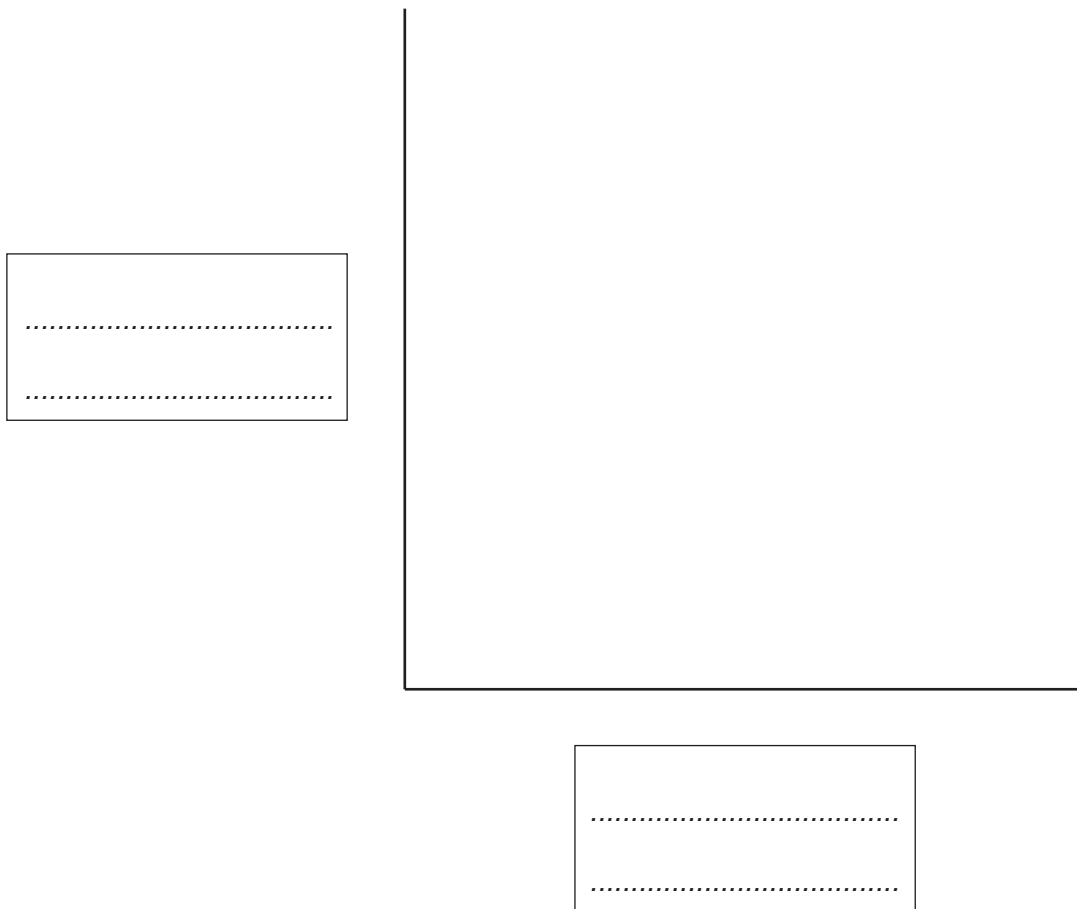
.....

..... [2]



(b) The results show that there is a positive correlation between laughter and helpfulness.

(i) Sketch a graph to show these results. You **must** label the axes.



[2]

(ii) Petra's colleague says that young people laugh more than old people and young people are also more helpful. This is not the only explanation for the positive correlation between laughter and helpfulness.

Suggest **two** other explanations for this positive correlation.

.....

.....

.....

..... [2]



7 A researcher is conducting a case study of a teenager, Jilbert, whose doodling helps him to concentrate in lessons. The researcher will study Jilbert's emotions, behaviour and thoughts.

(a) The researcher plans to give Jilbert a questionnaire to complete. Suggest **three** open questions that could be included, **one** to investigate each of Jilbert's:

- emotions .....  
.....
- behaviour .....  
.....
- thoughts. ....  
.....

[3]

(b) The researcher plans to interview Jilbert's teacher about his behaviour. Suggest **two** closed questions that could be used.

- question 1 .....  
.....  
.....  
.....
- question 2 .....  
.....  
.....  
.....

[4]





(c) Suggest **one** reason why the information obtained in this study may **not** be valid.

.....

.....

.....

..... [2]

(d) Suggest **one** ethical problem with this study.

.....

.....

.....

..... [2]

8 Nolan is planning a longitudinal study. He aims to investigate whether there are changes in theory of mind during late adolescence and early adulthood.

(a) Nolan will use a volunteer sample of 17-year-olds and study them until they are 27 years old.

(i) Outline what is meant by a 'volunteer sample'.

.....

..... [1]

(ii) Suggest **one** way that Nolan could recruit a volunteer sample for his study.

.....

.....

.....

..... [2]



(b) Nolan will need to recontact his participants for retesting during the study. However, he knows that he may lose contact with some participants.

(i) Suggest **one** way that Nolan could recontact his participants to retest them. Justify your suggestion.

.....

.....

.....

..... [2]

(ii) Explain **one** reason why being unable to recontact participants could affect the results of Nolan's study.

.....

.....

.....

..... [2]





Answer **all** questions.

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

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..... [10]

(b) (i) Explain **one** ethical problem that could arise in the study you have described in **9(a)**.

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

.....

.....

.....

..... [2]

(ii) Explain how the ethical problem you described in **9(b)(i)** could be reduced.

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

.....

.....

.....

..... [2]





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