Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

1832365871

PSYCHOLOGY **9990/22**

Paper 2 Research Methods **October/November 2020**

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. Blank pages are indicated.

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Section A

Answer **all** questions in this section.

1 In the study by Saavedra and Silverman (button phobia), the results were the effect of the therapy sessions on button manipulation and on severity rating of distress. These are shown in Fig. 1.1 and Fig. 1.2.

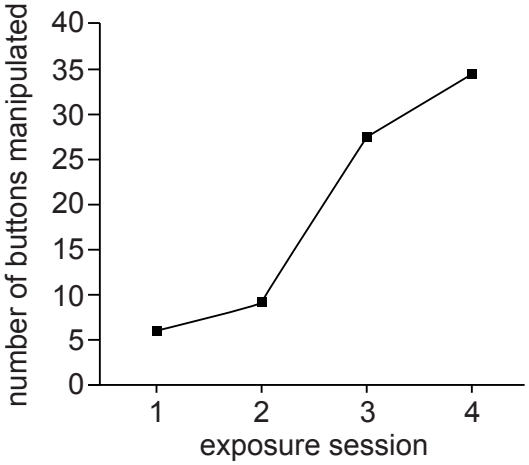


Fig. 1.1

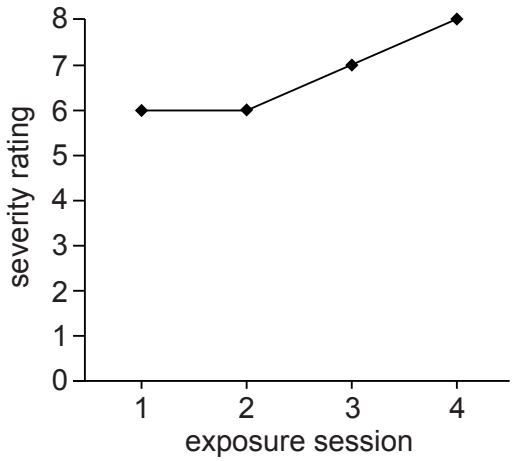


Fig. 1.2

Explain **one** conclusion from the results on each graph. You **must** refer to the results in each conclusion.

Fig. 1.1 .....

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Fig. 1.2 .....

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..... [4]

2 From the study by Laney et al. (false memory):

(a) State why a false memory about liking asparagus would be more ethical than a false memory created using filmed events like car crashes and thefts.

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..... [1]

(b) Explain **one** way in which the study by Laney et al. was **not** ethical.

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..... [2]

3 Libby is planning a case study of a boy with autism to investigate his social interactions.

(a) Explain how Libby could use **two** different techniques to collect data in her case study.

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2 .....

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..... [4]

(b) For **one** of the techniques you explained in **3(a)**:

Suggest **one** problem with using this technique in this study. Do **not** refer to generalisability in your answer.

Technique: .....

Problem: .....

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..... [2]

4 In the study by Canli et al. (brain scans and emotions), the dependent variable of emotional arousal was measured by the participants pressing buttons 0, 1, 2 or 3.

Suggest why it was necessary for the participants to press buttons rather than speaking or writing.

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..... [1]

5 In a study about phobias, researchers have identified two problems.

(a) One problem is that they cannot be sure that they are studying phobias rather than just dislikes. For example, people may refuse to eat a food they claimed to have a phobia of simply because they don't like it.

Explain whether this is a problem of validity or reliability.

Validity or reliability: .....

Explanation: .....

..... [1]

(b) Another problem is that they cannot be sure that they are measuring phobias consistently. For example, the researchers may interpret the participants' written comments differently.

Explain whether this is a problem of validity or reliability.

Validity or reliability: .....

Explanation: .....

..... [1]

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6 Describe different types of hypothesis in research, using any examples.

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Section B

Answer **all** questions in this section.

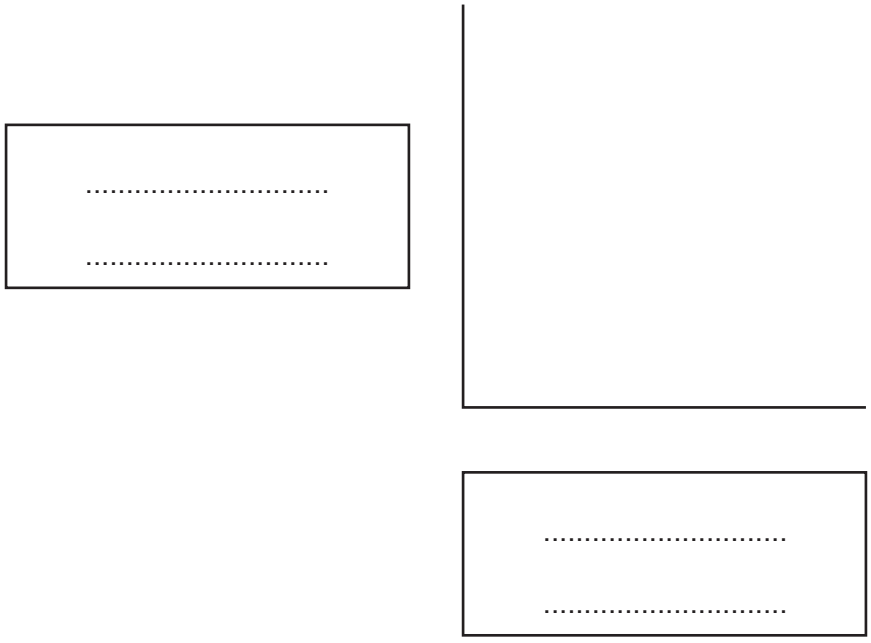
7 Claus is investigating whether there is a correlation between happiness and exercise.

(a) **(i)** Outline what the results would show if Claus found a negative correlation.

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..... [1]

(ii) Sketch a graph, using the axes below, to show what the pattern of results would look like if Claus found a negative correlation. You **must** label the axes.



[3]

(b) Explain why Claus cannot conclude that exercise causes unhappiness.

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..... [2]

(c) Explain why it was useful for Claus to conduct a correlational study before using another method to investigate factors affecting happiness.

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..... [2]

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8 Duncan is conducting an experiment to test whether watching videos of natural scenes or city scenes is better at helping stressed people to relax. Half of the participants watch the natural scenes first and the city scenes one week later. The other half of the participants watch the city scenes first and the natural scenes one week later.

(a) Identify Duncan's experimental design. Include a reason for your answer.

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(b) Explain why it is an advantage that the participants watch the scenes in different orders.

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..... [2]

(c) Duncan obtains his sample from the student population at his university, who all live in the local city.

Suggest **one** disadvantage of taking a sample from this location for this study.

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..... [2]

(d) In order to ensure that his participants are stressed before watching the videos, Duncan could scare them but this would be unethical. He must stress them in an ethical way. He decides to do this by raising their arousal level.

Describe **one** ethical way that Duncan could stress his participants by raising their arousal level.

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..... [2]

9 Lydia is planning to interview students about how they learn a new language.

(a) Suggest **one** open question that Lydia could ask during her interviews.

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..... [1]

(b) Suggest **one** disadvantage of using open questions in this study.

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..... [2]

(c) Lydia's first language is English. Her participants speak a variety of different first languages, although all can understand English.

Explain why the variety of first languages spoken by the participants could still be a problem in Lydia's study.

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..... [2]

(d) Suggest what type of interview Lydia should conduct in this study. Include a reason for your answer.

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Section C

Answer **all** questions in this section.

10 Anisha and Megane are supervisors who walk around the school during lunchtime to watch the children in the building, playground and lunch hall. They have been asked by Sue, who is head of the psychology department, to be observers in a study on helpful behaviour in the school.

(a) Describe how Sue could conduct a participant observation of helping behaviour in school, using Anisha and Megane to assist her.

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(b) Identify **one** practical weakness/limitation with the procedure you have described in your answer to part **(a)** and suggest how your study might be done differently to overcome the problem.

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

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..... [4]

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