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9990/21

May/June 2024

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

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[Turn over

Section A

Answer **all** questions.

- 1 (a)** Identify the sampling technique used in the study by Milgram (obedience).

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

- (b)** Outline how the sample was obtained in this study.

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..... [2]

- 2** Explain what is meant by the ethical guideline of 'species' in relation to animals in psychological research.

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..... [2]

- 3** Dement and Kleitman (sleep and dreams) asked participants to record their dream narratives. The words in each narrative were counted.

- (a)** Identify the type of data provided by counting the words in the narratives. Justify your answer.

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

- (b)** Explain **one** strength of collecting this type of data in this study.

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

- 4** Glyn is conducting an experiment with an independent measures design. He is testing the effect of background noise on social learning (learning by imitation). Glyn shows each participant how to build a tower from blocks. Each participant then builds this tower, with either singing or silence in the background.

(a) Explain what is meant by an 'independent measures design', including an example from Glyn's study.

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..... [2]

(b) Explain what is meant by a 'control condition', including an example from Glyn's study.

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..... [2]

(c) Suggest how Glyn could measure social learning (learning by imitation) in his study.

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..... [2]

5 In the study by Pozzulo et al. (line-ups), children were interviewed.

- (a) Explain why it was necessary to gain consent from both the children and the children's parents/guardians.

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.....

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..... [3]

- (b) To test correct identification of the cartoon characters, many 'foils' were needed that were similar to the target cartoons.

Explain **one** way in which the foils needed to be similar to the targets.

.....

..... [1]

- (c) Fig. 5.1 shows some of the data from this study. Use this graph to produce a table of the data. You **must** write full headings on your table.

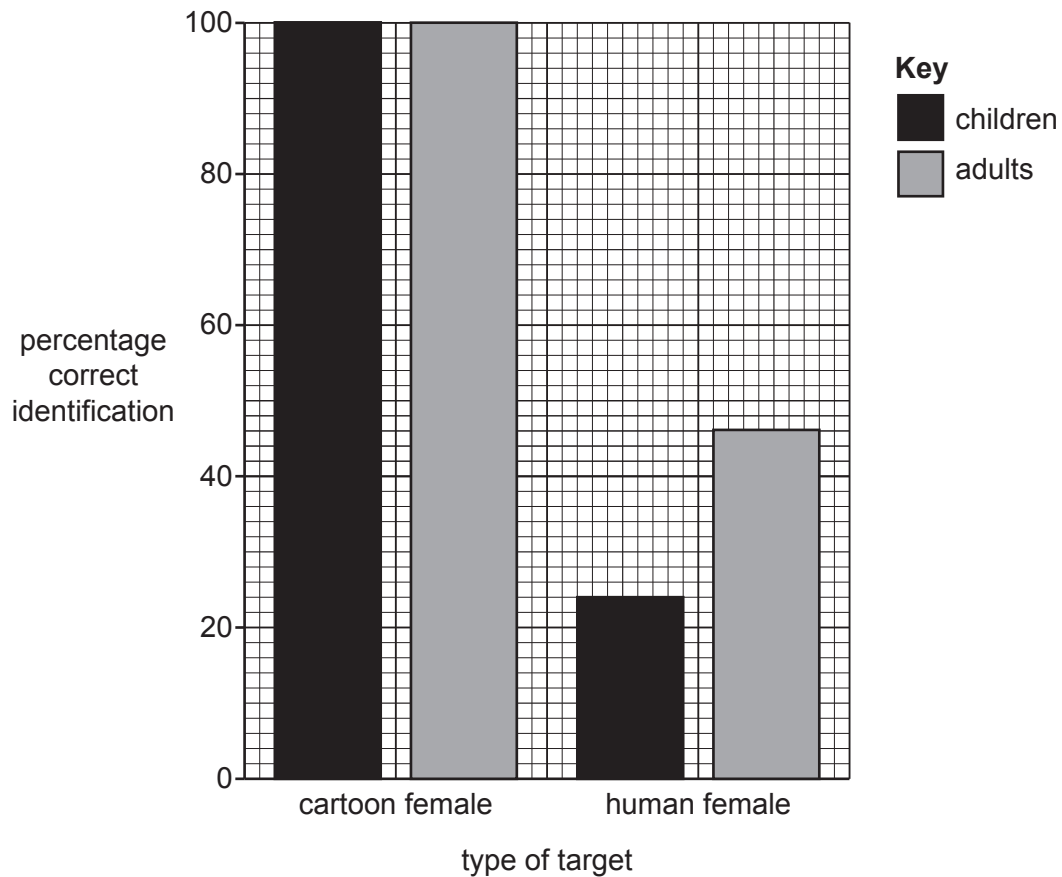


Fig. 5.1

**Results from the study by Pozzulo et al.
for the correct identification of target individuals in a line-up.**

[4]

6 Describe participant observation and non-participant observation, using any example(s).

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..... [6]

- 7 Ranya is collecting data about study habits after school. She is asking students in her school two questions:

- Question 1 How long do you spend studying per week after school?
- Question 2 Which subject do you prefer to study after school: arts, languages, maths or science?

- (a) Ranya will use two different measures of central tendency on her data, the mode and the mean.

Explain which measure of central tendency would be **most** appropriate for each of Ranya's questions.

Measure of central tendency for Question 1

Explanation

.....

Measure of central tendency for Question 2

Explanation

.....

[2]

- (b) (i) Explain how Ranya would calculate the range of hours spent studying per week after school.

.....

..... [1]

- (ii) Ranya's colleague says she should use the standard deviation instead of the range for the data from Question 1.

Explain why the standard deviation would provide more information than the range.

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.....

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..... [2]

- (c) Ranya will use a non-directional (two-tailed) hypothesis about study habits.

Explain which hypothesis Ranya will use:

X Students who prefer maths will spend more time studying.

Y There will be a difference in the time spent studying by students who prefer maths and students who do not prefer maths.

Hypothesis X or Y:

.....

..... [1]

- 8 Simon is conducting a study about children learning to read. He is comparing how well they understand a story when reading from a book which has pages with images that are either:
- coloured shapes
 - pictures that are not related to the text
 - pictures that are related to the text.

(a) Identify the independent variable (IV) in Simon's study.

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

(b) Identify the dependent variable (DV) in Simon's study.

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

(c) All the pictures and shapes are brightly coloured.

Explain **one** reason why this is important.

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

- 9 Heng is conducting a study to investigate the job satisfaction of male and female employees at a factory.

She has identified two problems with uncontrolled variables. One is a situational variable and the other is a participant variable:

- variable X: female employees have more responsibilities at home
- variable Y: the factory promotes male employees faster than females.

- (a) Explain which **one** of these problems is a participant variable.

.....
 [1]

- (b) Explain which **one** of these problems is a situational variable.

.....
 [1]

- (c) (i) Suggest how Heng could limit the problem of **one** of these uncontrolled variables.

.....

 [2]

- (ii) Trying to limit a problem in a study can create further issues.

Suggest **one** issue that your answer to part (c)(i) could create for Heng.

.....

 [2]

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..... [10]

- (b) (i) Explain how **one** feature of the procedure you described in part (a) helps to make the study valid.

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

.....

.....

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..... [2]

- (ii) Suggest **one** way to improve the reliability of the procedure you described in part (a). Justify your answer.

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

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..... [2]

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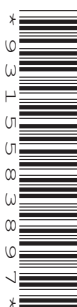
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**PSYCHOLOGY****9990/22**

Paper 2 Research Methods

May/June 2024**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.
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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) (i) State the **two** main features of a case study.

1
.....

2
.....

[2]

(ii) Explain why the study by Saavedra and Silverman (button phobia) was a case study, in relation to these **two** main features.

1
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2
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[2]

(b) Explain **one** way to improve validity in a case study.

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..... [3]

DO NOT WRITE IN THIS MARGIN

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- 2 Kanav wanted to recruit participants from his town for his study. He put an advertisement into the window of every shop in his town and used all the people who responded as his sample.

(a) (i) Explain the sampling technique Kanav used.

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.....

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..... [2]

(ii) Suggest **one** weakness of using this sampling technique in Kanav's study.

.....

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..... [2]

- 3 (a) A study has the hypothesis 'Four-year-old children make more language mistakes than eight-year-old children.'

State whether this hypothesis is a:

- directional hypothesis
- non-directional hypothesis
- null hypothesis.

..... [1]

(b) Explain the reason for your choice in part (a).

.....

.....

.....

..... [2]





- 4 The study by Hassett et al. (monkey toy preferences) used animals.

Outline **two** named ethical guidelines in relation to the use of animals in this study.

Ethical guideline 1

Outline

.....

.....

Ethical guideline 2

Outline

.....

.....

[4]

- 5 In the study by Baron-Cohen et al. (eyes test), a control task was used to be certain that the AS/HFA participants could use information from pictures of eyes to make simple judgements.

(a) Identify this control task.

.....

..... [1]

(b) Outline what participants were required to do in this control task.

.....

..... [1]





11

[6]



7 Chyou is conducting a self-report about students' subject choices. Four of her questions are:

- A Describe how much you like maths.
- B How much do you enjoy studying science?
0 = do not enjoy it at all, 5 = enjoy it a lot.
- C "I have always known what subjects I want to study."
To what extent do you agree with this statement?
strongly agree / agree / neither agree nor disagree / disagree / strongly disagree.
- D Write about whether you would like to be a doctor.

(a) Identify **one** closed question from A to D.

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

(b) Identify **one** open question from A to D.

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

(c) Chyou has written two questions to investigate the process of students choosing their subjects.

- E How old were you when you decided you did or did not like science?
- F Describe how you felt when you made your final decision about subject choices.

(i) State **one** strength of question E.

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

(ii) State **one** strength of question F.

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

(d) Suggest **two** questions Chyou could ask to investigate factors affecting students' subject choices.

1
.....
2
..... [2]



- 8 Daku is observing the obedience of boys and girls to teachers and older pupils when they are waiting for their lunch. Fig. 8.1 is a graph of Daku's results.

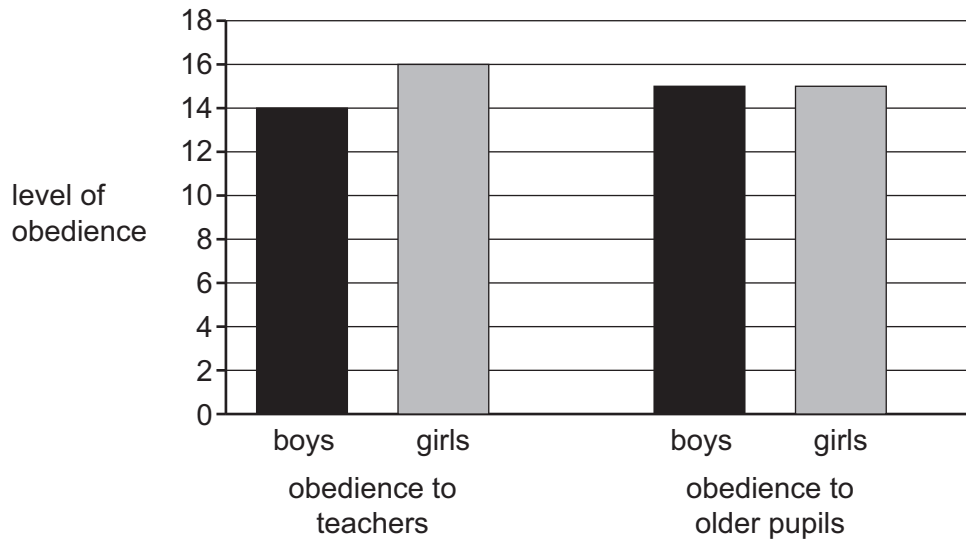


Fig. 8.1

- (a) Daku's conclusion is that girls are more obedient than boys. Daku's colleague, Jedda, has looked at Daku's graph and disagrees with Daku's conclusion.

Explain **one** reason why Daku's conclusion from his graph may be incorrect.

Do **not** refer to sample size in your answer.

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..... [2]

- (b) Jedda suggests that Daku needs a bigger sample.

Explain **one** benefit of increasing the sample size in this study.

.....

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.....

..... [2]





(c) Daku has identified a problem caused by an uncontrolled variable. The boys had to wait longer for their lunch than the girls.

(i) Explain whether this problem is caused by a situational variable or a participant variable.

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

(ii) Explain how this problem would have affected Daku's results.

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





- 9 Carol is investigating how music in a sports centre affects the amount that people exercise. On each visit she listens to the music that is playing. She measures the music by counting the number of musical beats per minute (faster music has more musical beats per minute than slower music).

(a) Suggest **one** problem with Carol's measure of the music.

.....

.....

.....

..... [2]

- (b) Carol records the time each person in the sports centre starts and stops exercising. All of the sports centre members have given permission for this to happen.

Explain **two** reasons why Carol obtained permission to gather her data, in relation to ethical guidelines.

1

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2

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..... [4]

- (c) Explain **one** reason why it is important that Carol visits the sports centre at different times of day.

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..... [2]





Section B

Answer **all** questions.

- 10** Chloë is studying behaviour in the workplace. She wants to investigate how people behave during mealtimes at work. A range of food is available to the workers, which can be eaten in different ways. The workers also vary in how sociable they are during meals. Chloë intends to produce a detailed description of the variety of behaviours during meals at work.
- (a)** Describe how Chloë could conduct an observational study using participant observation to record the variety of behaviours during meals at work.

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

[illegible]



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..... [10]

- (b) (i) Describe **one** practical/methodological strength of the procedure you have described in your answer to part (a).

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

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.....

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..... [2]

- (ii) Describe **one** practical/methodological weakness of the procedure you have described in your answer to part (a).

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

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..... [2]





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9990/23

May/June 2024

1 hour 30 minutes

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[Turn over

Section A

Answer **all** questions.

- 1** Explain what is meant by a covert observation, using any example.

.....

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..... [2]

- 2** The results from the study by Andrade (doodling) included the following data about the shading of shapes by participants in the doodling group:
- the mean number per participant was 36.3
 - the range was 3–110.

Outline what these **two** results show about doodling by this group of participants.

.....

.....

.....

..... [2]

- 3** Describe how **one** feature of the study by Milgram (obedience) helped to make the study valid.

.....

.....

.....

..... [2]

- 4 One group of participants in the study by Hölzel et al. (mindfulness and brain scans) was a sample of 16 right-handed adults: 6 males and 10 females.

Explain **two** reasons why this sample may **not** be representative.

1

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[4]

- 5 Memory research is often conducted using eyewitnesses who have witnessed a real crime. Alternatively, researchers can use a simulated crime in a laboratory and ask participants what they remember.

(a) One strength of using a simulated crime in a laboratory is that it can improve objectivity.

Outline what is meant by the term 'objectivity', including an example about eyewitnesses.

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..... [2]

(b) Describe how **one** feature of the study by Pozzulo et al. (line-ups) helped to make the study objective.

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..... [2]

6 Describe the following experimental designs, using any example(s):

- matched pairs design
- repeated measures design.

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..... [6]

- 7 Yashal is planning an experiment about the effect music has on students doing their homework. She is choosing the conditions she will use.

(a) Outline what is meant by the term 'experimental condition'.

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

(b) (i) Outline what is meant by the term 'control condition'.

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

(ii) Suggest a control condition that Yashal could use in her experiment.

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

(c) Yashal is planning to use students working at home as participants.

Explain the type of experiment Yashal would be conducting.

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

- 8 A parrot rescue centre has some new parrots which need to learn to enter a cage. Their trainer is planning a procedure using operant conditioning to teach the parrots to enter the cage.

(a) Suggest **one** way that the parrots could be taught to enter the cage.

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.....

..... [3]

(b) The success of the procedure can be measured by counting the number of days it takes each parrot to learn to enter the cage.

(i) Suggest **two** practical problems with this measurement of success.

1

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..... [4]

(ii) For **one** of the problems you suggested in part (b)(i):

Suggest **one** way this problem could be solved.

Problem 1 or 2:

.....

.....

.....

..... [2]

(c) There are many members of staff at the rescue centre. The trainer cannot decide whether the parrots will learn better if the other staff are present or absent while the parrots are being trained.

- (i) Explain **one** reason why the parrots may learn better if the other staff are present during the parrots' training.

.....

.....

.....

..... [2]

- (ii) Explain **one** reason why the parrots may learn better if the other staff are absent during the parrots' training.

.....

.....

.....

..... [2]

- 9 Faiza is planning to investigate the effect of air pollution on emotion. She had planned to conduct a laboratory experiment, but rejected this for ethical reasons.

(a) Suggest **one** reason why conducting a laboratory experiment for Faiza's investigation could have been unethical.

.....

.....

.....

..... [2]

(b) Faiza decides to use geography students as participants. They are visiting a rural environment and a polluted city as part of their geography course. She will collect data in both places.

Explain **one** reason why Faiza's new plan is more ethical.

.....

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..... [2]

(c) Faiza is concerned about uncontrolled variables in her study.

Suggest how **two** uncontrolled variables could affect the measurement of emotion.

1

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[4]

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..... [10]

- (b) (i) Describe **one** practical/methodological strength of the procedure you have described in your answer to part (a).

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

.....

.....

.....

..... [2]

- (ii) Describe one practical/methodological weakness of the procedure you have described in your answer to part (a).

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

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