

**AS LEVEL**

**Examiners' report**

# **PSYCHOLOGY**

**H167**

For first teaching in 2015

**H167/01 Summer 2023 series**

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## Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

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## Paper 1 series overview

This is the first of the two examined components for the OCR AS Psychology qualification. This is the eighth examination of the reformed Psychology AS specification, and overall the standard of responses were good. There was a wide range of responses, suggesting that the paper differentiated fairly.

This paper was accessible with the majority of candidates attempting all questions. Candidates who did well on the paper were distinguished by their extended, detailed responses that focused more specifically on the question rubric and, where appropriate, contextualised their answer to stem scenarios provided on the question paper.

The minority of candidates confused some psychological terminology such as the experimental design with the experimental method, however the majority of candidates had a good grasp of the terminology used in research methods. Candidates often confused the final question on the evaluation of their practical report and put a general discussion point relating to their conclusion as opposed to an evaluation point which could be included in the discussion section.

It is important to make sure that candidates have had practice in the design and implementation of their own practical activities (including an analysis of the data collected and conclusions reached from this). Candidates should be encouraged to consider other variations of the method they have used in order to consolidate their knowledge, for example of different types of experiments/self reports/observations. This should additionally reinforce their knowledge and understanding of research methods in general as well as some of the specific terms and concepts they could be assessed on. This will also help them to comment on how conducting their own research has helped in the planning of the novel research presented in the examination paper. Research methods can also be reinforced through the delivery of the Core Studies component, which will help students apply their understanding of research methods. Finally, candidates should be encouraged to use examples in order to illustrate key points that they make. This will help them to convey their understanding better.

### Assessment for learning



Centres should encourage candidates to create a glossary of key terms and concepts for research methods and should promote using these terms in their responses.

Key term assessment check points are encouraged.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
<ul style="list-style-type: none"> <li>• demonstrated good knowledge and understanding of key terms and concepts</li> <li>• gave extended and detailed responses focusing specifically on the question</li> <li>• contextualised their answers to the stem scenarios presented on the question paper</li> <li>• gave developed conclusions about research rather than simply stating findings.</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrated basic knowledge and understanding of key terms and concepts</li> <li>• gave basic or limited detail in their responses</li> <li>• missed out context in their answers so that their response did not relate directly to the stem scenarios presented on the question paper</li> <li>• identified findings rather than developing conclusions.</li> </ul>

## Section A overview

There was good knowledge and understanding shown across the range of questions asked. The occasional poorly answered question suggested that preparation was not complete across the whole specification. The minority of candidates would benefit by reviewing their responses again before the end of the exam as responses to extended questions in other sections might help trigger recognition and recall.

### Multiple Choice Questions

Centres should remind candidates that if their response is unclear, the examiner may be unable to see the option they have chosen. The minority of candidates changed their mind on their response and wrote over their original response. This can make it difficult for an examiner to decipher the candidates final response. If a candidate changes their mind, they can write their response to the right of the answer space or on the additional paper provided.

### Question 1

1 Which of these shows the ratio 42:6 in its simplest form?

- A 5:1
- B 6:1
- C 7:1
- D 21:3

Your answer

[1]

The majority of candidates responded correctly.

### Question 2

2 What is the range for this set of scores? 52, 63, 48, 37, 24

- A 24
- B 28
- C 39
- D 52

Your answer

[1]

The majority of candidates responded correctly.

### Question 3

3 In an experiment what is the independent variable?

- A the variable that is manipulated by the researcher
- B the variable that is mapped by the researcher
- C the variable that is measured by the researcher
- D the variable that is moved by the researcher

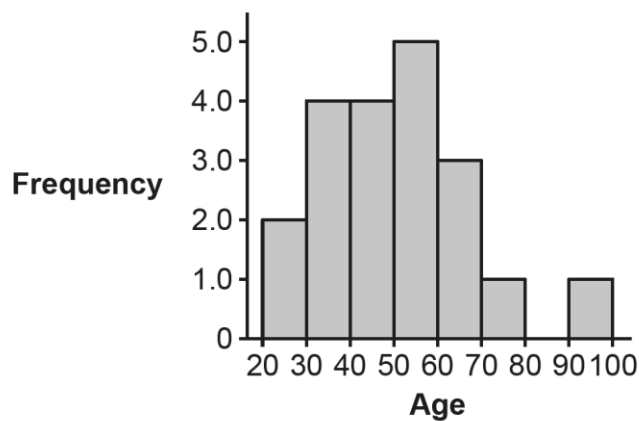
Your answer

[1]

The majority of candidates responded correctly.

### Question 4

4 What type of graph is this?



- A bar chart
- B histogram
- C line graph
- D pie chart

Your answer

[1]

The minority of candidates found it difficult to identify this graph as a histogram.

#### Misconception



There was a common misconception here that this is a bar chart rather than a histogram.

## Question 5

5 What does the alternative hypothesis in a correlation study state?

- A There will be a difference between two variables.
- B There will be a relationship between two variables.
- C There will not be a difference between two variables.
- D There will not be a relationship between two variables.

Your answer

[1]

The majority of candidates responded correctly. A minority of students stated 'difference' (option A) rather than 'relationship' (option B).

### Assessment for learning



Candidates could complete an activity on hypotheses at the end of the teaching of research methods where they are required to identify which hypotheses are suitable for an experiment and which are suitable for a correlation. To extend this, candidates could be required to write a hypothesis for an experiment and to write a hypothesis for a correlation. If this is done as a joint activity rather than only when teaching these methods, candidates will be able to see the difference between the two.

## Question 6

6 Which of the following means that 'a is proportional to b'?

- A  $a < b$
- B  $a > b$
- C  $a \sim b$
- D  $a \propto b$

Your answer

[1]

The majority of candidates responded correctly however a minority of students chose option C.



## Question 7

- 7 Which of the following best describes the sampling technique used in Grant et al.'s (1998) study on context-dependent memory?
- A opportunity sampling
  - B random sampling
  - C self-selected sampling
  - D snowball sampling

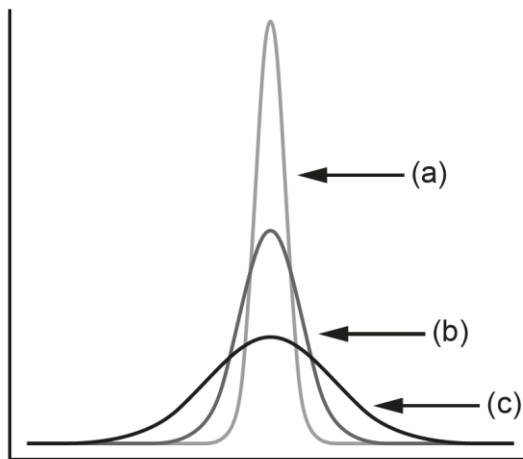
Your answer

[1]

The majority of candidates gave many incorrect responses to this question. Candidates should be aware that research methods knowledge of Core Studies can be assessed in the multiple choice section of this paper.

## Question 8

- 8 Which of these distributions shows the largest variance?



- A distribution (a)
- B distribution (b)
- C distribution (c)
- D they are all the same

Your answer

[1]

The majority of candidates responded correctly with the minority of candidates incorrectly choosing option A.

## Question 9

- 9 In a study about phobias, which of the following would produce interval level data?
- A asking people to put in order, from 'least frightening' to 'most frightening', pictures of five different spiders
  - B classifying people as 'not frightened', 'frightened' or 'very frightened'
  - C recording heart rate whilst being shown pictures of spiders
  - D responses to the open question asking 'What makes you feel frightened?'

Your answer

[1]

Some candidates were unable to give a correct response to this question. Probably because more focus was given to identifying ordinal and nominal data.

## Question 10

- 10 Which check, prior to research publication, conducts a review in an ethical and accountable manner?
- A peer review
  - B people review
  - C population review
  - D practical review

Your answer

[1]

The majority of candidates responded correctly.

## Question 11

**11** In Milgram's study of obedience, what kind of data were the descriptions of the signs of anxiety shown by the participants?

- A** interval
- B** qualitative
- C** quantitative
- D** secondary

Your answer

[1]

The majority of candidates responded correctly.

## Question 12

**12** Which of these best describes the research method(s) used in Loftus and Palmer's (1974) study of eyewitness testimony?

- A** lab experiment
- B** lab experiment and correlation
- C** lab experiment and observation
- D** lab experiment and self-report

Your answer

[1]

The minority candidates were able to identify the correct response but many were incorrect.

### Question 13

13 Which of these measures of dispersion only uses the highest and lowest values in a data set for its calculation?

- A range
- B standard deviation
- C variance
- D standard deviation and variance

Your answer

[1]

The majority of candidates responded correctly.

### Question 14

14 What type of sampling produces a sample that is most representative of the population?

- A opportunity
- B random
- C self-selected
- D snowball

Your answer

[1]

The majority of candidates answered this correctly.

## Question 15

15 Which measure of central tendency involves ranking the data first?

- A mean
- B median
- C mode
- D none of them

Your answer

[1]

The majority of candidates responded correctly.



## Question 17\*

**17\*** Explain how you would conduct a study using the laboratory experimental method to investigate if people become more helpful after listening to music with prosocial lyrics. Justify your decisions as part of your explanation. You must refer to:

- the experimental design you would use
- how you would operationalise the dependent variable (DV) in a way that would produce quantitative data
- one ethical consideration you would take into account.

You should use your own experience of practical activities to inform your response.

**[12]**

This question gained a variety of responses, although very few candidates achieved the highest band marks. The best responses were characterised by taking each of the three required features (RF) in turn. Firstly, demonstrating knowledge of the feature itself and an understanding of what was involved in terms of addressing it for the research presented. Candidates would then justify the decision made regarding how to address it before finally drawing on their own experiences of conducting research and explicitly outlining how this informed the planned study presented. All three of the required features (RF) needed to be discussed in context to obtain marks in the highest band.

The majority of candidates achieved marks within the limited band due to responses lacking detail, context or justification. Some candidates wrote more about their own practical activity than they did about the explanation of the study that was being conducted based on the stem. Candidates need to perform well on the explanation and justification of the required features before marks are given for their reference to their experience of their own practical activity.

RF1: Some candidates confused the use of an experimental design with the experimental method. Those who understood the experimental design and were able to effectively address how this could be done in addition to the allocation of participants to conditions gained the highest marks.

RF2: Most candidates were able to operationalise the dependent variable and suggest how this would gain quantitative data. Candidates generally gave a rating scale to assess helpfulness or a task with detail on how they would measure helpfulness.

RF3: This was the least well answered feature with many candidates simply stating an ethical consideration. Some candidates took their response further by defining the consideration however it was rare for candidates to give a detailed explanation on how this consideration could be addressed.

Exemplar 1

The experimental design is the way in which the participants are used within the experiment. I would use repeated measures design, which is where ppts are used in both the condition that does listen to the pro-social music and then is assessed on how helpful and also the condition where they listen to no music and are assessed on how helpful. I would use repeated measures design as it

This exemplar demonstrates a reasonable in context response to RF1 (experimental design). For this candidate to gain a good in context response they need to explain which condition is completed first for a repeated measures design. The candidate would then go on to justify the use of using this experimental design by giving a strength in context. Before finally using knowledge of their own practical activity to inform their response.

Question 18 (a)

18 (a) Self-selected sampling could be used in this study. Outline how you would use self-selected sampling to obtain participants for this study.

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[3]

Most candidates knew that a researcher would need to advertise the study in order to get volunteers. Some candidates were able to put this in context of the study. Candidates who achieved full marks on this question were clear on how participants were required to volunteer for the research. The minority of candidates confused the sampling method with opportunity sampling.



### Question 18 (b)

(b) Outline **one** weakness of using self-selected sampling to obtain participants for this study.

.....

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.....

..... [3]

Most candidates were able to identify an appropriate weakness of self-selected sampling in context. Some candidates lost marks for not contextualising their response. For those who gained full marks they were able to identify a weakness, elaborate and explain why it was a weakness in context.

### Question 19

19 Outline **two** weaknesses of having quantitative data when trying to investigate whether prosocial lyrics influence how helpful people are.

1 .....

.....

.....

2 .....

.....

.....

[6]

Most candidates were able to outline one weakness of quantitative data but were unable to outline a second weakness without becoming repetitive in their response.

#### Exemplar 2

1 One weakness of having quantitative data is that it lacks rich detail about how or why prosocial lyrics influence how helpful people are. This is as ppts aren't about to give information on how prosocial lyrics make them feel or how or why they feel more helpful after.

2 Another weakness is that results may not be valid as ppts may feel restricted in the questions and options being provided and so may not give accurate, valid or reliable results on if prosocial lyrics make them feel more helpful.

This exemplar demonstrates how candidates can address the question without repetition of their first weakness. The responses identify separate weaknesses, explain why they are a weakness and are in context of the stem given.

### Question 20 (a)

**20 (a)** Suggest **one** open question you could use to obtain additional information in this study.

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

Most candidates answered this correctly and gained 2 marks. For the minority of candidates who lost a mark it was due to lacking context and writing a generic open question.

### Question 20 (b)

**(b)** Outline **one** weakness of using this open question in this study.

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

Many candidates gained 2 marks on this question with some achieving full marks. For those who lost marks it was the lack of detail or context which penalised them. There was a large number of candidates who didn't gain marks on this question due to evaluating the self-report method in general and gave an evaluation point which could have applied to either an open or a closed question.



## Section C overview

A good understanding was shown by many candidates of bar charts, calculating percentages and the requirements of using a Chi-square inferential statistical test. This section of the examination has the most questions that were not attempted by candidates due to the lack of understanding of how degrees of freedom are used to find a critical value and the reason for conducting inferential statistical tests to find out the probability of results being due to chance.

### Question 22

#### Driving me crazy!

Driving is something that many people do on a regular basis, and there are many things that motorists do that cause others to become frustrated and even angry. To investigate this, a psychologist used the self-report method to find out more about what one thing people find most annoying about the behaviour of other motorists. Below is a table displaying the data collected from the 300 people who took part in the study.

**Table displaying the number of responses in each category when participants were asked to identify which one of the following behaviours they find most annoying in other motorists**

	<b>Driving too close to another car</b>	<b>Driving too fast</b>	<b>Driving too slow</b>	<b>Overtaking</b>	<b>Inappropriate use of horn</b>	<b>Parking incorrectly</b>
<b>Male participants' responses</b>	23	20	47	18	19	23
<b>Female participants' responses</b>	33	51	12	24	18	12

22 What type of question has been used to produce the data displayed in the table above? Give reasons for your answer.

.....

.....

.....

..... [2]

Most candidates got this answer correct and gained 2 marks. For those who only gained 1 mark, they were unable to provide an appropriate reason for it being a closed question.

### Question 23

23 Outline **two** conclusions that can be made from the data collected in this study.

1 .....

.....

.....

2 .....

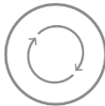
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.....

[4]

This question gained a variety of responses with few candidates accessing the full range of marks. Most candidates were restricted in their marks due to only identifying findings rather than a conclusion.

**Assessment for learning**

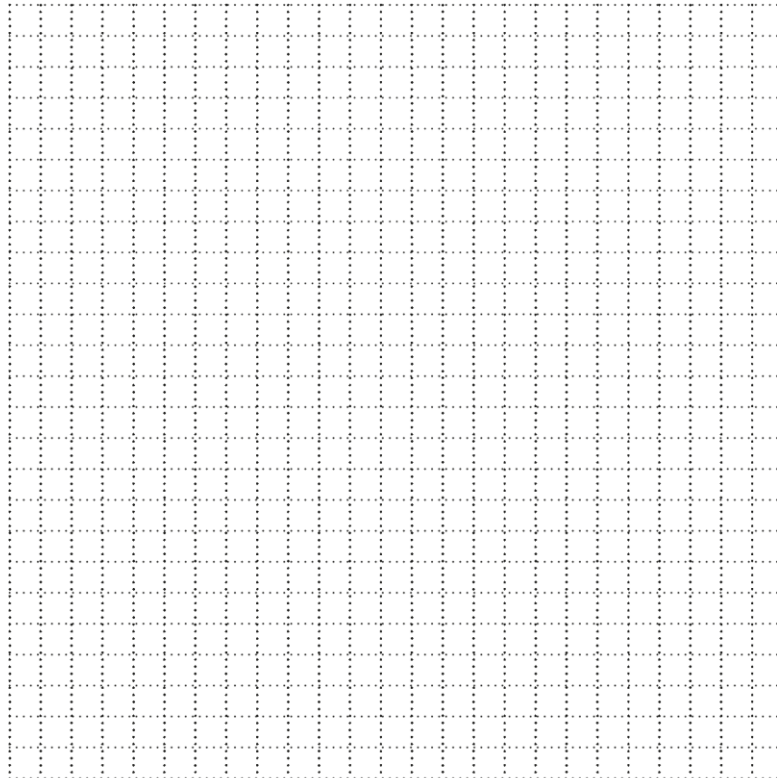


Candidates would benefit from being given opportunities to examine raw data tables and practice extrapolating conclusions that could be drawn from them by looking at the nature of the data and any patterns that can be inferred. These skills can also be illustrated through data collected through practical investigations conducted in preparation for this exam.

The difference in findings and conclusions from the core studies component could be highlighted to assist in demonstrating to candidates how to differentiate between findings and conclusions.

## Question 24

- 24 Draw a fully labelled bar chart displaying the data from the **male participants** who took part in this study.



[4]

Many candidates could draw a bar chart but few accessed full marks due to not providing a title, labelled axes or incorrectly presenting data as a histogram rather than a bar chart.





### Question 26 (b)

- (b) Calculate the 'degrees of freedom' required to check for significance when using the Chi square test to analyse the data collected in this study.

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

Many candidates got this question incorrect or didn't write a response.

### Question 26 (c)

- (c) After it is calculated, how is the 'degrees of freedom' used when checking for significance?

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

Many candidates got this question incorrect or didn't write a response. Some candidates gained 1 mark for reference to finding a critical value. A minority of candidates gained full marks on this question.

### Question 26 (d)

- (d) Outline the meaning of  $p < 0.05$  if it appeared as part of the significance statement when presenting the findings from an inferential statistical test for this study.

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

Many candidates didn't understand this question or didn't attempt it and gained zero marks. Some candidates gained 1 mark and recognised that data would be significant or that the null hypothesis would be rejected. The minority of candidates accessed full marks on this question.

## Question 27

**27** Identify **and** explain **one** evaluation point you could have included in the discussion section of the write-up of any one of your own practical activities.

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.....

..... [4]

There was a mixed response to this question. Many candidates discussed a finding/conclusion rather than an evaluation issue. The candidates who were able to access full marks were able to identify and elaborate on an evaluation point from their own practical activity and explain why it was a strength or weakness.

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