

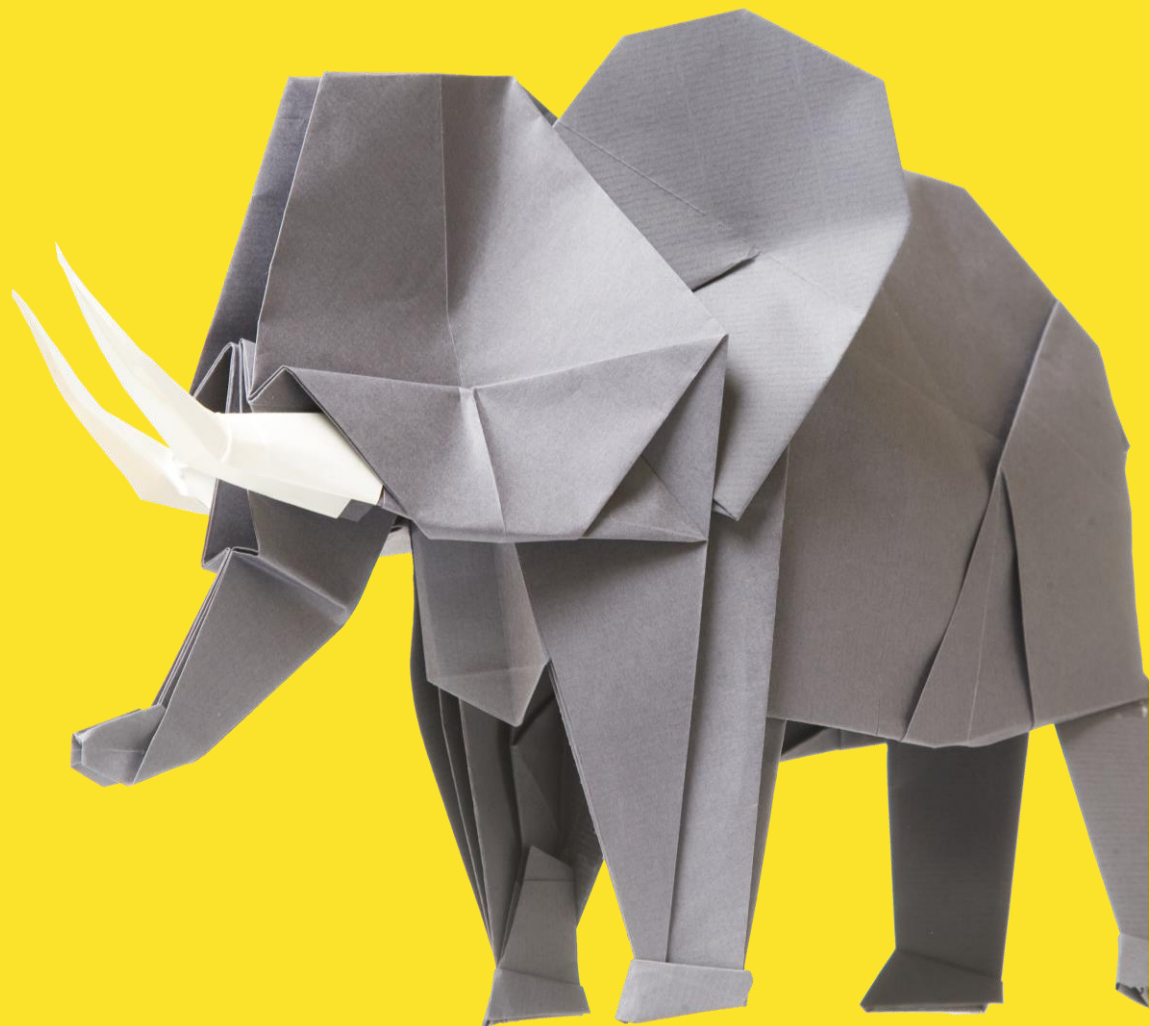


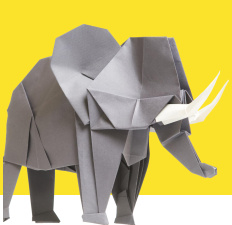
Pearson
Edexcel

GCSE (9-1) Psychology

Paper 2 1PSO/02

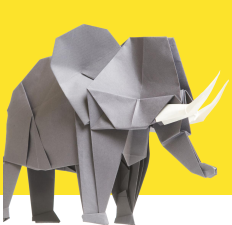
Student exemplar material





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INTRODUCTION

This exemplar booklet has been created using a selection of student responses to the GCSE Psychology Paper 2, Research Methods and Optional Topics, examination questions.

The guidance includes example responses to:

- Topic 11: Research methods – How do you carry out psychological research?

Along with the optional topics of:

- Topic 6: Criminal psychology – Why do people become criminals?
- Topic 9: Sleep and dreaming – Why do you need to sleep and dream?

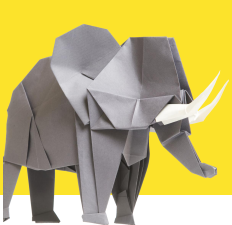
The answers and examiner commentaries in this guide can be used as examples of the application of the mark schemes in the GCSE Psychology assessment.

The 1PS0/02 (Paper 2) assessment consists of a written examination of 1 hour and 20 minutes, which accounts for 45% of the qualification, with a total of 79 marks available on the paper.

The exam paper covers AO1, AO2 and AO3 content through a mixture of question types, demand levels and response structures throughout the exam paper.

Students must:		% in GCSE
AO1	Demonstrate knowledge and understanding of psychological ideas, processes and procedures	35
AO2	Apply knowledge and understanding of psychological ideas, processes and procedures	35
AO3	Analyse and evaluate psychological information, ideas, processes and procedures to make judgements and draw conclusions	30
Total		100%

Paper	Assessment Objectives			Total for all Assessment Objectives
	AO1 %	AO2 %	AO3 %	
Paper 1	20.3	14.6	20.3	55%
Paper 2	14.2	20.3	10.1	45%
Total for GCSE	35%	35%	30%	100%



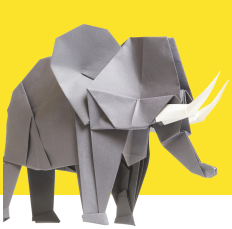
The structure of the 1PSO/02 question paper is as follows:

Paper 2 (Paper code: 1PSO/02)
Written examination: 1 hour and 20 minutes 45% of the qualification 79 marks
Content overview Topics 6 to 10 are optional; students must study two of them. Topic 11 is compulsory. <ul style="list-style-type: none">• Topic 6: Criminal psychology – Why do people become criminals?• Topic 7: The self – What makes you who you are?• Topic 8: Perception – How do you interpret the world around you?• Topic 9: Sleep and dreaming – Why do you need to sleep and dream?• Topic 10: Language, thought and communication – How do you communicate with others?• Topic 11: Research methods – How do you carry out psychological research?
Assessment overview Students must answer: All questions from Section A. All questions from two sections – B to F. Section A: Research methods – How do you carry out psychological research? This section will focus primarily on Topic 11: Research methods – How do you carry out psychological research?, although it can draw on material from Topics 1 to 5 from Paper 1. It will contain question types that include calculations, multiple-choice, short-open and open-response questions, and one extended open-response question. Sections B to F: Optional topics Each of these sections covers one of the optional Topics 6 to 10. These sections will include multiple-choice, short-open and open-response questions, and one extended open-response question.

Calculators may be used in the examination, information on the use of calculators during the examination for this qualification can be found in Appendix 2: Calculators within our Psychology Specification.

Sample assessment materials

Sample papers and mark schemes can be found in 'Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Psychology (1PSO) Sample Assessment Materials (Pearson Education Limited, 2017)'



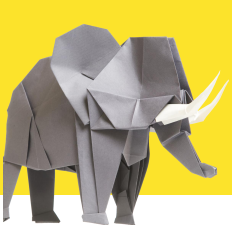
Command words

Page 39: Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Psychology Specification

Examination questions will use the command words outlined in the specification, and the example candidate responses in this guidance highlight a range of these command words.

The table below lists the command words used in the external assessments.

Command verb	Definition
Assess	Give careful consideration to all the factors or events that apply, and identify which are the most important or relevant. Make a judgement on the importance of something, and come to a conclusion where needed.
Calculate	Obtain a numerical answer, showing relevant working. If the answer has a unit, this must be included.
Compare	Looking for the similarities and differences of two (or more) things. This should not require the drawing of a conclusion. The answer must relate to both (or all) things mentioned in the question. The answer must include at least one similarity and one difference.
Complete	To fill in/write all the details asked for.
Define	Provide a definition of something.
Describe	To give an account of something. Statements in the response need to be developed as they are often linked but do not need to include a justification or reason.
Draw	Produce an output, either by freehand or using a ruler (e.g. graph).
Evaluate	Review information then bring it together to form a conclusion, drawing on evidence including strengths, weaknesses, alternative actions, relevant data or information. Come to a supported judgement of a subject's qualities and relation to its context.
Explain	An explanation that requires a justification/exemplification of a point. The answer must contain some element of reasoning/justification. This can include mathematical explanations.
Give, State, Name	Generally involves the recall of one or more pieces of information; when used in relation to a context, it is used to determine a candidate's grasp of the factual information presented.
Identify	Usually requires some key information to be selected from a given stimulus/resource.



Section A

Topic 11: Research methods – How do you carry out psychological research?

This section will contain question types that include calculations, multiple-choice, short-open and open-response questions, and one extended open-response question.

Question 1a

Caleb designed a questionnaire to investigate obedience to authority. He decided to use open-ended and closed-ended questions. Caleb gave his questionnaire to all the students who were in the sixth-form study room on a Monday.

(a) Identify the sampling method Caleb used in his investigation.

(1)

- A Volunteer sampling
- B Opportunity sampling
- C Stratified sampling
- D Random sampling

Question number	Answer	Mark
1(a)	B	(1)

An AO1 question where candidates are required to identify the correct sampling method used in the scenario from the four options presented in the multiple choice answers.

Candidate answer to question 1a

1 Caleb designed a questionnaire to investigate obedience to authority. He decided to use open-ended and closed-ended questions. Caleb gave his questionnaire to all the students who were in the sixth-form study room on a Monday.

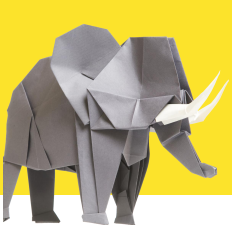
(a) Identify the sampling method Caleb used in his investigation.

- A Volunteer sampling
- B Opportunity sampling
- C Stratified sampling
- D Random sampling

This candidate achieved one mark for correctly identifying opportunity sampling.

Candidates should always ensure they follow the instructions for selecting answers in multiple choice questions:

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.



Question 1b

(b) Define what is meant by an 'open-ended question'.

(1)

Question number	Answer	Mark
1(b)	<p>One mark for correct definition of open-ended questions.</p> <ul style="list-style-type: none">• A question where participants can give a detailed answer about their opinions (1). <p>Accept any other appropriate response.</p>	(1)

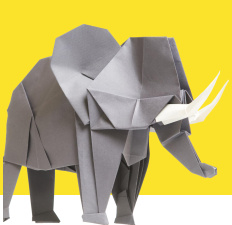
This is an AO1 question assessing candidate knowledge of open-ended questions.

Candidate answer to question 1b

(b) Define what is meant by an 'open-ended question'.

It is a question that can be answered in detail.

This candidate was awarded one mark for demonstrating the correct knowledge of an open-ended question.



Question 1c

(c) Give **two** reasons why Caleb used closed-ended questions.

(2)

Question number	Answer	Mark
1(c)	<p>One mark for each reason applied to scenario (up to a maximum of two marks).</p> <p>For example:</p> <ul style="list-style-type: none"> • Data about obedience could be analysed statistically (1) • Answers from the students would be easier to compare (1). <p>Accept any other appropriate response.</p>	(2)

This is an AO2 question requiring candidates to apply their knowledge and understanding to the scenario-based material. The question asks directly about why Caleb used closed-ended questions, and candidates are required to make the link to the research that Caleb completed.

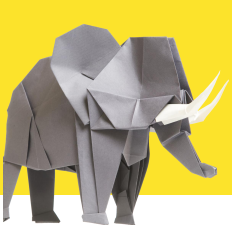
Candidate answer to question 1c

(c) Give **two** reasons why Caleb used closed-ended questions.

They allow more detailed answers.

Helps him collect more information.

The candidate achieves zero marks for their response. The first point is incorrect, and in addition there is no application to the scenario material. The second point is generic and underdeveloped, and is not a reason for closed-ended questions (it could be a reason for a number of different methodological decisions). Candidates must apply their responses to the scenario to gain AO2 marks.



Question 1d

- (d) Caleb scored the participant answers to the questionnaire using a scale from 0 to 20, with 20 showing most likely to obey an authority figure.

The results of Caleb's study are shown in **Table 1**.

Participant	Score out of 20 for obedience
A	2
B	16
C	12
D	6
E	4
F	8
G	12
H	14
I	10
J	18

Table 1

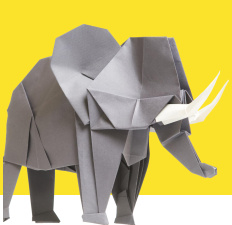
Calculate the mean score for obedience for Caleb's investigation.

You should give your answer to **one** decimal place.

(2)

Question number	Answer	Mark
1(d)	<p>One mark for calculating the mean.</p> <p>One mark for answer to one decimal place.</p> <ul style="list-style-type: none">• Calculation: $2+16+12+6+4+8+12+14+10+18 = 102/10 =$• 10.2 <p>Reject all other answers</p>	(2)

This question is assessing mathematical skills. Candidates are required to calculate the mean score for the data they have been provided with in Table 1 and give their answer to one decimal place.



Candidate answer to question 1d

Calculate the mean score for obedience for Caleb's investigation.

You should give your answer to **one** decimal place.

$$2 + 16 + 12 + 6 + 4 + 8 + 12 + 14 + 10 + 18 = 102$$

$$102 \div 10 = 10.2 \checkmark$$

(2)

Mean score 10.2 ✓

This candidate achieved two marks for calculating the mean and providing an answer to one decimal place.

It is good practice for candidates to show their workings in mathematical questions as there are some questions where the steps in mathematical calculating can gain credit, even where the candidate then gives an incorrect answer. For example, in this question had the candidate rounded their answer incorrectly to 10 they would not have achieved the mark for one decimal place, but if their calculations are shown and they are correct then they could achieve the first mark.

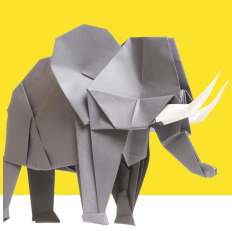
Question 1e

(e) State how you would calculate the mode for a set of data.

(1)

Question number	Answer	Mark
1(e)	<p>One mark for stating how to calculate the mode.</p> <p>For example:</p> <ul style="list-style-type: none"> I would count the number of times each score appears in the data to find the one occurring most often (1). <p>Accept any other appropriate response.</p>	(1)

This question is assessing mathematical skills. Candidates are required to state how they would make this calculation. This required candidates to give the process of the calculation, rather than undertake the calculation, and assesses their AO1 understanding of mathematical content.



Candidate answer to question 1e

(e) State how you would calculate the mode for a set of data.

(11)

the mode is the most common, so you would look for the number that came up the most.

The candidate achieves one mark for clearly stating how they would undertake the process of finding the mode for a set of data.

Question 1f

(f) Complete the bar chart in **Figure 1** with the scores for participants C, F and I using the data in **Table 1**.

(3)

A bar chart to show the participant scores (out of 20) for obedience to an authority figure.

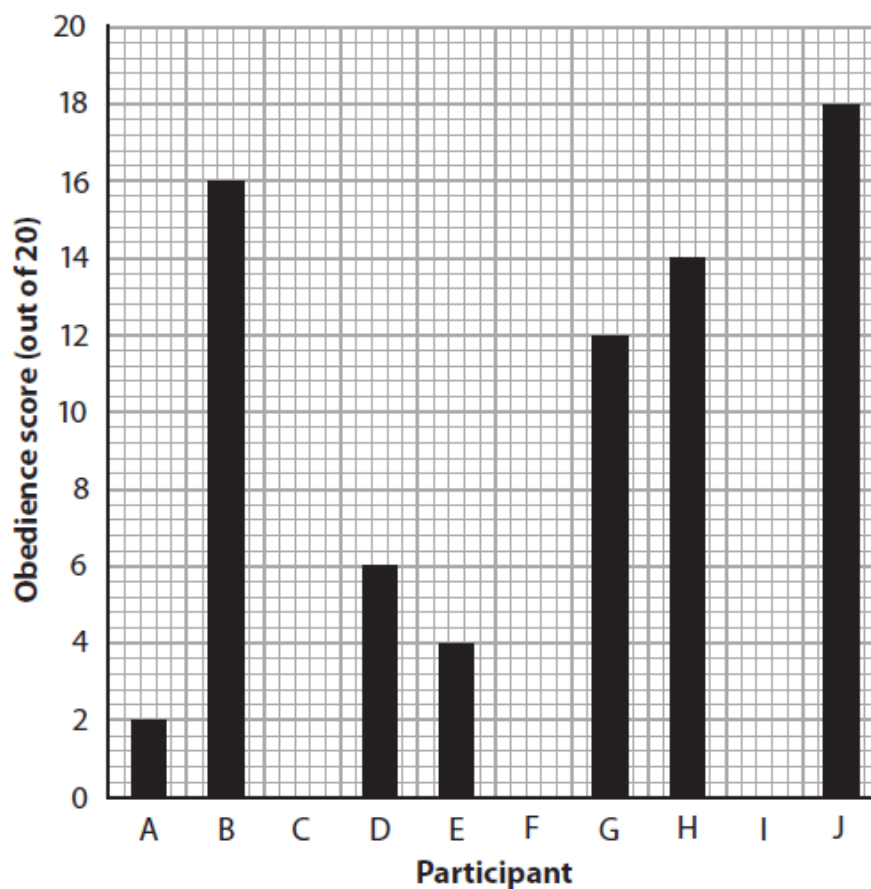
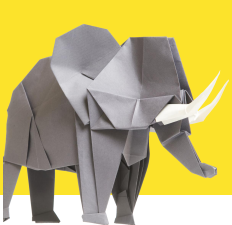
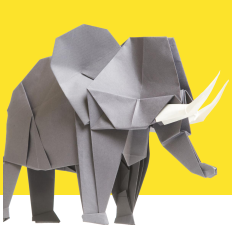


Figure 1



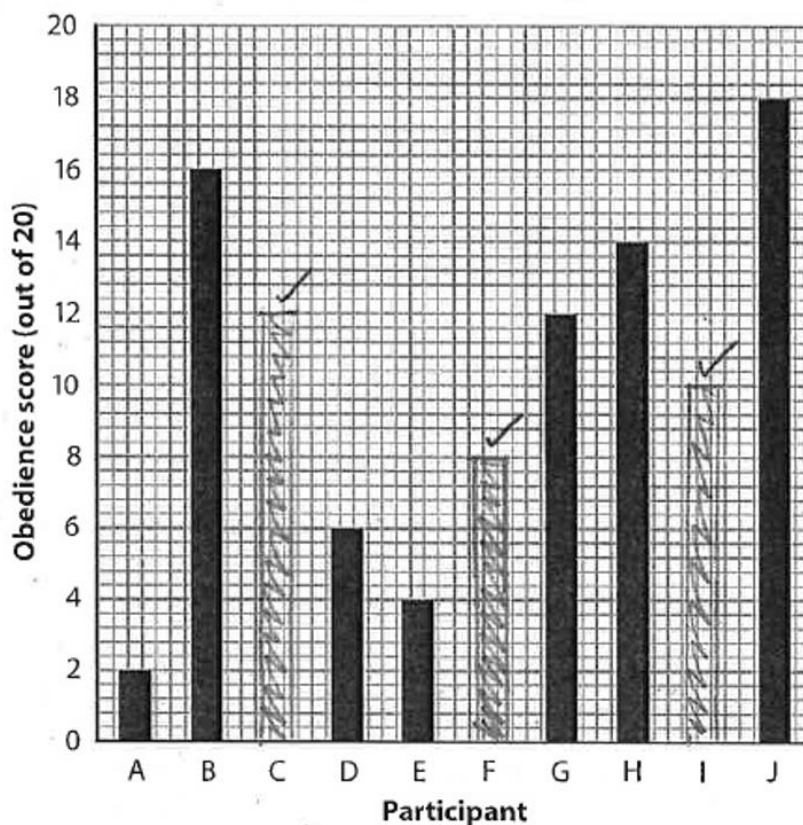
Question number	Answer	Mark
1(f)	One mark for plotting bar for participant C. One mark for plotting bar for participant F. One mark for plotting bar for participant I.	(3)

This question is assessing mathematical skills. Each correctly plotted 'missing' bar on the bar chart is awarded one mark. Candidates are directed back to the data that is found in Table 1 on the adjacent page in order to plot the bars on the bar chart.

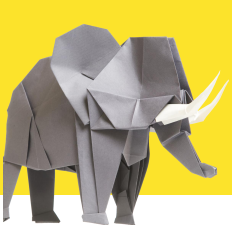


Candidate answer to question 1f

A bar chart to show the participant scores (out of 20) for obedience to an authority figure.



The candidate achieved all three available marks for correctly plotting the missing bars on the bar chart. Candidates should be careful to ensure they plot their charts clearly and take time to ensure the bars are not 'touching' the next bars as the data is discrete, not continuous.



Question 2a

Elise conducted research into the success of drug treatment for nicotine addiction. She studied 48 participants in total. 12 of the participants were female.

(a) Calculate the ratio of males to females in Elise’s research.

Express your answer in the lowest form.

(1)

Question number	Answer	Mark
2(a)	<p>One mark for correct answer.</p> <ul style="list-style-type: none"> • Calculation: 36:12 simplified using common factor = 36/12 • 3 : 1 <p>Reject all other answers.</p>	(1)

This question is assessing mathematical skills. Candidates are expected to give the ratio of males to females in the scenario, and ratios should be given in the lowest form. They are reminded of this in the question.

Candidate answer to question 2a

(a) Calculate the ratio of males to females in Elise’s research.

Express your answer in the lowest form.

Handwritten candidate work:

$$48 - 12 = 36$$

36 :

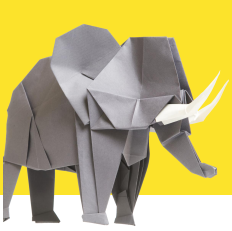
$$\begin{matrix} M & : & F \\ 36 & & 12 \end{matrix} \div 6 \checkmark$$

$$\begin{matrix} 6 & : & 2 \\ 3 & : & 1 \end{matrix} \div 2 \checkmark$$

Ratio 3 : 1 ✓

(1)

The candidate achieved one mark for their answer of 3:1. It is important that candidates give their ratio in the correct ‘order’, which will be indicated in the question, in this case males to females. This candidate has ensured they gave the ratio in the right ‘order’ through their well-structured workings out.



Question 2b

Elise split her participants into two groups. The experimental group were given a three-month trial of a drug treatment and the control group were not.

She asked both groups to record how many cigarettes they smoked each day during this time.

(b) State a null hypothesis for Elise's research.

(3)

Question number	Answer	Mark
2(b)	<p>One mark for dependent variable. One mark for independent variable. One mark for null statement.</p> <ul style="list-style-type: none">• There will be no significant difference in the number of cigarettes smoked in three months by the drug treatment group compared to the control group. Any difference will be due to chance (3).• There will be no significant difference in the number of cigarettes smoked in three months. Any difference will be due to chance (2).• There will be no significant difference in smoking. Any difference will be due to chance (1). <p>Accept any other appropriate response.</p>	(3)

Candidates are required to give a null hypothesis for the research being undertaken in the scenario. They should clearly state operationalised variables and demonstrate the components of a null hypothesis in their responses. Where all three marks are awarded, candidates will have shown both the independent variable (IV) and dependent variable (DV), and formed their null hypothesis accurately. Where partial achievement is shown, it must attempt to demonstrate a null hypothesis, as directed in the question, for any marks to be awarded.

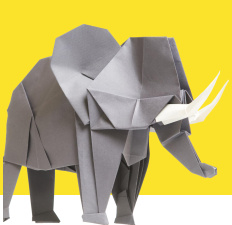
Candidate answer to question 2b

(b) State a null hypothesis for Elise's research.

(3)

There will be no difference between how many cigarettes the experimental group and control group smoked each day, any change will be due to chance.

This candidate achieved two marks. Their null hypothesis does not sufficiently operationalise the drug treatment group and refers generically to the 'experimental' group.



They have operationalised cigarettes smoked in a day and correctly given their hypothesis as a null hypothesis indicated with 'no difference' and 'any difference is due to chance'.

Question 2c

The results for Elise's research are shown in **Table 2**.

Group	Mean number of cigarettes smoked each day by male participants in three months	Mean number of cigarettes smoked each day by female participants in three months
Drug treatment	4	6
Control	12	8

Table 2

(c) Describe, using the data in **Table 2**, the results for males and females in Elise's research.

(2)

Question number	Answer	Mark
2(c)	<p>Up to two marks for a description of the data.</p> <ul style="list-style-type: none"> Males in the drug treatment group smoked a third of the number of cigarettes compared to the male control group (1). Females undertaking drug treatment smoked an average of 2 less cigarettes than females in the control group (1). <p>Accept any other appropriate response.</p>	(2)

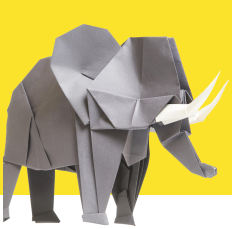
Candidates are awarded two marks here for their description of the data. They should give developed answers and use the data provided in Table 2. A description requires the candidates to develop their point, and in this case that should be a written account of the results of the research.

Candidate answer to question 2c

(c) Describe, using the data in **Table 2**, the results for males and females in Elise's research.

(2)

men who were treated with drug treatment were 3x less smoked 3x less cigarettes than men who didn't. The number of cigarettes women smoked with treatment only dropped by two.



This candidate achieved one mark for their response. The mark was awarded for the point made at the start of the answer. The candidate has made a second point, but has misinterpreted the data in Table 2 as the mean number for cigarettes smoked each day by females did not 'drop' by two, as the groups were not the same females, so this data does not show 'before and after' treatment, only a difference between the two groups.

Question 2d

(d) Explain **one** conclusion that Elise can make about drug treatments from her results.

(2)

Question number	Answer	Mark
2(d)	<p>One mark for conclusion made about drug treatments.</p> <p>One mark for justification of conclusion through analysis of data.</p> <ul style="list-style-type: none"> Drug treatments for nicotine addiction work more effectively with males than females (1) because males smoke less cigarettes during drug treatment than females (1). <p>Accept any other appropriate response.</p>	(2)

'Explain' requires candidates to present a justified or exemplified response to the question. Candidates are required in this question to draw a conclusion about drug treatments for smoking and include justification, using the results they have been presented with in the scenario. The skills of drawing a conclusion and justifying this conclusion target AO3.

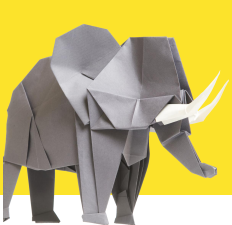
Candidate answers to question 2d

(d) Explain **one** conclusion that Elise can make about drug treatments from her results.

(2) (

men were more likely to stop smoking smoke less with
the use of drug treatment than women but this could
be because more men were involved there was a
lower mean.

The candidate here achieved zero marks. A common error is describing or interpreting results rather than drawing a conclusion from results and using the data as justification for the conclusion. The candidate gives an interpretation of the results on the first two lines, which could achieve a justification mark if it was followed or preceded by a conclusion; given a conclusion is required in order to subsequently achieve the mark for justification of that conclusion.



(d) Explain **one** conclusion that Elise can make about drug treatments from her results.

(2)

Drug treatments are ^{more} effective in males than females when it is regarding smoking.

This candidate achieved one mark for giving a conclusion about drug treatments; however, they did not achieve the second mark as there was no justification of this conclusion from the results.

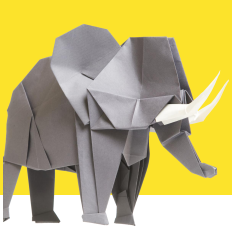
Questions 3a and 3b

Joe gathered data about the short-term memory capacity of children aged 14 years old. He showed the children 24 items for 30 seconds and asked the children to recall as many items as they could.

Joe's results are shown in **Table 3**.

Participant	Number of items recalled
A	7
B	6
C	8
D	7
E	9
F	10
G	6
H	6

Table 3



(a) Calculate the range for the number of items recalled using the data in **Table 3**. (1)

Range

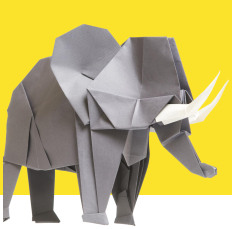
(b) Calculate the median score for number of items recalled using the data in **Table 3**. (2)

Median score

Question number	Answer	Mark
3(a)	<p>One mark for correct answer.</p> <p>Calculation: $10 - 6 = 4$</p> <ul style="list-style-type: none">• 4 <p>Accept any other appropriate response.</p>	(1)

Question number	Answer	Mark
3(b)	<p>One mark for correct rank ordering. One mark for correct answer.</p> <ul style="list-style-type: none">• Rank ordering: 6 6 6 7 7 8 9 10 (Calculation: $7 + 7 = 14/2$)• 7 <p>Reject all other answers.</p>	(2)

These questions are assessing mathematical skills. 3(a) requires candidates to calculate the range for the data given in Table 3, and 3(b) requires candidates to calculate the median score for the data in Table 3.



Candidate answer to question 3a and 3b

(a) Calculate the range for the number of items recalled using the data in **Table 3**.

$$10 - 6 = 4$$

(1)

Range 4

(b) Calculate the median score for number of items recalled using the data in **Table 3**.

~~6, 6, 6, 7, 7, 8, 9, 10~~

(2)

Median score 7

The candidate has correctly calculated both the range and the median and achieves both of the available marks for this question. The candidate has given their workings out in the spaces on the examination paper; this is beneficial for candidates and should be promoted as best practice for calculations.

Question 3c

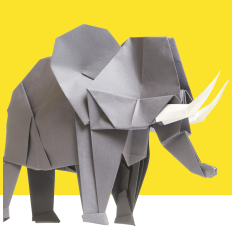
(c) Joe used a total of 24 items in his short-term memory task.

Describe how you would calculate the number of items recalled by participant A as a percentage of the total items.

(2)

Question number	Answer	Mark
3(c)	<p>Up to two marks for describing how to calculate the percentage</p> <ul style="list-style-type: none"> I would divide the number of/7 items recalled by the total number of/24 items (1) and then multiply the answer by 100 to reach the percentage (1). <p>Accept any other appropriate response.</p>	(2)

This question is assessing mathematical skills. Candidates are required to describe how they would make this calculation of a percentage in relation to a specific set of data for Participant A. This required candidates to give the process of the calculation in relation to the scenario presented.



Candidate answer to question 3c

(c) Joe used a total of 24 items in his short-term memory task.

Describe how you would calculate the number of items recalled by participant A as a percentage of the total items.

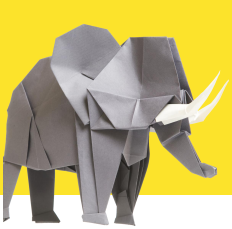
(2)

You would do $\frac{7}{24}$ which equals 0.2916 then

you would multiply it by 100 to get the percentage
 $0.2916 \times 100 = 29.16$ = 29.2% (rounded 1.dp)

This candidate achieved two marks for their response. They have described clearly the two steps of calculating a percentage.

While the use of numbers and calculations may help candidates with describing the process, the calculation itself would not achieve marks and is not a requirement when describing a mathematical process. A response that gives just a mathematical calculation, for example $7 \div 24 \times 100$, would not be a description of the process and would achieve zero marks.



Question 4a

Caitlin investigated how long it took participants to recall the sequence of events from a story in the correct order.

The data gathered by Caitlin is shown in Figure 2.

A histogram to show the length of time taken for participants to recall the sequence of events from a story in the correct order.

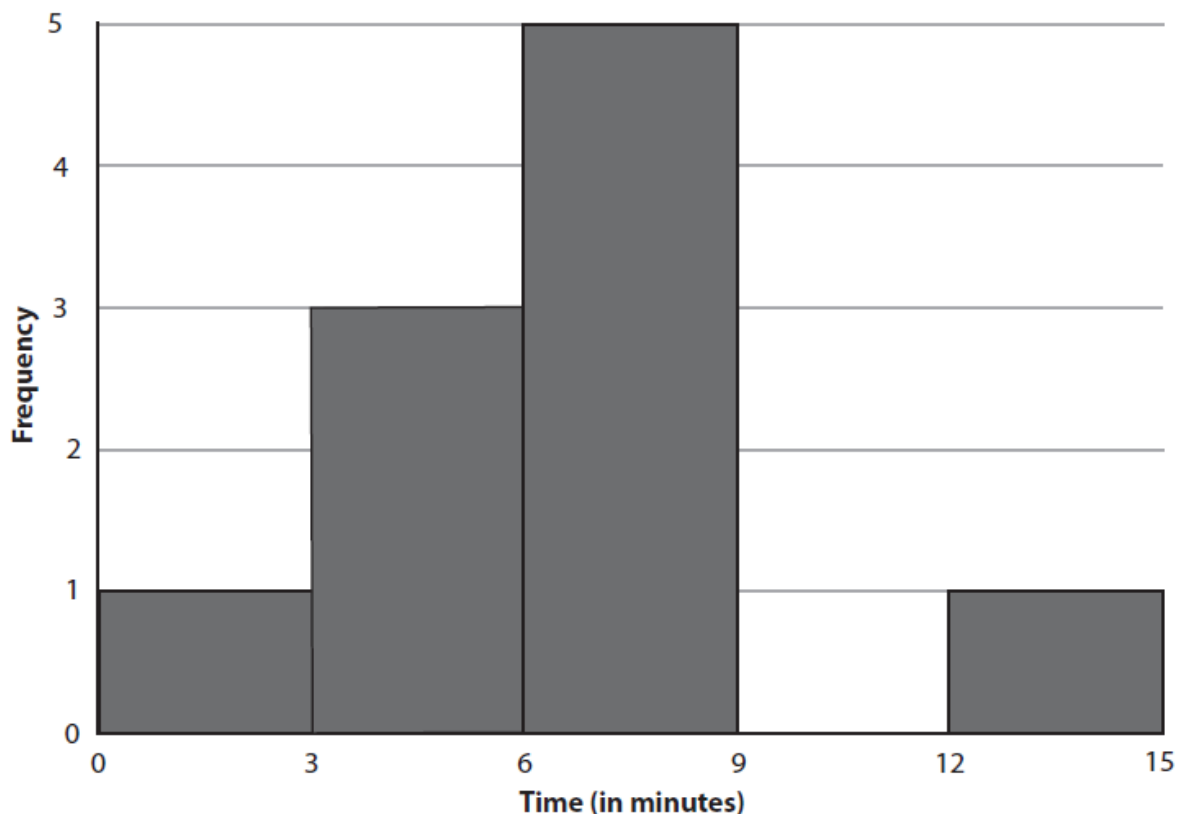


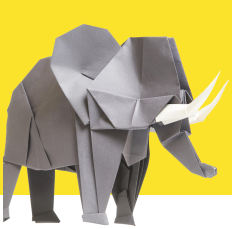
Figure 2

(a) Give the number of participants who recalled the story in the correct order in 9 minutes or less.

(1)

Question number	Answer	Mark
4(a)	One mark for correct interpretation of histogram <ul style="list-style-type: none">• $1+3+5=9$• 9	(1)

This question is assessing mathematical skills. Candidates are required to interpret the histogram in order to give the answer to the question.



Candidate answer to question 4a

(a) Give the number of participants who recalled the story in the correct order in 9 minutes or less.

(1)

Number of participants 9

This candidate achieved one mark for a correct interpretation of the histogram. They have not given their workings out, while this is not necessary here, candidates may benefit from doing this as best practice, as marks can be awarded for the steps in the larger or more complex mathematical calculations.

Question 4b

(b) State the total number of participants who recalled the story in the correct order.

(1)

Question number	Answer	Mark
4(b)	<p>One mark for correct total number of participants</p> <ul style="list-style-type: none"> • $1+3+5+1=10$ • 10 	(1)

This question is assessing mathematical skills. Candidates are required to interpret the histogram in order to give the answer to the question.

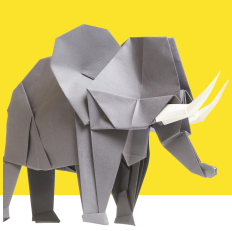
Candidate answer to question 4b

(b) State the total number of participants who recalled the story in the correct order.

(1)

Total number of participants 10

This candidate achieved one mark for a correct interpretation of the histogram. They have not given their workings out, while this is not necessary here, candidates may benefit from doing this as best practice, as marks can be awarded for the steps in the larger or more complex mathematical calculations.



Question 5

Correlational research was conducted by Gottesman and Shields (1966) to find out if there was a genetic basis to the mental health disorder of schizophrenia.

They used a sample of twins to see whether it was likely that both twins would develop the disorder. The sample included 24 pairs of monozygotic (identical) twins, who share the closest genetic relatedness, and 33 pairs of dizygotic (non-identical) twins.

The findings of the study are shown in **Table 4**.

Twin pair	Both twins diagnosed with schizophrenia
Monozygotic twins	42%
Dizygotic twins	9%

Table 4

Gottesman and Shields (1966) concluded that their research showed a correlation between genetic relatedness and the mental health disorder of schizophrenia.

Evaluate the use of the correlation method to research human behaviour.

(12)

AO1

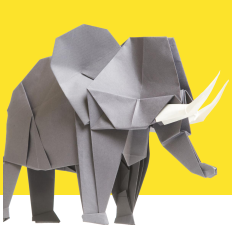
- Correlational research looks at relationships between variables.
- Correlational data can be useful as a starting point for more detailed research into human behaviour.
- Extraneous variables are difficult to control when conducting correlational research.
- Results do not enable researchers to make cause and effect conclusions about human behaviour.

AO2

- The relationship researched is a genetic predisposition to a mental health disorder/schizophrenia.
- A 42% concordance rate could lead to investigations into the genetics of mental health/schizophrenia.
- The twins' experiences and upbringing cannot be excluded as a variable in the development of the mental health disorder/schizophrenia.
- There is not 100% concordance between monozygotic twins, so genes cannot be the only cause of this behaviour.

AO3

- There is no manipulation of an independent variable, so the relationships found in the correlations have good validity in terms of naturally occurring situations.
- It may be difficult to find a sample of 57 pairs of twins as a starting point for further genetic research, so correlational methods may not be practical in researching human behaviour.
- The correlational method lacks internal validity as there is poor control over extraneous variables affecting the twins so the data gathered may not actually be testing genetics.
- A 42% concordance rate means 58% of monozygotic twins did not develop schizophrenia, so the results only indicate that genetics has some relationship to the mental health disorder/schizophrenia, but is not the cause of it.

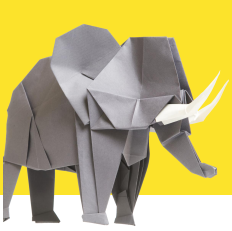


Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none">• Demonstrates limited knowledge and understanding of psychological processes and procedures, may not always be relevant (AO1).• Little or no application of psychological processes and procedures to the context (AO2).• Limited attempt to evaluate psychological processes and procedures. Little or no connections between the elements in the question, with unsupported, generic judgements. Limited conclusion that is not fully justified (AO3).
Level 2	4–6	<ul style="list-style-type: none">• Demonstrates mostly accurate knowledge and understanding of relevant psychological processes and procedures (AO1).• Some application of psychological processes and procedures to the context but may be limited or lack relevance (AO2).• Some attempt to evaluate psychological processes and procedures but may draw on limited evidence. Mostly logical chains of reasoning, leading to judgements. Basic conclusion reached but may be superficial (AO3).
Level 3	7–9	<ul style="list-style-type: none">• Demonstrates accurate and thorough knowledge and understanding of relevant psychological processes and procedures (AO1).• Relevant and accurate application of psychological processes and procedures to the context (AO2).• Sustained and accurate evaluation of psychological processes and procedures, supported with accurate evidence. Sustained and logical chains of reasoning, leading to relevant judgements with justified conclusion (AO3).
Level 4	10–12	<ul style="list-style-type: none">• Demonstrates comprehensive and accurate knowledge and understanding of relevant psychological processes and procedures throughout (AO1).• Sustained relevant and accurate application of psychological processes and procedures to the context (AO2).• Comprehensive evaluation of psychological processes and procedures supported with accurate and thorough use of evidence. Sustained and logical chains of reasoning, leading to fully supported judgements with well-justified conclusion (AO3).

This question is a 12-mark extended essay question that requires candidates to evaluate a given methodology, and draw on the example study to demonstrate that they can apply their understanding to an example of previously unseen stimulus material. This question is marked using a levels-based mark scheme, where candidates are required to demonstrate skills across all the assessment objectives of AO1 knowledge and understanding, AO2 application to the stimulus and AO3 evaluation.

In this question, candidates should be careful not to evaluate the study in the scenario but to evaluate the methodology asked for in the question, using the study in the scenario to develop their responses.

Centres are directed to review pages 3 and 4 of the ‘Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Psychology (1PSO) Sample Assessment Materials’ (Pearson Education Limited, 2017) for detailed information about the application of levels-based mark schemes.



Candidate answers to question 5

- 5 Correlational research was conducted by Gottesman and Shields (1966) to find out if there was a genetic basis to the mental health disorder of schizophrenia.

They used a sample of twins to see whether it was likely that both twins would develop the disorder. The sample included 24 pairs of monozygotic (identical) twins, who share the closest genetic relatedness, and 33 pairs of dizygotic (non-identical) twins.

The findings of the study are shown in Table 4.

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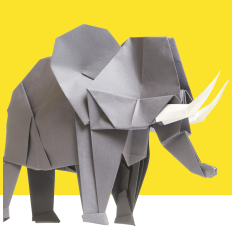
Table 4

Gottesman and Shields (1966) concluded that their research showed a correlation between genetic relatedness and the mental health disorder of schizophrenia.

Evaluate the use of the correlation method to research human behaviour.

(12)

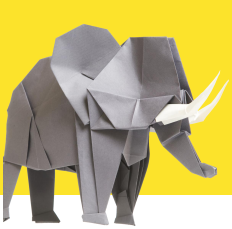
~~The correlation method~~ A strength of a correlation method is that it is easy to gather quantitative data that can then be compared, to see if any patterns occur. This means that by Gottesman and Shields using this method to research if there was a genetic basis to schizophrenia they would have gathered quantitative results that were easy to compare with each other and ~~analyze~~ ^{analyze}. This is good because it allowed them to discover that 42% of monozygotic twins had schizophrenia compared to 9% of dizygotic twins, which suggests that there is a genetic basis to schizophrenia. Therefore showing that you could develop schizophrenia as a result of your ~~genes~~ genes, which would reduce the stigma surrounding it.



However a weakness of ~~schizophrenia~~ ~~is that~~ a correlation method is that it doesn't take ~~the~~ cause and effect into account, ~~for~~ because it is numerical data. This means that genetics might not be an explanation as to why more monozygotic twins develop schizophrenia than ~~the~~ dizygotic twins. It could be as a result of the environment they grew up in, as twins usually grow up in the same environment so experience similar things. Therefore using a correlation method could cause Gottesman and Shields results to be incorrect. This is bad as the results ~~are~~ are no longer valid.

Another ^{strength} ~~weakness~~ of a correlation method is that it ~~includes~~ ~~omissions~~ is easy to spot the anomalies in the results. This means that Gottesman and Shields could exclude data that did not match the pattern of results. This is good because the results are more valid as only the reliable results are included in the final set of data.

Overall the correlation method is good for comparing the data that is given, however it can't fully explain why we get the data we do.



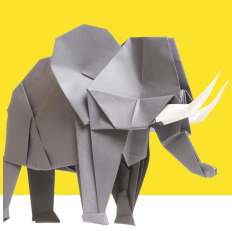
This candidate has achieved Level 3 in their response, being awarded 7 marks.

AO1 shows mostly accurate knowledge and understanding of the correlational method in the first part of their response, with their point about gathering data to look for patterns. They then lead into AO2, giving relevant and accurate application to the stimulus material, with their point about comparisons being made in the study to look for a genetic basis to schizophrenia. The candidate then attempts to present AO3 evaluation of the methodology by using reasoning about how this helps understand the development of schizophrenia.

The candidate provides a second paragraph that shows AO1, AO2 and AO3, although the AO1 and AO3 here could be better developed – their point about cause and effect is not developed to show why this may be the case, and their AO3 shows limited evaluation, where they have given a point about validity but not fully expanded this.

The final paragraph is limited AO1, AO2 and AO3. There are inaccuracies within their points and they appear to have confused their understanding of anomalies in terms of removing participants that do not fit the aim of the study. However, acknowledgement has been given that anomalies can be found in correlational data with some ease, which can aid in reviewing the data for that anomaly in further detail to check for errors; but only potentially excluding this data if there are methodological issues or errors, not because a researcher decides to exclude this in order to make their data fit the desired outcome.

This response would be improved in terms of AO1 if the candidate provided more thorough detail, with greater accuracy and wider breadth, about the methodology to demonstrate understanding beyond Level 2. The AO2 shows Level 3 application, for Level 4 the application would become more sustained if it had been linked more accurately towards the end. For AO3, the candidate would need to make clearer and more accurate links to the strengths and weaknesses of the methodology to achieve beyond Level 2.



- 5 Correlational research was conducted by Gottesman and Shields (1966) to find out if there was a genetic basis to the mental health disorder of schizophrenia.

They used a sample of twins to see whether it was likely that both twins would develop the disorder. The sample included 24 pairs of monozygotic (identical) twins, who share the closest genetic relatedness, and 33 pairs of dizygotic (non-identical) twins.

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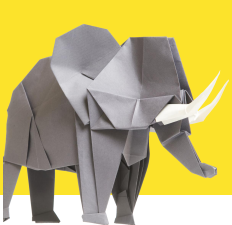
Evaluate the use of the correlation method to research human behaviour.

(12)

Correlation is an effective method to research human behaviour as it is easy to compare.

The researchers can easily plot a graph with two variables to see how much they depend on each other. Finding out if they are directly proportional (positive correlation), inversely proportional (negative correlation) or do not depend on each other. This means that the findings are objective as they have solid evidence to prove if something is related to each other.

Correlation is not an effective method to research human behaviour as it does not take into account other factors which may effect behaviour.



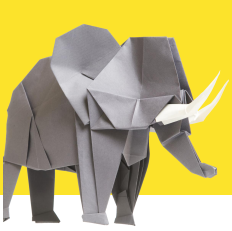
For example, in the Gottesman and Shields study they did not allow for external factors in their nurture which may effect there likeliness to develop schizophrenia. A better alternative to correlation would be an interview as they can then directly ask the participants questions, instead of just looking at two factors.

Overall, correlations is a good way to research human behaviour as it can see how one variable effects another. However, it does not provide qualitative data to allow for other factor which can effect behaviour. This means that an interview would be a better alternative as it looks at more detailed reasons.

This candidate has achieved Level 2 in their response, being awarded 4 marks.

AO1 shows mostly accurate understanding of the correlational research methodology, with credit awarded for their points about plotting a graph to see if variables depend on each other; types of correlations; and not taking into account other factors. The AO2 is quite limited and evident only where they make the link to not accounting for nurture in their study. AO3 is underdeveloped, with a limited attempt made to evaluate the methodology. Credit was given for the point about lacking qualitative data (in the final paragraph) which was considered to be connected to their point about an interview being an alternative (second paragraph, and repeated in their final point).

This response would be improved in terms of AO1 if the candidate had provided more thorough breadth and detail, with greater accuracy, about the methodology to demonstrate understanding beyond Level 2. The AO2 shows Level 1 application, for Level 2 the application would require further links to the stimulus material to develop their points throughout the response. For AO3, the candidate would need to give more developed strengths and weaknesses of the methodology to achieve beyond Level 1.



- 5 Correlational research was conducted by Gottesman and Shields (1966) to find out if there was a genetic basis to the mental health disorder of schizophrenia.

They used a sample of twins to see whether it was likely that both twins would develop the disorder. The sample included 24 pairs of monozygotic (identical) twins, who share the closest genetic relatedness, and 33 pairs of dizygotic (non-identical) twins.

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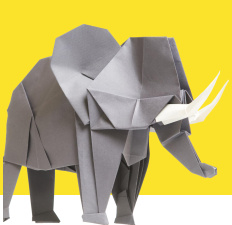
Table 4

Gottesman and Shields (1966) concluded that their research showed a correlation between genetic relatedness and the mental health disorder of schizophrenia.

Evaluate the use of the correlation method to research human behaviour.

(12)

The use of correlation to research human behaviour can be effective, as it shows the relation between humans and behaviour. Gottesman and Shields' ~~exper~~ research showed positive correlation between how close genetic relatedness ^{between} twins ~~have~~ and how likely it is for both twins to be diagnosed with schizophrenia. Positive correlation ~~AM~~ is where as one piece of information goes up, so does the other. In this case, the more genetic makeup

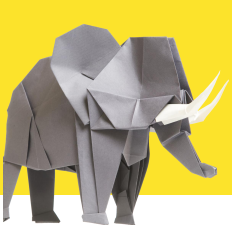


The twins share means the more likely it is for them to both be diagnosed with schizophrenia. The use of correlation can also be good to research human behaviour is that the data can be presented in many ways such as tables and graphs. The data correlation gains is also quantitative and objective, which ~~also~~ means it's more scientific - making it more valid. This can be good for researching human behaviour, because a lot of the time human behaviour is more subjective.

This candidate has achieved Level 1 in their response, being awarded 2 marks.

AO1 shows limited understanding of the correlational research methodology, with credit awarded for their points about a positive correlation and quantitative data in graphs. The AO2 is quite limited, and much of this is directly 'copied' from the stimulus rather than used to demonstrate application of their understanding to the material. Within this response, there is no AO3 evaluation material. Although there is a very generic point that the candidate has attempted to make about scientific data, this is not sufficient to be awarded any AO3 content.

This response would be improved in terms of AO1 if the candidate had provided more detail, in terms of depth and breadth of content, about the correlational methodology to demonstrate understanding beyond Level 1. The AO2 shows Level 1 application and most is 'copied' text rather than being 'used' in their answer, for Level 2 the application would require further links to the stimulus material to develop their points throughout the response. For AO3, the candidate would need to give strengths and weaknesses of the correlational research methodology to achieve beyond Level 0.



Sections B to F: Optional topics

Topic 6: Criminal psychology – Why do people become criminals?

This section will include multiple-choice, short-open and open-response questions, and one extended open-response question.

Question 6

Identify the sample size used in the study by Bandura, Ross and Ross (1961).

- A 39 children
- B 36 children
- C 72 children
- D 24 children

(Total for Question 6 = 1 mark)

Question number	Answer	Mark
6	C	(1)

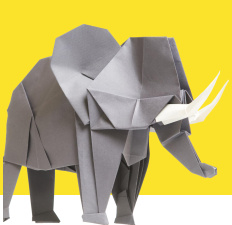
An AO1 question where candidates are required to identify the correct sample size used in the study from the four options presented in the multiple choice answers.

Candidate answer to question 6

6 Identify the sample size used in the study by Bandura, Ross and Ross (1961).

- A 39 children
- B 36 children
- C 72 children
- D 24 children

This candidate achieved zero marks as the correct sample size is 72 children.



Question 7

State what is meant by 'extraversion'.

Question number	Answer	Mark
7	<p>One mark for knowledge of extraversion.</p> <ul style="list-style-type: none">When a person is lively, sociable and pleasure seeking (1) <p>Accept any other appropriate response.</p>	(1)

Candidates are required to give a statement to show their knowledge of what is meant by extraversion. This question is an assessment of AO1 skills.

Candidate answer to question 7

State what is meant by 'extraversion'.

A personality that see is out going and thrill-seeking. They are very social.

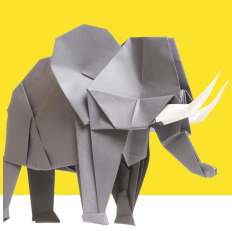
The candidate achieved one mark for demonstrating their knowledge of extraversion. Candidates should take care to give sufficient detail in their answers to clearly demonstrate their knowledge of the terminology used in the specification.

Question 8

Describe how restorative justice aims to prevent recidivism.

Question number	Answer	Mark
8	<p>Up to two marks for understanding of restorative justice as used to prevent recidivism.</p> <p>For example:</p> <ul style="list-style-type: none">By encouraging the offender to meet with the victim of their crime (1) the offender understands the effect of their behaviour on individuals (1). <p>Accept any other appropriate response.</p>	(2)

This question targets AO1 understanding of how restorative justice is used to prevent recidivism. Candidates are required to give a developed point to achieve two marks for this question.



Candidate answers to question 8

8 Describe how restorative justice aims to prevent recidivism.

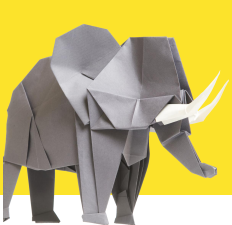
Restorative justice is when the victim (or family of victim) meet the ~~the~~ perpetrator and discuss what has happened since the crime. It aims to prevent reoffending ^{because} as if the criminals realise the effects left after the crime, they ^{wouldn't do it again due to} ~~will~~ ^(Total for Question 8 = 2 marks) ~~guilt~~.

This candidate achieved two marks for a developed description of how restorative justice aims to prevent recidivism. They have shown strong understanding of the role of the victim and offender in a restorative justice process, linking the meeting between these individuals to the prevention of reoffending as the offender realises the harm they have caused.

8 Describe how restorative justice aims to prevent recidivism.

Restorative justice makes the criminal see what consequences and affect their actions had. Therefore it tries to show them why they shouldn't do it again.

This candidate achieved one mark. They show some understanding of the process of offenders facing the consequences of their actions, but there is limited development in this response.



Question 9

The Government is discussing whether to increase prison sentences for anyone who is caught committing violent crimes, such as assault. They believe this will act as a deterrent to people and reduce the number of violent crimes.

Explain **one** weakness of increasing prison sentences as a deterrent for violent crimes.

Question number	Answer	Mark
9	<p>One mark for identification of weakness. One mark for justification, which must be linked to the weakness identified.</p> <p>For example:</p> <ul style="list-style-type: none">Violent crime may not be a rational choice by offenders, so they may not consider the length of prison sentences (1) because their behaviour may be due to psychoticism personality type so having limited control over their actions (1). <p>Accept any other appropriate response.</p>	(2)

In an 'explain' question, candidates are required to justify the point that they make. Here, candidates are required to identify a weakness of increased prison sentencing in terms of being a deterrent for violent crimes. They should then justify, such as how or why, this is a weakness.

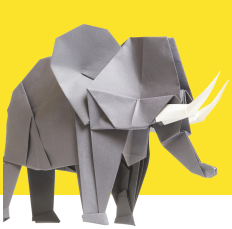
Candidate answer to question 9

9 The Government is discussing whether to increase prison sentences for anyone who is caught committing violent crimes, such as assault. They believe this will act as a deterrent to people and reduce the number of violent crimes.

Explain **one** weakness of increasing prison sentences as a deterrent for violent crimes.

Increasing ~~the~~ prison sentences is a weakness because they only get angrier when being locked up for longer and if they are annoyed they won't take part in the token economy programmes etc, which ~~red~~ increases their chance of recidivism.

This candidate achieved zero marks. The candidate has concentrated their response on the reactions of the offender to the punishment of a longer sentence as opposed to explaining whether prison sentences deter people from violent crime. The candidate attempts to draw on token economy and, although this is a process of rehabilitation that can take place within prisons, it is not related to prison sentence length.



Question 10

Luke was caught stealing money from work. When he was interviewed by the police, he told them he had been stealing money for six months to buy food for his family.

Explain, using the concept of primary reinforcers, why Luke stole money from work.

Question number	Answer	Mark
10	<p>One mark for accurate understanding of operant conditioning concept.</p> <p>One mark for exemplification of how the theory can be used to explain the scenario.</p> <p>For example:</p> <ul style="list-style-type: none">• Primary reinforcers are used to satisfy basic human needs (1) so Luke steals money to exchange it for food which meets a basic human need (1). <p>Accept any other appropriate response.</p>	(2)

This question required candidates to show their understanding of primary reinforcers and apply this to the scenario of Luke stealing money. The first mark is awarded for the AO1 understanding of primary reinforcers, and the second mark for the AO2 application to the scenario.

Candidate answer to question 10

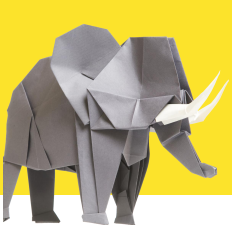
10 Luke was caught stealing money from work. When he was interviewed by the police, he told them he had been stealing money for six months to buy food for his family.

Explain, using the concept of primary reinforcers, why Luke stole money from work.

primary reinforcers - is our survival instincts like food, water and shelter therefore if he needed food for his family than he doesn't know any better than to steal.

(Total for Question 10 = 2 marks)

The candidate was awarded one mark for their understanding of primary reinforcers in the first part of the answer. There was no application of these concepts to the scenario, although the candidate has attempted to apply their understanding to Luke, the point they have made about 'not knowing any better' is not relevant to the question.



Question 11

Alexi is a 14-year-old young offender who is working with a mentor to help reduce her antisocial behaviour. The mentor encouraged Alexi to join a youth organisation where young people aged 12 to 17 years old volunteer to help the local community.

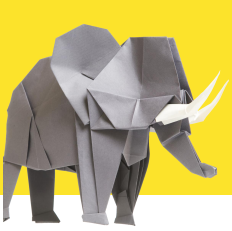
Alexi visits the youth organisation and observes the young people taking part in voluntary work with elderly residents in a care home. They help with daily tasks, such as shopping and cleaning. One of the volunteers tells Alexi that he enjoys helping and he always feels rewarded.

Explain **two** reasons why volunteering with other young people could be good for Alexi.

You must use theory to justify your answer.

Question number	Answer	Mark
11	<p>One mark for identification of each reason (maximum two marks). One mark for justification, which must be linked to the reason identified (maximum two marks).</p> <p>For example:</p> <ul style="list-style-type: none">• Alexi will observe pro-social behaviour displayed by the other young people when they are helping the elderly (1) which will be good as she may retain the behaviours and reproduce the positive actions of the other young people (1).• The other young people are a similar age to Alexi so she may identify with them as role models (1) which would result in her imitating their behaviour instead of carrying on with her anti-social behaviour (1). <p>Accept any other appropriate response.</p>	(4)

The question assesses AO2 application of understanding to the scenario and AO3 justification of the points, in this case justifying each reason why volunteering could be good for Alexi. Candidates are directed to use theory for their justification.



Candidate answer to question 11

Reason one:

Alexi could see the younger volunteers ~~doing~~ caring for the elderly and want to do it too, like in SLT, which is learning from the behaviours of others, she could see that the other volunteers enjoy it. So she wants to join in herself.

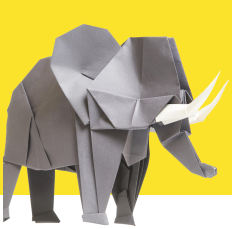
Reason two:

Because one of the volunteers said that he feels rewarded while ~~stay~~ caring for the elderly Alexi may want to do it too to gain positive reinforcement, which is linked to operant conditioning which is learning through rewards in order to continue doing something.

(Total for Question 11 = 4 marks)

The candidate achieved three marks. The first reason achieved one mark for the application to the scenario, but the justification using social learning theory (SLT) was not sufficient for the second mark. The second reason achieved two marks, the application to the scenario was strong and their justification of using positive reinforcement was well developed. This example demonstrates strong application skills and candidates should be clear that simple links, such as using a name, are not sufficient as application of their understanding.

Candidates should take the time to ensure they are using an appropriate theory from the Topic when justifying their responses in questions such as this.



Question 12

Adam lost his job when the company he worked for closed down. He was then caught stealing a computer from a shop while he was under the influence of alcohol. He has been given a 200-hour community sentence as punishment for his offence.

The community sentence requires Adam to complete unpaid work for 5 hours, three days a week and to attend an alcohol awareness programme. He is currently working with other offenders to help repair damage to a local library caused by vandals. Next week Adam will be tidying the garden of a community centre and rebuilding a damaged wall.

Assess whether community sentencing will prevent Adam committing another criminal offence.

(9)

AO1

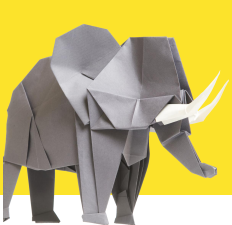
- Community sentencing aims to punish the offender through activities that are carried out in the community
- It includes punishment using activities that can include unpaid work
- It aims to address causes of offending behaviour through attending treatment programmes

AO2

- Alcohol may not have been the reason Adam stole the computer, he may have needed the money for other things
- Unpaid work will give Adam new skills, such as building, that may help him get another job after his sentence ends.
- Adam may benefit from understanding how alcohol can affect his behaviour and choices, so he does not steal again.

AO3

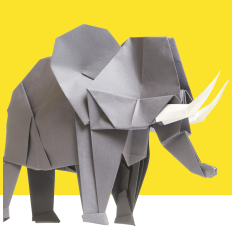
- Community sentencing is not considered as retributive as imprisonment and may not act as a deterrent for future offences as it is a 'soft option'.
- Punishment through unpaid work may give offenders a chance to become involved in the community and develop pro-social behaviour
- Treatment programmes, such as those targeting alcohol misuse, are effective in reducing recidivism in offenders as they deal with underlying causes of offending.



Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding of a limited range of psychological ideas (AO1).• Provides little or no reference to relevant psychological ideas related to the context (AO2).• Limited attempt to deconstruct relevant psychological ideas. Limited consideration of supporting/refuting evidence, leading to generic judgements (AO3).
Level 2	4–6	<ul style="list-style-type: none">• Demonstrates mostly accurate understanding of some relevant psychological ideas (AO1).• Provides some reference to relevant psychological ideas related to the context but this may be limited or lack relevance at times (AO2).• Deconstructs relevant psychological ideas using mostly logical chains of reasoning. Some consideration of supporting/refuting evidence, leading to a judgement (AO3).
Level 3	7–9	<ul style="list-style-type: none">• Demonstrates accurate and thorough knowledge and understanding of relevant psychological ideas (AO1).• Provides sustained reference to relevant psychological ideas related to the context (AO2).• Deconstructs relevant psychological ideas using logical chains of reasoning. Sustained consideration of supporting/refuting evidence, showing an awareness of competing arguments, leading to a judgement (AO3).

This question is an 8-mark extended essay question that requires candidates to assess a given component of the specification, in this case how well community sentencing can prevent Adam from committing further crimes. Candidates should draw on the scenario material about Adam, such as the crimes he committed, the sentence he received and his background to demonstrate that they can apply their understanding of community sentencing in this specific context. This question is marked using a levels-based mark scheme, where candidates are required to demonstrate skills across all the assessment objectives of AO1 knowledge and understanding, AO2 application to the stimulus and AO3 assessment.

Centres are directed to review pages 3 and 4 of the 'Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Psychology – Sample Assessment Materials' (Pearson Education Limited, 2017) for detailed information about the application of levels-based mark schemes.



Candidate answers to question 12

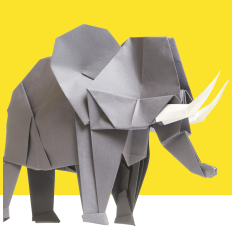
12 Adam lost his job when the company he worked for closed down. He was then caught stealing a computer from a shop while he was under the influence of alcohol. He has been given a 200-hour community sentence as punishment for his offence.

The community sentence requires Adam to complete unpaid work for 5 hours, three days a week and to attend an alcohol awareness programme. He is currently working with other offenders to help repair damage to a local library caused by vandals. Next week Adam will be tidying the garden of a community centre and rebuilding a damaged wall.

Assess whether community sentencing will prevent Adam committing another criminal offence.

(9)
Community sentencing may prevent Adam from committing a crime as he has to complete 200-hours of unpaid work (positive punishment) which is a deterrent to do it again. I also think that it will work better as it is being paired with an alcohol awareness programme as Adam was under the influence when committing the crime, which could have been the driving force behind it.

However, community sentencing doesn't keep the general public safe from the public, this is why prison may have been a better option for Adam or restorative justice. Restorative justice may help Adam as seeing the victim of his crime (the shop owner) may prevent him from reoffending (recidivism) this may also help the victim.

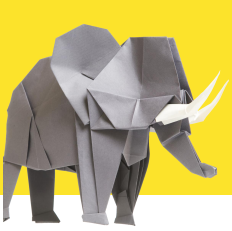


While completing his community sentencing he may observe others behaving badly (aggressively) - SLT, this is shown in Bandura's study when young children copied/replicated a model's behaviour, the results showed that children do copy models of same sex. This could apply to Adam when seeing criminal 'role models' and wanting to copy them to gain a reputation.

This candidate has achieved Level 2 in their response, being awarded 5 marks.

AO1 shows some isolated understanding of community sentencing, but this was quite limited and lacked depth or breadth of detail. There is some relevant AO2 where the candidate attempts to link to the scenario, but this is not always relevant to the points they have made. AO3 is mostly relevant but is not always making a sustained assessment of community sentencing in terms of reoffending.

This response would be improved in terms of AO1 if the candidate had provided more thorough breadth and detail, with greater accuracy, about community sentencing to demonstrate understanding beyond Level 1. There is little independent understanding shown and for higher levels the candidate would need to show that they can accurately and thoroughly demonstrate understanding of this form of sentencing. The AO2 shows Level 2 application, for Level 3 the application would require sustained links to the stimulus material to develop their points throughout their response. The overall lack of breadth given by the candidate disadvantages them in application of concepts as there is insufficient content in their response for them to develop their application fully. For AO3, the candidate would need to give more developed assessment points to achieve beyond Level 2. For example, to reach Level 3 they could include evidence about the success rates of community sentencing, or research that exemplifies this, as they have done with their use of Bandura, where they are assessing a problem with community sentencing.



*12 Adam lost his job when the company he worked for closed down. He was then caught stealing a computer from a shop while he was under the influence of alcohol. He has been given a 200-hour community sentence as punishment for his offence.

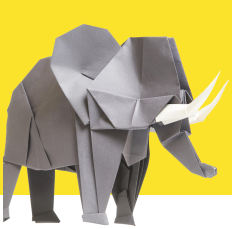
The community sentence requires Adam to complete unpaid work for 5 hours, three days a week and to attend an alcohol awareness programme. He is currently working with other offenders to help repair damage to a local library caused by vandals. Next week Adam will be tidying the garden of a community centre and rebuilding a damaged wall.

Assess whether community sentencing will prevent Adam committing another criminal offence.

// new paragraph

(9)

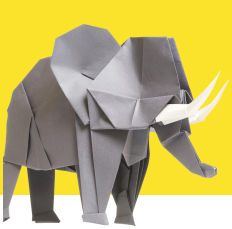
Community sentencing ~~is~~ is when you serve your punishment through ^{giving} ~~giving~~ back to the community or having to attend meetings without being sentenced to prison. Community sentencing will prevent Adam committing another criminal offence as it would act as a ^{positive} ~~positive~~ punishment but also a ^{negative experience} ~~negative reinforcement~~. This is because he is gaining a ~~punishment~~ through having to do it, however it is taking away the ~~negatives reinforcement~~ punishment of prison. Therefore he would not want to commit another crime as he would gain the same negative experience. However Adam might not think that community sentencing is that bad because he is only required to complete 5 hours of unpaid work 3 days a week. This means that it doesn't act as a punishment and he could reoffend because he doesn't mind having to do community sentencing. Therefore showing that community sentencing is not an effective punishment.



This candidate has achieved Level 2 in their response, being awarded 4 marks.

AO1 shows some isolated understanding of community sentencing, but this was quite limited and lacked depth or breadth of detail, and it features only in the first part of the essay. There is some relevant AO2 where the candidate attempts to link to the scenario, which begins around half-way into the response, although it is a little disjointed from their AO1 and AO3 content. AO3 is very limited, and consists of the final four lines of the response.

The overall lack of breadth and detail presented by the candidate is insufficient for them to develop their assessment fully and they would need to ensure more coverage to move towards higher levels. This response would be improved in terms of AO1 if the candidate had provided more thorough breadth and detail, with greater accuracy, about community sentencing to demonstrate understanding beyond Level 1. There is little independent understanding shown and for higher levels the candidate would need to show that they can accurately and thoroughly demonstrate understanding of this form of sentencing. The AO2 shows Level 2 application, for Level 3 the application would require sustained links to the stimulus material to develop their points throughout their response. For AO3 the candidate would need to give more developed assessment points to achieve beyond Level 1.



12. Adam lost his job when the company he worked for closed down. He was then caught stealing a computer from a shop while he was under the influence of alcohol. He has been given a 200-hour community sentence as punishment for his offence.

The community sentence requires Adam to complete unpaid work for 5 hours, three days a week and to attend an alcohol awareness programme. He is currently working with other offenders to help repair damage to a local library caused by vandals. Next week Adam will be tidying the garden of a community centre and rebuilding a damaged wall.

Assess whether community sentencing will prevent Adam committing another criminal offence.

(9)

Adam will not want to commit another crime as he has put work into the community and he is now apart of it and he doesn't want to destroy it.

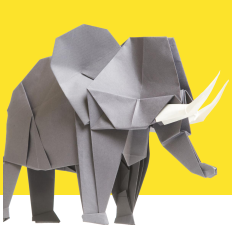
One way the community sentence will help as he is working long hours and not getting any real benefit from it.

This is negative reinforcement as they are taking his free time away and replacing it with something hard work that he gets no benefit from.

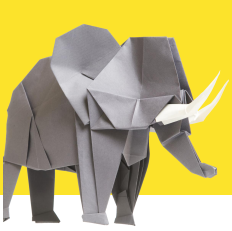
One other way this will prevent adam is he will not want to reoffend as he may find the work boring. He may also not want to do as vandals destroyed a library and he might not to commit another crime as he's experienced the other end of the crime and the overall effect it has on the people around it.

This candidate has achieved Level 1 in their response, being awarded 2 marks.

AO1 understanding is not evident in the response and there is no evidence of AO3 assessment. There is some relevant AO2 where the candidate attempts to link to the scenario, although it is disjointed and lacks relevance as there is no AO1 or AO3 content to link these points to.



Candidates should be guided towards demonstrating their understanding of the material the question is asking them for. It is important for candidates to show they know about the topic, can link this to the scenario, and can make an assessment of the relative merit/demerit of the topic. Where candidates address only one of the AO skills, they cannot achieve beyond Level 1, 3 marks, no matter how strong the performance is in that single assessment objective. It is likely that this will be mainly responses that present just AO1 understanding; however, this particular candidate has presented just AO2 application.



Sections B to F: Optional topics

Topic 9: Sleep and dreaming – Why do you need to sleep and dream?

This section will include multiple-choice, short-open and open-response questions, and one extended open-response question.

Question 27

Identify a task used in the study by Siffre (1975).

- A Counting matchsticks
- B Threading beads on a string
- C Stacking building blocks
- D Sharpening pencils

Question number	Answer	Mark
27	B	(1)

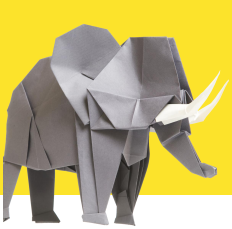
An AO1 question where candidates are required to identify the task used in the study from the four options presented in the multiple choice answers.

Candidate answer to question 27

27 Identify a task used in the study by Siffre (1975).

- A Counting matchsticks
- B Threading beads on a string
- C Stacking building blocks
- D Sharpening pencils

The candidate achieved 0 marks as the correct response was B, threading beads on a string.



Question 28

State what is meant by a 'zeitgeber'.

Question number	Answer	Mark
28	<p>One mark for accurate understanding of zeitgeber.</p> <ul style="list-style-type: none"> An external cue that regulates bodily rhythms (1) <p>Accept any other appropriate wording.</p>	(1)

Candidates are required to give a statement to show their knowledge of what is meant by 'zeitgeber'. This question is an assessment of AO1 skills.

Candidate answer to question 28

28 State what is meant by a 'zeitgeber'.

A zeitgeber is an external cue which effects our internal body clock / sleep-wake cycle.

(Total for Question 28 = 1 mark)

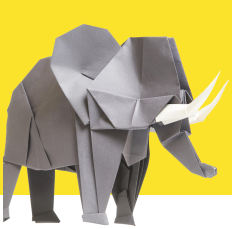
The candidate achieved one mark. The link between external cue and regulation of internal bodily rhythms was considered clear enough for the candidate to achieve the mark. Candidates should be encouraged to give accurate definitions and statements of key terminology.

Question 29

Describe how **one** lifestyle factor could cause insomnia.

Question number	Answer	Mark
29	<p>Up to two marks for understanding one lifestyle factor</p> <p>For example:</p> <ul style="list-style-type: none"> One lifestyle factor is shift work where someone works unsociable hours during the night (1) so they may find it difficult to get to sleep during the day despite being tired (1). <p>Accept any other appropriate response.</p>	(2)

This question targets AO1 understanding of a factor that could cause insomnia. Candidates are required to give a developed point to achieve two marks for this question.



Candidate answers to question 29

29 Describe how **one** lifestyle factor could cause insomnia.

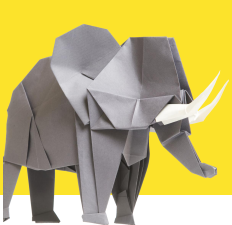
Frequent flying/jet lag can cause insomnia as it affects the sleep cycle. The body clock may find it hard to find the right time to sleep which can eventually cause insomnia.

This candidate achieved two marks. They have described in sufficient detail the factor of frequent flying being linked to jet lag and the sleep-wake cycle, with difficulty in sleeping at the right times being connected to insomnia.

29 Describe how **one** lifestyle factor could cause insomnia.

A lifestyle choice that can cause insomnia is ~~jet lag~~ working shifts and when you have to constantly change from working nights and then days, your body clock doesn't have a chance to adapt and set the rhythms causing them to be awake when they want to sleep from shift work.

This candidate achieved two marks. They have described in sufficient detail the factor of shift-work being linked to working at night and the sleep-wake cycle, with difficulty in adjusting sleep patterns causing people to be awake when they want to sleep.



Question 30

Malcolm is 16 years old and recently started at a sixth form college where he does not know as many people as he did in his previous school. He has been having a dream about being sent to an island with strangers where he cannot escape from people watching him.

Explain, using dreamwork, why Malcolm could be having this dream.

Question number	Answer	Mark
30	<p>One mark for identification of why the dream occurs. One mark for reasoning/justification through concepts.</p> <p>For example:</p> <ul style="list-style-type: none">Starting a new college may be worrying for Malcolm as there are lots of new people and situations (1) so dreamwork transforms the latent fear of college into manifest content of being watched on the island of strangers (1). <p>Accept any other appropriate response.</p>	(2)

In an 'explain' question, candidates are required to justify the point that they make. Here, candidates are required to identify what may be happening to result in Malcolm having this dream. They should then justify, using dreamwork, the nature of how or why this dream is occurring.

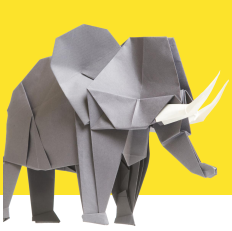
Candidate answer to question 30

30 Malcolm is 16 years old and recently started at a sixth form college where he does not know as many people as he did in his previous school. He has been having a dream about being sent to an island with strangers where he cannot escape from people watching him.

Explain, using dreamwork, why Malcolm could be having this dream.

Dreamwork is the where the dream has a meaning of something else, the and that represents it therefore the island is an unfamiliar place which could represent the new school and strangers are all the new people at his school.

This candidate achieved one mark for their AO2 application of understanding about why the dream occurs. They did not achieve the AO3 mark here as their use of dreamwork is not sufficient to provide reasoning or justification of why the dream occurred.



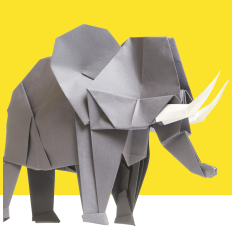
Question 31

Nadiya is a doctor in a local hospital where she regularly works long hours, including day and night shifts and on-call duties. When she is concentrating on a task that takes a long time, Nadiya finds that she becomes distracted and can lose attention every 90 to 120 minutes, so she has to take a break.

Explain, using ultradian rhythms, **one** reason why Nadiya may need a break every 90–120 minutes.

Question number	Answer	Mark
31	<p>One mark for demonstrating accurate understanding of relevant concept selected.</p> <p>One mark for exemplification of how the concept can be used to explain the scenario.</p> <p>For example:</p> <ul style="list-style-type: none">• Cycles of alertness can be a result of ultradian rhythms of activity and rest that take place during a 24 hour period while we are awake and asleep (1) so Nadiya will feel the need to rest during her time at work as a result of her ultradian rhythms affecting brain wave frequency cycles every 90-120 minutes (1). <p>Accept any other appropriate response.</p>	(2)

This question required candidates to show their understanding of ultradian rhythms and apply this to the scenario of Nadiya needing a break every 90-120 minutes. The first mark is awarded for the AO1 understanding of ultradian rhythms, and the second mark for the AO2 application to the scenario.



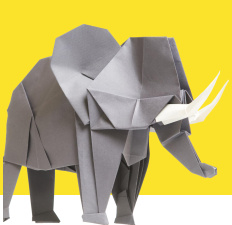
Candidate answer to question 31

31 Nadiya is a doctor in a local hospital where she regularly works long hours, including day and night shifts and on-call duties. When she is concentrating on a task that takes a long time, Nadiya finds that she becomes distracted and can lose attention every 90 to 120 minutes, so she has to take a break.

Explain, using ultradian rhythms, **one** reason why Nadiya may need a break every 90–120 minutes.

~~Ultraadian~~ ultradian rhythms are rhythms that last less than 24 hours and can include the sleep-wake cycle therefore as she works long hours and shifts she her sleep-wake cycle "is off" and she needs to take breaks as "she is tired"

This candidate achieved one mark. Their point about an ultradian rhythm lasting less than 24 hours was awarded AO1 for an accurate understanding. However, the AO2 application to the scenario is not accurate as the candidate has talked about shifts and being tired rather than application to an ultradian rhythm.



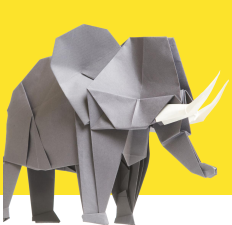
Question 32

Anton is planning to test the effect of light on the sleep-wake cycle. He will spend ten days in a dark cave with no access to daylight or external cues that would indicate if it is night or day in the outside world. He will record the time he spends awake and asleep.

Explain **one** strength and **one** weakness of Anton's study.

Question number	Answer	Mark
32	<p>One mark for each identification of a strength and a weakness (maximum two marks). One mark for each justification, which must be linked to the strength or weakness identified (maximum two marks).</p> <p>For example:</p> <p>Strength</p> <ul style="list-style-type: none">• All external zeitgebers can be controlled when he is in the cave to prevent them influencing Anton's sleep-wake cycle (1) so the study will be an accurate test of the influence of zeitgebers on his sleep-wake cycle as extraneous variables can be controlled (1). <p>Weakness</p> <ul style="list-style-type: none">• Anton is only spending 10 days in the cave which may not be sufficient time for his sleep-wake cycle to alter enough to measure changes (1). This may reduce the validity of the results as the findings may not show the long-term effects of zeitgebers on a sleep-wake cycle (1). <p>Accept any other appropriate response.</p>	(4)

The question assesses AO2 application of understanding to the scenario and AO3 justification of the points, in this case justifying one strength and one weakness of the study conducted by Anton.



Candidate answer to question 32

32 Anton is planning to test the effect of light on the sleep-wake cycle. He will spend ten days in a dark cave with no access to daylight or external cues that would indicate if it is night or day in the outside world. He will record the time he spends awake and asleep.

Explain **one** strength and **one** weakness of Anton's study.

Strength:

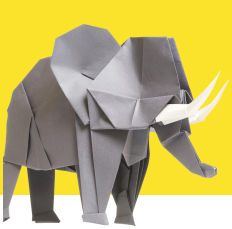
Helps us understand the sleep-wake cycle and the affect that zeitgebers and external cues have on it.

Weakness:

10 days is a short amount of time to monitor and therefore his results may not be generalisable to longer periods of time.

This candidate achieved zero marks. Their first point about zeitgebers is copied from the scenario and is not giving a strength of the study.

The second point begins to identify a weakness but could be better developed to demonstrate what is being monitored or why it is a short period of time to do this in. The point about generalisability could again be further developed to achieve a mark; for example, that the results about the effect of light on sleep do not represent what happens when someone is without light for more than 10 days.



Question 33

Fernando is investigating brain activity during sleep. He monitors the brain waves of participants during their stages of sleep and records the increases and decreases in activity. Fernando also observes the participants' movements during their sleep and records this alongside their brain wave activity.

Fernando believes that his findings will help support the Activation Synthesis Theory of how and why people dream.

Assess whether Activation Synthesis Theory can explain the process of dreaming in Fernando's study.

(9)

AO1

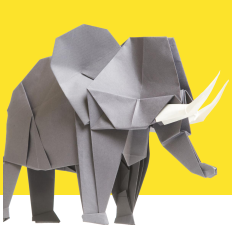
- During REM sleep neurons are randomly activated creating messages
- The brain blocks all sensory input and physical movement so the only information is from within the brain
- Dreaming is the brain making sense of the random messages that have been activated during this time

AO2

- Fernando will not be able to ask participants whether they did dream during the time of brain activation as they will not be aware of the times of their dreams
- Monitoring brain waves will help Fernando gather evidence for random activation of neurons in his participants
- Recording the participant physical movement will indicate when the brain has inhibited movement which he can match to brain wave activation

AO3

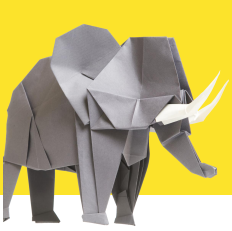
- Freud (1900) claims dreams are a form of wish fulfilment and have meanings that can be interpreted and not just neuron activation.
- Activation Synthesis Theory can only explain the formation of dream states and not what purpose dreams have in human brain processing or functioning.
- Scientific methods such as an EEG can be used to record objective data about brain waves during sleep which gives credibility to Activation Synthesis explanations of dreaming.



Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none">• Demonstrates isolated elements of knowledge and understanding of a limited range of psychological ideas (AO1).• Provides little or no reference to relevant psychological ideas related to the context (AO2).• Limited attempt to deconstruct relevant psychological ideas. Limited consideration of supporting/refuting evidence, leading to generic judgements (AO3).
Level 2	4–6	<ul style="list-style-type: none">• Demonstrates mostly accurate understanding of some relevant psychological ideas (AO1).• Provides some reference to relevant psychological ideas related to the context but this may be limited or lack relevance at times (AO2).• Deconstructs relevant psychological ideas using mostly logical chains of reasoning. Some consideration of supporting/refuting evidence, leading to a judgement (AO3).
Level 3	7–9	<ul style="list-style-type: none">• Demonstrates accurate and thorough knowledge and understanding of relevant psychological ideas (AO1).• Provides sustained reference to relevant psychological ideas related to the context (AO2).• Deconstructs relevant psychological ideas using logical chains of reasoning. Sustained consideration of supporting/refuting evidence, showing an awareness of competing arguments, leading to a judgement (AO3).

This question is an 8-mark extended essay question that requires candidates to assess a given component of the specification, in this case whether or not activation synthesis can explain the process of dreaming in Fernando’s study. Candidates should draw on the scenario material about Fernando’s sleep study, such as monitoring brain waves, brain activity changes, or movements of participants, so that they can apply their understanding of activation synthesis and dreaming in this specific context. This question is marked using a levels-based mark scheme, where candidates are required to demonstrate skills across all the assessment objectives of AO1 knowledge and understanding, AO2 application to the stimulus and AO3 assessment.

Centres are directed to review pages 3 and 4 of the ‘Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Psychology (1PSO) Sample Assessment Materials’ (Pearson Education Limited, 2017) for detailed information about the application of levels-based mark schemes.



Candidate answers to question 33

33 Fernando is investigating brain activity during sleep. He monitors the brain waves of participants during their stages of sleep and records the increases and decreases in activity. Fernando also observes the participants' movements during their sleep and records this alongside their brain wave activity.

Fernando believes that his findings will help support the Activation Synthesis Theory of how and why people dream.

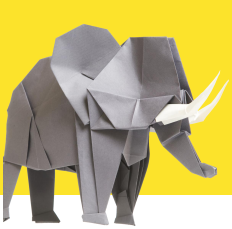
Assess whether Activation Synthesis Theory can explain the process of dreaming in Fernando's study.

(9)

Activation Synthesis is the theory that dreams are the result of the brain firing random neurons and then making sense of the ~~message~~ messages fired. The theory states that during REM sleep we experience movement inhibition, random activation and sensory blockade.

Activation Synthesis could explain the process of dreaming in ~~Fernando~~ Fernando's study because he is ~~being~~ scientifically finding out the brains activity when we are asleep. This would mean that he would be able to tell whether neurons are fired when we dream. Therefore showing that activation synthesis is a reliable explanation of how and why people dream because it is objective.

However Hobson, in a later discovery, ~~he~~ suggested that dreams do have meaning, which shows the activation theory didn't stand the test of time. Even though Fernando is gathering objective results activation synthesis might not be able to explain ~~to~~ the process of dreaming because the neurons that are fired might



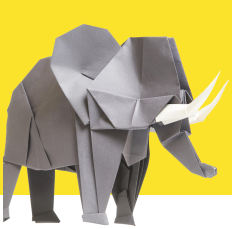
not be random. This is because our dreams often link to things that have happened during the day, ^{showing} ~~meaning~~ that they do have meaning, which then supports Freud's theory of dreamwork.

Freud's theory of dreamwork was that our repressed thoughts in our unconscious mind are ~~leaked~~ leaked out in our dreams. He believed our dreams had a manifest content (what the dream was) and a latent content (the underlying meaning of the dream).

This candidate has achieved Level 2 in their response, being awarded 6 marks.

AO1 shows mostly accurate understanding of activation synthesis theory, sleep and dreaming, but this lacked depth or breadth of detail and is only evident in the first paragraph of the essay. There is some relevant AO2 where the candidate attempts to link to the scenario, but this is not sustained and is only evident in the second paragraph of the essay. AO3 is mostly relevant and somewhat logical but does not make a sustained assessment of activation synthesis, sleep or dreaming. The points made about Hobson's later research, the objective data Fernando gathers and Freud's dreamwork do not demonstrate full consideration of how or why these points form an assessment of the process of dreaming as tested by Fernando.

This response would be improved in terms of AO1 if the candidate had provided more thorough breadth and detail, with greater accuracy, there is little understanding shown and for Level 3 they would need to show that they can accurately and thoroughly demonstrate understanding of this theory. The AO2 shows Level 2 application, for Level 3 the application would require sustained links to the stimulus material to develop their points throughout their response, the overall lack of breadth given by the candidate disadvantages them in application of concepts, as there is insufficient content in their response for them to develop their application fully. For AO3, the candidate would need to connect their assessment points in a more comprehensive manner to achieve beyond Level 2. For example, to reach Level 3, they could develop their point about Freud to say how or why this is a refuting point against activation synthesis theory and/or why Fernando might be unable to address this in his study.



33 Fernando is investigating brain activity during sleep. He monitors the brain waves of participants during their stages of sleep and records the increases and decreases in activity. Fernando also observes the participants' movements during their sleep and records this alongside their brain wave activity.

Fernando believes that his findings will help support the Activation Synthesis Theory of how and why people dream.

Assess whether Activation Synthesis Theory can explain the process of dreaming in Fernando's study.

(9)

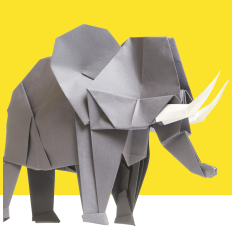
Hobson and McCarley's Activation Synthesis theory stated that while we sleep our ~~brain~~^{brain} fires random neurons (activation) and our brain then tries to make sense of these random neurons and that is how our dreams are formed (synthesis).

Fernando's study could help to support the Activation-Synthesis theory because when the increases in their brain waves happen that could be the Activation part and how the firing of random neurons is happening.

This can then help to explain it as this is evidence for the activation part and how our dreams occur.

However Fernando's study cannot explain the synthesis time and how the brain is trying to make sense of the dream because Fernando can't observe or study how the brain is making sense of the neuron as he can't see what the dream is. This is a weakness of the study - Fernando's study and doesn't help to support or explain the process of activation synthesis within the participants' dreams.

Overall the Activation Synthesis theory can therefore not

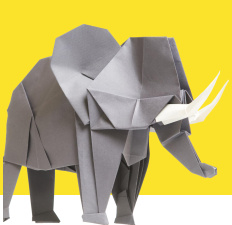


explain the process of dreaming because even though
the Activation part has some sort of ^{explanation} ~~effect~~ and
allows him to compare it to his results.
The synthesis part of the theory does not
relate or explain to fernando's study.
The Activation synthesis ~~was~~ theory is very
scientific which is therefore a strength as it ~~is~~
is reliable. However it did not stand the
test of time and was proved ~~definitely~~

This candidate has achieved Level 2 in their response, being awarded 4 marks.

AO1 shows some isolated understanding of activation synthesis theory, sleep and dreaming, but this was quite limited and lacked depth or breadth of detail, and it features only in the first part of the essay. There is some relevant AO2 where the candidate attempts to link to the scenario, but this is not sustained and is only evident in the second paragraph of the essay. AO3 is very limited, and consists of just two basic points towards the end of the essay, thus the candidate does not make a sustained assessment of activation synthesis, sleep or dreaming.

This response would be improved in terms of AO1 if the candidate had provided more thorough breadth and detail, with greater accuracy, there is little understanding of the theory being shown here, and for Level 2 they would need to show that they can demonstrate mostly accurate components of this theory. The AO2 shows Level 2 application, for Level 3 the application would require sustained links to the stimulus material to develop their points throughout their response, the overall lack of breadth given by the candidate makes the application of concepts difficult for them as there is insufficient content in their response to sustain their application. For AO3 the candidate would need to give more developed assessment points that have some element of reasoning and argument in relation to the question itself, in order to achieve beyond Level 1.



Additional information

[Specification and sample assessments](#)

Includes:-

Specification

Sample assessment material

Additional sample assessment material

[Teaching and learning materials](#)

Includes:-

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Topic guidance (includes summaries of studies)

Course planner

Mapping document

Qualification guides

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Becoming an examiner

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