



Examiners' Report January 2012

GCSE Psychology 5PS01 01

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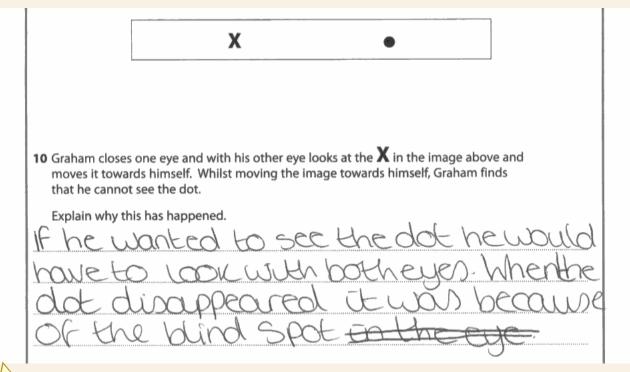
Introduction

Candidates on this unit show that they are developing a sound grasp of the principles underlying psychological methods and the topic areas covered. There are some areas where candidates generally performed well, such as identifying graphs and research methods. Other areas offered marks across a range, allowing a spread of achievement and offering able candidates the chance to shine - such as in describing communication in neurons.

This report is intended to provide future candidates and their teachers with information about how this paper was answered that will help them to work towards even better performance.

Question 10

Most candidates earned at least one mark on this question, typically by saying that it was due to the blindspot. Many candidates could also go on to explain what this meant - ie why that part of the retina is 'blind'. A significant minority of candidates attempted confused explanations relating to binocular depth cues, especially stereopsis, and tried to use fatigue to explain the phenomenon or suggested the subject was trying to see the dot through his closed eye.





This candidate's explanation is correct but is insufficient to earn the second mark for elaboration.



Try to include psychological terms in your answer, for example in this case words relating to the structure of the retina, such as 'rods' or 'cones'.

X

10 Graham closes one eye and with his other eye looks at the **X** in the image above and moves it towards himself. Whilst moving the image towards himself, Graham finds that he cannot see the dot.

Explain why this has happened.

In the	cetina,	here are	sod to	detect 1.0	nt) and
	7	colous).			, ,
	1				or rods or
	1	'		١.	eacheye.
					10 longer
over app	ig so the	e dot can't	t be seen, (Total fo	or Question 10 =	2 marks)



This candidate has enough information for three marks (although only two marks can be awarded).

No marks can be awarded for the description of the function of rods and cones, but the first mark is for identifying that there is no space for them on the retina.

The second mark is for naming this as the blindspot.

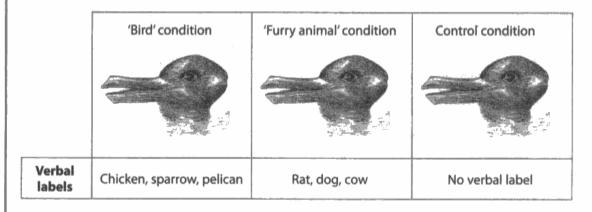
A final marking point would be possible for the comment about the importance of the blindspots overlapping when both eyes are open.

Question 11 (a)

This question was poorly answered, with candidates typically writing about the characteristics of the animals, rather than the words, for example saying *A rat and a chicken do not resemble each other*. Candidates need experience of 'being' researchers; they need to be able to consider a selection of variables that would affect stimuli such as words and pictures.

11 Khan is a student. He designed a study to find out whether verbal labels affected perception of an ambiguous figure. He used the **duck-rabbit illusion** as a stimulus. Khan randomly allocated participants to one of three groups.

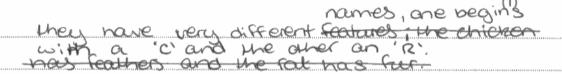
Duck-Rabbit Illusion



Khan's participants either heard the 'bird' verbal labels, or the 'furry animal' verbal labels, or no verbal labels. The participants then had to say what they could see when they were shown the duck-rabbit illusion. Khan recorded whether they answered 'duck', 'rabbit' or 'no animal'.

(a) When Khan chose verbal labels in the two conditions (such as 'chicken' for birds and 'rat' for furry animals) he didn't match the words very well.

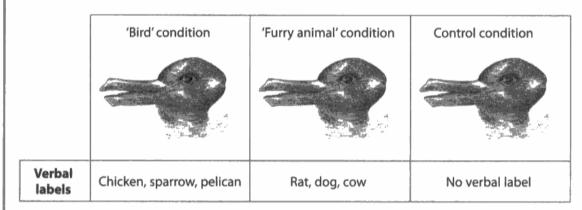
Suggest one reason why the words 'chicken' and 'rat' were not well matched.





The answer this candidate has given earns the mark, although this is one of the least significant differences. The length of the word or the number of syllables is generally more important in matching stimuli for experiments. 11 Khan is a student. He designed a study to find out whether verbal labels affected perception of an ambiguous figure. He used the **duck-rabbit illusion** as a stimulus. Khan randomly allocated participants to one of three groups.

Duck-Rabbit Illusion



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(a) When Khan chose verbal labels in the two conditions (such as 'chicken' for birds and 'rat' for furry animals) he didn't match the words very well.

Suggest one reason why the words 'chicken' and 'rat' were not well matched.

because chucken has feathers and rats dark have long ears



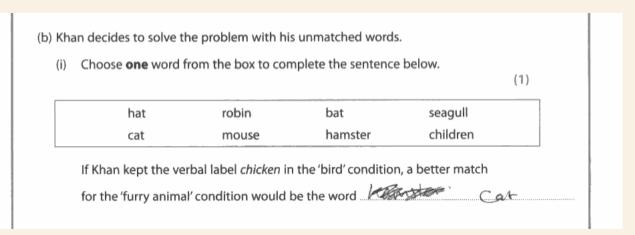
This candidate has made two errors. Firstly, they have not followed the instruction to say why the **words** were not well matched. Secondly, they seem to be making a comparison between *chicken* and the ambiguous figure, rather than *chicken* and *rat*.



When you are doing an experiment in class, think of yourself as a psychologist. What problems might you find? How could you solve them?

Question 11 (b) (i)

This question was answered very well, with almost all candidates scoring the mark. A few erroneously chose a matching *bird* word and a small number did not choose a word from the box.





This was a possible correct answer, and one of the most common. Even though it began with the same letter as *chicken*, few candidates identified this in part 11a.



Remember that for one-word answers, only your first (not crossedout) answer will be marked. In this case, *hamster* would also have scored the mark but if the candidate had written *robin* then changed their mind and written *cat* **without** crossing out their first answer, they would not have been given the mark. (b) Khan decides to solve the problem with his unmatched words.

(i) Choose **one** word from the box to complete the sentence below.

(1)

hat	robin	bat	seagull
cat	mouse	hamster	children

If Khan kept the verbal label *chicken* in the 'bird' condition, a better match

for the 'furry animal' condition would be the word \\Quad \Quad \Q



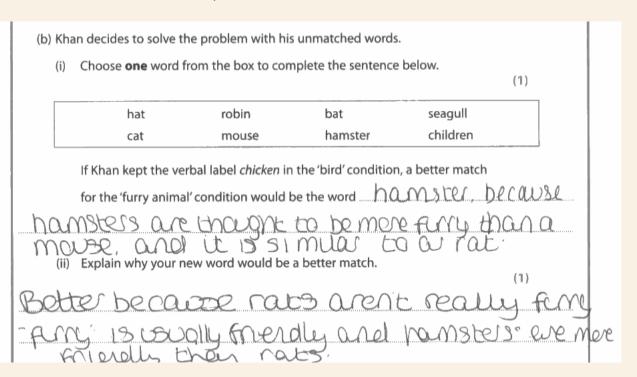
This was the most appropriate choice of word for the answer, as hamster has the same number of letters as chicken and the same number of syllables.



When there is a choice of answers, you must select from the items given. Candidates who offered an entirely different animal word here, scored zero.

Question 11 (b) (ii)

Most candidates earned marks on this question by making comparative comments such as the hamster is more furry than the rat, or less dirty. Simply observing that, for example, cats are furry was not sufficient, as rats have fur too. Another acceptable comparison was that cats and chickens are both kept on farms.





The mark was awarded here for the comment hamsters are even more friendly than rats, as this makes a direct comparison.



Note that examiners can only give credit to answers that are in the correct answer space, unless you as the candidate clearly indicate otherwise (eg by a star or a big arrow!). In fact, although what the candidate has written looks like a good answer to 11bii, it would not have earned a mark anyway, as it is comparing *hamster* with mouse rather than hamster with rat.

			(1)
hat	robin	bat	seagull
cat	mouse	hamster	children
(ii) Explain why your	new word would be	a better match.	
(ii) Explain why your	new word would be	a better match.	(1)
(ii) Explain why your	new word would be	a better match.	oking (ike t



Cats and chickens are similar in size, so this is a reasonable comment and earns a mark. It is important that there is a comparison so that it is clear why 'rat' was an inappropriate match. This candidate makes that clear with their final comment.

Question 11 (c)

There was a tendency for candidates to describe the control group, rather than to explain its function. Such responses did not answer the question, so scored no marks. Where candidates did earn marks, it was typically just for stating that it was a control condition. Few candidates understood the role of a control group in an experiment, as a baseline for comparison to an experimental condition.

(c) Explain the purpose of the 'no verbal label' group. they can find out if they find another annal ead of from on option.



This answer describes the reason for conducting a pilot study - that is, to see what possible responses are given by participants - rather than the role of a control group.



When there is a simple answer - such as in this case it's a control group - always say that first, using a term if you know one, or just by explaining.

For example, an answer saying it compares labels to no labels to see if people are biased, would still earn a mark.

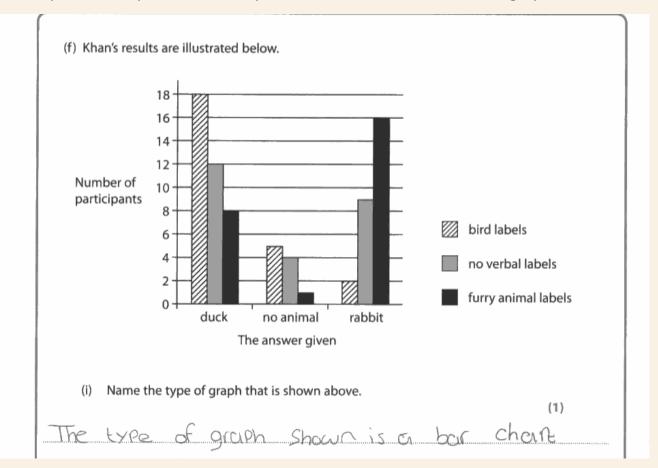
(c) Explain the purpose of the 'no verbal label' group. The 'no verbal label' group was a control group used by Khan, this is so when he looks at results he can see weather or not the labels affected the perephon.



One mark is earned easily here for saying that it is a control group. The second mark is gained for the statement implying a comparison between verbal label and non-label groups, by using the expression whether or not. This comparison to a baseline is central to the purpose of any control group.

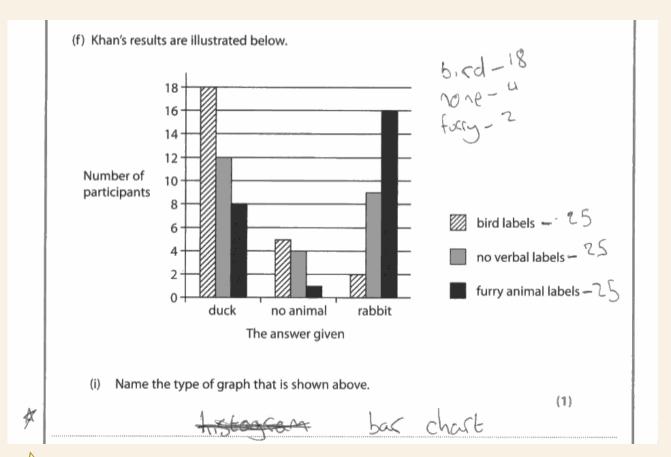
Question 11 (f) (i)

Most candidates earned the mark here, giving acceptable answers of *bar chart*, *bar graph* or simply *bar* (since the question asks for the *type of graph*). A small proportion misinterpreted the question and responded with information from the graph, such as *duck*.





Note that although in a question requiring a single term only the first term given is marked, the words in a sentence leading up to the correct answer are ignored. *Bar chart* earns a mark here, even though it is not the first thing on the line.





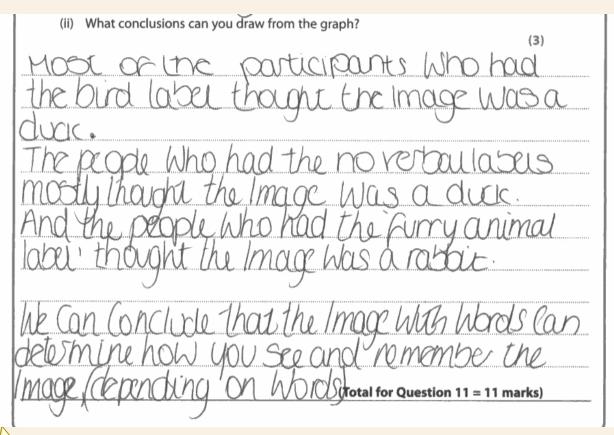
This candidate's first attempt *histogram* was incorrect and they earned the mark for *bar chart* because their first answer had been crossed out.



See how this candidate has used the space around the graph to count up the totals. This is a sensible thing to do, to help you to understand the data and make useful comments.

Question 11 (f) (ii)

Many candidates were readily able to extract information from the graph accurately and gained three marks easily. Others misunderstood the graph, and created the idea the participants had been given the word *rabbit* or *duck* and were required to state whether it was a bird or a furry animal. Such answers typically scored no marks. Other candidates chose to describe the graph, rather than to interpret it, suggesting that the notion of a conclusion was not clear to them.





There are three separate conclusions from the data here, each of which earns a mark.

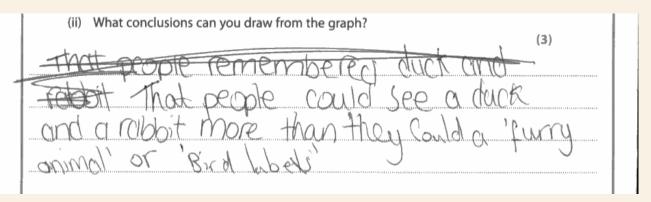
The use of *most* to indicate which is the largest group, or *more*, is critical to explaining what the graph shows and the candidate identifies the two key points, one for each verbal label condition.

Between these two points, the candidate also identifies that even in the absence of labels, a duck was more commonly seen in the ambiguous figure.

There is another marking point at the end for the conclusion but the candidate has already reached the maximum mark.



On questions such as this where there are several marks, try to write at least one more point than available marks if you have time.





It is important for candidates to understand that in a bar chart, the IV is plotted on the x-axis. This would have avoided errors such as this one where the candidate thought that the participants were responding with the verbal labels.

Question 12 (a)

This question elicited a wide range of responses, including some excellent ones. However, a minority of candidates left the question blank and many were unable to distinguish between the Gestalt theory and Gregory's. Even some good answers contained errors of this kind.

Some candidates also offered evaluative answers, rather than descriptions, so could not earn credit here. However, there were also many candidates who gave excellent descriptions of Gregory's explanations for illusions, such as the Muller-Lyer and Ponzo.

12 (a) Describe Gregory's theory of illusions.

(4)

Gregorys theory of illusions is based on monocular depth cues such as supervisposition, relative size and also size constancy which means he perceive an object as the same size even when its distance from us changes. It can explain distortion illusions such as the ponzo illusion whereby the top bour is scaled up as it is seen purther anay than the bottom bour. Also, we interpret illusions as if its contents were cues to depth and then (mis) cupply constancy scaling and distort our triggests that the depth in an image/illusion end the Hering illusion using the one of linear perspective where the 2D image can be perseived as a 3D scene - this is more common when we view angular lines end the muller-lyer illusion representing the invide and outside corners of a room/ building (according to Gregorys perspective theory)



This candidate offers more than enough description for full marks.

They correctly identify the importance of monocular cues and provide good elaboration by explaining how size constancy works - in addition to a list of cues.

Then, they use this to give an explanation of how Gregory's theory accounts for the Ponzo illusion.

The candidate makes a further general point about the misapplication of constancy scaling being central to explaining illusions.

They further state that linear perspective can explain the Hering illusion. This is true, but the candidate does not say how, and so cannot earn a mark here. The comment about 2D images being interpreted as a 3D scene is also correct and would be creditworthy, had they not already earned that marking point at the beginning.

Finally, they say appropriately how Gergory's theory likens the Muller-Lyer illusion to the inside and outside corners of a room - this would be a fifth marking point.

(4)

Gregory's theory of Illusions states that he thinks that we have all to an idea in our to minds that will make us see what we see in an Illusion. This idea then effects the result of an Illusion. Illusions which are used to test this theory are the muller lyer when we are presented with this illusion. We percieve the bottom shape to be be longer and therefore closer to us as the Gregory says that we see this as a corner of a room of therefore clouding the reality that both lines are infact the same.



In the first part of this answer the candidate attempts to explain Gregory's idea of 'perceptual hypotheses'. This is a complex idea and beyond the scope of GCSE, although with just a little more detail this candidate would have scored a mark for their explanation, as it is appropriate here.

In their account of the Muller-Lyer illusion, this candidate mainly describes the illusion and although they mention the corner of a room, this alone is not sufficient. However, their diagram makes it clear that they understand Gregory's explanation and they earn a mark here.



Although a diagram will rarely automatically earn marks, sometimes drawing one can help you to explain what you mean.

Question 12 (b)

Some candidates left this question blank but many were able to offer at least simple statements, such as *Gregory's theory can explain distortions well* or *Gregory's theory is not so good at explaining fictions*.

Others took their answers a stage further and compared the theory to Gestalt, saying which was better at explaining different kinds of illusions. However, many answers were too general, making blanket statements such as *Gregory's theory* **cannot** *explain ambiguous figure/fictions*, so did not earn marks. A small number of candidates mistakenly evaluated the Gestalt theory, so did not earn credit.

(b) Evaluate Gregory's theory of Illusions.

Include both strengths and weaknesses in your answer.

Gregorys theory has strengths: It can explain distribition theory here strengths: It can explain distribition theory well e.g. ponzo illusion / hering illusion. Also the Necker cube can be explained - the illusion of two cubes goes away with additional cue of superimposition.

The theory also has heaknesses - it can't explain ambiguous illusions e.g. kulins vaxe illusion as well as Gestalts theory does, furthermore, fiction illusions can't be explained as well as Gestalts theory.

Ainally, the muller-lyer with circles can't be explained as circles don't provide cues to depth so this illusion shouldn't wake but it does. (Eirles can't iepnesent inside/autride corners of a building)



This candidate initially correctly states the first point on the mark scheme and earns a mark. They then give the Necker cube example, which has some explanation, so they earn another mark.

The comment *can't explain ambiguous figures* is too prescriptive to be creditworthy but with the example is sufficient to earn a mark, especially with the comparison to the Gestalt theory about Rubin's vase.

The comment about fictions and Gestalt would be creditworthy but they have already earned a mark for the same point about ambiguous figures, so it is not credited here.

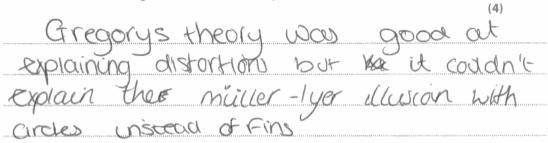
Finally, they reach the maximum mark for their observation that the Muller-Lyer with circles cannot be explained. Note it has both strengths and weaknesses, so can access all 4 marks. There is then an additional possible marking point, for elaboration for the explanation of the 'circles' of Muller-Lyer.



In an evaluation question you might find it helpful to structure your answer into 'strengths' and 'weaknesses' as this candidate has done. Often you cannot earn full marks unless you have at least one of each.

(b) Evaluate Gregory's theory of illusions.

Include both strengths and weaknesses in your answer.





This short answer earns two marks, one for saying Gregory's theory is good at explaining distortions (a strength) and the second for observing that it has a weakness - it can't explain the Muller-Lyer with circles.

With the addition of a comparative comment that *Gregory's* theory is good at explaining distortions... compared to... and another explaining that it is precisely the absence of the fins that matters, it would have earned full marks.



In longer questions, try to explain the reasons behind the statements you make. That way you can earn extra marks for 'elaborating' your answer.

Question 25

This was a band-marked question. Candidates could focus just on synaptic transmission in their answer or take a wider perspective of the whole process of neural transmission.

Some candidates gave excellent answers and many included appropriate, accurately labelled diagrams. Many answers gave an acceptable, if brief, description of part of the process. However, there were some common mistakes. These included the idea that neurons travel around the body (to and from the brain, in the blood or behind the eyes), that neurotransmitters travel down the axon and that dendrites release neurotransmitters.

25 Neurons are the cells that make up our nervous system and communicate with one another to send messages around the brain and body.

How do neurons communicate with one another?

You can use a diagram to help you explain your answer.

ENEUROS have many parts, including

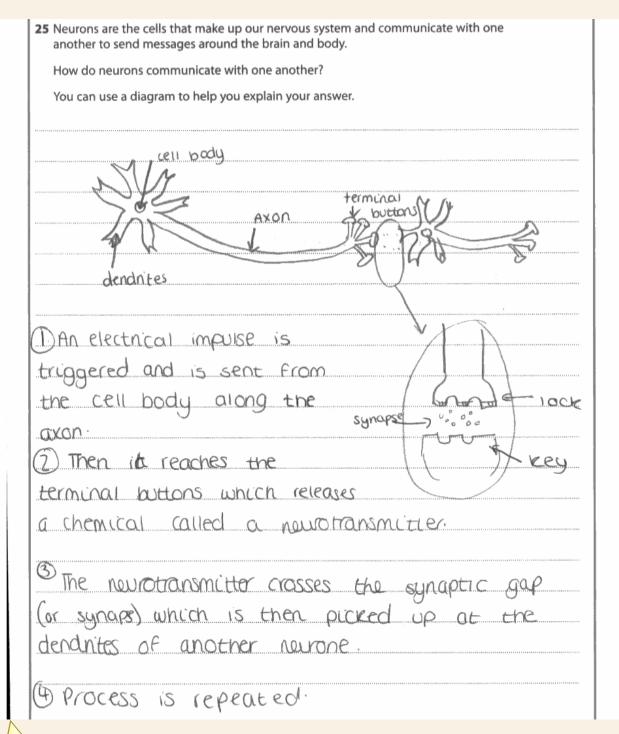
the dendrites the terminal branches/buttons,

the axon, the nucleus and a synapse inbeture
each neuro. The information goes from the
nucleus at me end of the neuron, sends
a neure—implie impulse through the axon
the reaches the denalutes and terminal
buttons. A neuron transmittor goes from one
neuron to the neut crossing synapsic
gaps each time it gets to and
end of a neuron. It is at the denalutes
the message is recieved, to before that
the nerve impulse goes up the terminal
branches, and then it recenes the



The description at the beginning of this answer does not earn credit in itself, but it is useful because it indicates that the candidate has some understanding of the structure of the neuron - although later it becomes apparent that this understanding is muddled.

The candidate makes a couple of errors (that the dendrites are at the bottom of the axon and implying that the same neurotransmitter molecules travel through each neuron). Nevertheless, they clearly demonstrate that they understand the process of communication, placing the answer in the middle band and earning three marks for being *partially accurate*.





This is a good answer. It makes many accurate points and although it is not perfect, it is more than adequate for full marks.

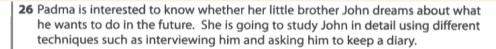


For biological processes like how neurons work, it may be helpful to learn a numbered sequence. In this paper (unlike Unit 2), there are no marks allocated for the quality of your written work, so it is acceptable to use numbers in a longer answer like this.

Question 26 (a)

The majority of candidates were able to identify correctly Padma's use of the 'case study' method although a range of incorrect answers was offered, suggesting that candidates were unaware of the difference between a research method and techniques used in psychoanalysis for collecting data.

The only correct answer here was *case study*, any other response - such as *dream analysis*, *repeated measures*, *diary method* or *free association* - was incorrect. The correct response was a single term, therefore if the candidate had written several responses, the mark could only be awarded if *case study* was the first.



(a) What is Padma's research method?

(1)

Padma's research method is gathering real life to in-death information - A case Study



Examiner Comments

The description given at the beginning of this answer is ignored, since it relates to case studies. The candidate earns the mark for *case study* at the end of the second line.

26 Padma is interested to know whether her little brother John dreams about what he wants to do in the future. She is going to study John in detail using different techniques such as interviewing him and asking him to keep a diary.

(a) What is Padma's research method?

theam an

(1)

12 Case Study Dream Analysis



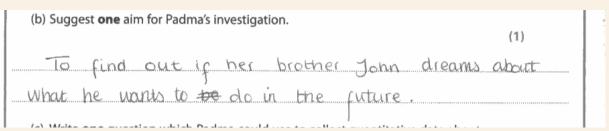
Unfortunately, this candidate had been correct with their first answer but had crossed it out. The first uncrossed out answer is marked, and in this case, it is incorrect. If an answer has been crossed out and there is no alternative given, the crossed out answer would be marked.



Learn what possible answers there are to questions such as *What* research method is being used? (an experiment or a case study) and for experiments *What experimental design is being used?* (independent groups or repeated measures). That way, you have a 50-50 chance of getting the answer right even if you guess!

Question 26 (b)

Candidates responded well to this question, many giving a detailed answer containing reference to both dreaming and its relationship to future plans. It was acceptable to present this aim in either general terms, or to relate it to John, and to use wording taken directly from the question stem.





This is a typical correct answer. Interpretations of the *future* including *what he wants to do* or *what he wants to be* in the sense of *when he grows up* or *for a job*, were entirely acceptable.

(b) Suggest one aim for Padma's investigation.

(1)

She Should keep truck of timing and days of the deams



This candidate appears to have misunderstood the meaning of the 'aim' in psychological research and has described what Padma should aim to do to make her research effective. As the term 'aim' has a very specific meaning with regard to the purpose of a case study, the candidate has not answered the question, so cannot earn marks.



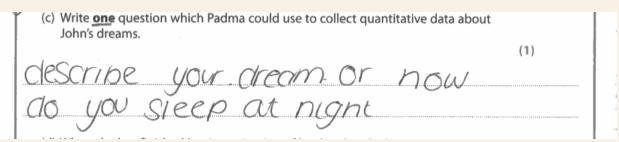
When you learn about studies in psychology, try to lay out your notes so that you can see what counts as the 'aim', the 'procedure' and the 'findings' (the 'results' and 'conclusion'). This will help you when you answer questions about each individual study, as well as general questions like this one.

Question 26 (c)

Many candidates answered this question well, offering closed questions that would produce yes/no answers such as *Do you dream about your future?* and *Did you dream last night?*.

Other suggestions offering different types of closed responses included *How long did you sleep for?* and *How many dreams did you have?*.

Many of the candidates' responses, however, were ambiguous. The questions suggested could have been interpreted as either closed or open. For example, What do you want to be when you are older? This could produce a qualitative answer or could produce a closed range of jobs. In such cases, the candidate was given the benefit of the doubt and a mark was awarded if the question could have produced closed answers. It is important, however, that students are taught to distinguish clearly between the types of questions, so that they can readily tell them apart.





As this can only be read as an open question, it cannot earn a mark.

(c) Write one question which Padma could use to collect quantitative data about John's dreams.

(1)

On a scale of 1 to 10 how often do you have dreams about your Future.



This was a good answer, using a rating scale as an example of a closed question.



When you are doing practicals in class, try to 'think like a psychologist' and make up examples of questions you could ask. Decide whether each question has a fixed number of possible answers. If so, it is a closed question.

Question 26 (d)

Many candidates earned one or both marks here. However, a significant minority could not distinguish between improving reliability - by repeating a study eg by gaining more participants - and improving generalisibility - by using a greater variety of participants to widen the sample.

(d) When she has finished her investigation of her brother, Padma wants to improve the generalisability of her findings.

What could she do?

do the test again to find out if he directly about it still or telep writing in his diang.



As this suggestion is clearly about repeating the procedure on John, it cannot improve generalisability, so does not earn credit.

(d) When she has finished her investigation of her brother, Padma wants to improve the generalisability of her findings.

What could she do?

She Should from make another incestigation but this time on a dyperent Age group, where



This candidate offers three ways to vary the sample, so earns two marks.

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