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Introduction

These exemplar answers have been chosen from the summer 2017 examination series.

OCR is open to a wide variety of approaches and all answers are considered on their merits. These exemplars, therefore, should not be seen as the only way to answer questions but do illustrate how the mark scheme has been applied.

Please always refer to the specification (http://www.ocr.org.uk/Images/171732-specification-accredited-a-level-gce-psychology-h567.pdf) for full details of the assessment for this qualification. These exemplar answers should also be read in conjunction with the sample assessment materials and the June 2017 Examiners’ Report to Centres available on the OCR website http://www.ocr.org.uk/qualifications/.

The question paper, mark scheme and any resource booklet(s) will be available on the OCR website from summer 2018. Until then, they are available on OCR Interchange (school exams officers will have a login for this).

It is important to note that approaches to question setting and marking will remain consistent. At the same time OCR reviews all its qualifications annually and may make small adjustments to improve the performance of its assessments. We will let you know of any substantive changes.
Dreaming is something that we all do, regularly, yet despite this we know very little about it. Why is it that some people seem to remember their dreams more than others? Why do some people have pleasant dreams whereas others have nightmares? Perhaps what we have done in the day, or even type of foods we have eaten influence our dreams. Do we have more dreams, or less as we get older? There is clearly much we do not know. To investigate further, psychologists want to use the self-report method to find out more about dreaming.

What is a semi-structured interview?

Low level answer – 1 mark

A semi-structured interview is where... questions... are... asked... however... other things are... discussed... which... are... not... included... within the... set... questions... and... guidelines... [2]

Examiner commentary

This candidate has some basic simplistic understanding of semi-structured interviews. Reference to 'other things' lacks clarity however to gain another mark.
Question 16(b)

Briefly outline how you could use a semi-structured interview for this study.

Low level answer – 1 mark

A semi-structured interview could be used......
to ask each participant...specifically...about...
their dreams...and what happened in them......
if...they...had...a...dream...after...having...certain...
goods...Also...they...could...be...asked...about...
their dreams...before...participating...to...see...if...
there is...any...difference...therefore...a...semi-
structured...interview...could...be...used...to...it......[4]
shows the participant to discuss other things about their dreams rather than what is...on the...of questions and...guides.

Examiner commentary

This candidate was awarded 1 mark for the very last part of the answer, but it is very unclear (e.g. if new/additional questions are to be used instead of the original set).
Evaluate the use of a semi-structured interview in this study.

High level answer – 6 marks

One strength of using a semi-structured interview is that the interviewer can use follow-up questions to elicit more information about the respondents' dreams. This can provide a better insight into the respondents' everyday life and how it may affect their dreams. However, a weakness is that participants may lie about their dreams, as they may not reveal enough information through a structured interview because there are set questions. Therefore, the demand characteristics can threaten the reliability of the study, and it will therefore be more likely to give socially desirable answers.

Follow up: why lie, reduce validity, reliability

Examiner commentary

This candidate writes a good, clear response with reference to two points (a strength and a weakness) in context, and these are explicitly signposted. There is good use of supporting examples to help clarify the points made and a sophisticated understanding demonstrated (e.g. with reference to possible embarrassment as a justification for participants potentially not telling the truth about their dreams). There is a good range of key psychology terminology in this answer too.
One strength of a semi-structured interview in this study is that in-depth, meaningful data can be gained as the data gained from semi-structured interviews is mainly qualitative therefore this can gain a trusting, realistic image about the participants dreams. However, this leads to the data being more subjective which means that the validity of the study can be compromised. One weakness of a semi-structured interview in this study is that the data is most likely to not be able to be compared or replicated therefore this lowers this reliability of the study into dreaming.

Examiner commentary
This answer shows an attempt to make two evaluation points, but the second point is less clear and is unjustified and developed.
Exemplar Candidate Work

Question 17*

Explain how you would use the self-report method to investigate dreaming. Justify your decisions as part of your explanation.

You must refer to:

• sample and sampling technique
• your questionnaire
• open and closed questions
• Likert scale questions

You should use your own experience of carrying out a self-report to inform your response.

High level answer – 15 marks

In my study on dreaming, I will use self-selected sample to recruit my participants (Ps). I will do so by putting an advert near a local supermarket and this poster will say details about my study: "Looking for participants for my self-report study on dreaming. If you are interested, please call: +44... (my number)."

Self-selected sample is beneficial as it is very quick and convenient. I will just have to wait for Ps to respond to an advert to take part in my e-research on dreaming. Similarly, in my previous self-report study on driving behaviour, when I put a poster about the extra money for those taking part, Ps I and I could start preparing my questionnaires on driving behaviour while waiting for Ps to respond to an advert. This was very convenient.

My questionnaire on dreaming will include various questions both open and closed questions. I will give each participant a questionnaire and it will have a title "A questionnaire on dreaming" and 10 questions in it. I know why questionnaires as a self-report method is beneficial as it is very quick on multiple questionnaires on dreaming can be filled at once. I know
This is important as it is different from my previous self-report study on dreaming behaviour when I used interviews instead of questionnaires. As a result, he whole procedure took more than one week because each separate interview with one participant took 30 minutes.

which was very time consuming. My questionnaire will include closed questions. For example, one question is: ‘Do you remember your last night’s dream?’ and ‘Yes □ No □ (Tick one only)’.

and ‘Did you have a dream every night?’ ‘Yes □ No □ (Tick one only)’ Closed questions are beneficial because they can be statistically analysed e.g. I will use statistical tests e.g. I can use measures to compare the data I have to see what was most common answer on remembering a dream. This is different from my previous experience of self-report study on dreaming behaviour where I only had open questions so I could not easily analyse the data and tell what was the most common answer as ‘Do you have any sleep problems?’ as each response was different and qualitative.

‘Please describe your favourite dream’.

My questionnaire on dreaming will also include open questions e.g. ‘Please describe your last night’s dream’. Open questions are very beneficial as they allow me to gather more details. e.g. I will be able to know the details and contextualised dreams of my P’s.

Similarly, in my previous self-report study on dreaming behaviour, open questions such as ‘Please describe all
Techniques you used when learning how to drive? I
allowed me to find extra details such as learning
techniques my Pi is used to improve her driving skills.
This made my findings really rich by having a lot of detail in Pi's response.

My Likert scale question will be “To what extent questionnaire or dreaming will also include Likert
scale questions. For example, these questions would be

On a 5-point scale, do you agree that age brings old
makes you dream? Remember dreams worse? 

Strongly disagree Disagree Neither agree nor

agree Strongly agree

To what extent to you feel that eating a lot
at night makes you more likely to have a nightmare?

Strongly disagree Disagree Neither agree nor disagree

Disagree Strongly agree

Likert scale questions are beneficial as they allow respondents to find out how strongly they agree or disagree with
the statements on dreaming. They will prompt to the extent to which participants agree to the extent to which participants
agree.

Strongly feel about following the statements
in dreaming. This will produce ordinal data which
can be used to test e.g. Mann-Whitney test can be used to compare

on whether age affects dreaming. Similarly, this
different from my experience of self-report on driving
behaviour when the likelihood was on Likert scale questions
Examiner commentary

This candidate addresses each of the four required features (RFs) in context and makes links to their own practical investigations with every feature; “similarly, in my previous self-report study”. There is frequent use of specific examples (e.g. with citation of some of the actual questions that could be used in the research) which provides additional detail and aids clarity of the response. There is appropriate justification of all decisions made and a well-developed line of reasoning that is clear and very logically structured. So this is a good example of a top band response.
I would use the volunteer technique and ask people if they’d like to take part, whereby participants are answering the questionnaire. They will all be set on their own as from personal experience, from carrying out a questionnaire I found that when a participant was unsure of what to put for an answer, they copied another participant’s answer.

The questionnaire will provide a mix of open and closed questions as well as a mix of filler and key questions, an example of an open question would be what they do in the day since not everyone does the same thing everyday. An example of a closed question would be if they eat food on how before they go to bed and the options would be yes or no. The reason for the mix in key and filler questions is because when carrying out my own self-report the different types of media consumption in school children I found that they became aware of the aim of the questionnaire due to too many key questions and as a result their answers were biased.

A Likert scale could be used for some questions in the questionnaire for example: I often have nightmares, agree, not sure, disagree, other options to strongly agree and strongly disagree. Could be added to improve the quality of data, however, it is common for participants to choose the middle options when given any rating scale question.
Examiner commentary

This is regarded as a “basic” response and fits in the 1-3 mark band as ‘more than one of the required features (RFs) referred to but in a very brief and/or basic way’.

The actual sample is not described, and the specific details of the sampling technique is unclear (states the use of ‘volunteer technique’, but does not say what this would involve when implementing it). There is an attempt to outline some of the specific open and closed questions to be used but they are not really presented in context. The candidate also combines a discussion of the questionnaire in general with their attempt to outline some of the specific open and closed questions to be used. It is recommended that each required feature (RF) is taken in turn and addressed separately.
Question 18

Explain **one** strength and **one** weakness of using the self-report method in this study.

High level answer – 6 marks

One strength of using a self-report method is that pets are more likely to divulge the contents of their dreams due to the anonymous and confidential nature of questionnaires, and so the obtained results would be more valid than using an interview method. An interviewer’s efforts would be no use.

However, one weakness of the self-report method is that demand characteristics may compromise the validity of the results. People might answer questions differently, for example, by saying that they dreamed more than they actually did, which would put a bias on the study and make it more unaccurate than it actually is.

Examiner commentary

This candidate has included both a strength and a weakness and each clearly presented and in context of the research undertaken. This is very explicitly written so was easy to mark with phrases “one strength of using a self-report method is”.
A strength of the self-report method in this study is that it allows the participants to be
much more open & honest about their dreams as it is done privately through a questionnaire
and so the data is more likely to be more accurate & valid - this is important as dreams
are personal & private. A weakness is that the participant may not go into enough detail
in their answers and so the data may not be useful or reliable & valid. The experimenter also
has less opportunity to develop the answers/data as they are not able to ask questions or push the
participants for an answer like in an interview.

Examiner commentary

Here the candidate presents a clear strength of using the self-report method in context and justifies / elaborates on the point made. However, the weakness that is presented is not in context, briefer and much less clear with comments that are untrue / do not make sense (e.g. where they state that ‘they are not able to ask questions’), so the answer only gains 1 mark for the weakness point made, but receives the full 3 for the strength (3+ 1).
Examiner commentary

This candidate makes an attempt to explicitly identify a strength and a weakness. However, the strength explanation is unclear and ambiguous. The weakness point that this candidate makes is brief and underdeveloped. There is no elaboration on why participants may be embarrassed.

Low level answer – 2 marks

One strength of using a self-report method in this study is that gathering data is faster as participants report the data themselves, rather than the experimenter going and finding out the data by questioning each participant.

One weakness of a self-report method is that the participant may not give honest data as they may be embarrassed about their dreams. [6]
Stand to attention. An educational psychologist conducted a study to investigate if getting pupils to stand up when completing some of their work in class increased their performance by making them concentrate more. An independent measures design experiment was used testing a small group of 12 pupils. Half of the class stood up at their desks whilst completing a maths test whilst the others remained seated. The data obtained from the study is presented in the table below.

| Score on maths test (max 20) when stood up or sat down when taking the test |
|-------------------------------------------------|-----------------|
| **Stood up** | **Sat down** |
| participant | score | participant | score |
| 1 | 18 | 1 | 14 |
| 2 | 20 | 2 | 8 |
| 3 | 17 | 3 | 20 |
| 4 | 15 | 4 | 4 |
| 5 | 18 | 5 | 15 |
| 6 | 19 | 6 | 12 |

Identify two findings from the data presented in this table.

[4]
Examiner commentary

This candidate includes two findings from the data provided correctly identified and discussed in context of the research presented.
Medium level answer – 3 marks

Overall, the participants in the stood up condition did receive better scores on the maths test than the sat down condition, however, there are still high scores in the sat down condition and this could be due to an extraneous variable of a maths ability affecting the result. This could be the same for the low scores of the sat down group, their mathematical ability could have had more of an effect than their sat down/stood up condition.

Examiner commentary

The first finding is clearly identified in context, so gains 2 marks. The second finding here is unclear and not completely separate to the first finding cited. It is regarded as ‘an attempt’ so only gains 1 mark (2 + 1).

Low level answer – 2 marks

One finding from the data presented is that pupils tend to perform better and concentrate more when they are standing up rather than sitting down...

Another finding from the data presented is that pupils seem to have higher concentration levels when they are standing up compared to when they are sitting down.

Examiner commentary

The candidates receive 2 marks for the first finding stated. The second finding is really a conclusion, rather than a finding per se.
Question 20(a)

Calculate the mean for the ‘stood up’ condition and present your findings to 2 decimal places. Show your workings.

High level answer – 2 marks

\[
\text{Total of scores} = 18 + 20 + 17 + 15 + 18 + 19 = 107
\]
\[
\frac{107}{6} = 17.83
\]

Correct answer presented to two decimal places with all workings clearly shown.

Examiner commentary
Question 20(b)

Calculate the mean for the 'sat down' condition and present your findings to 2 significant figures. Show your workings.

High level answer – 2 marks

\[ \text{Total score} = 14 + 8 + 20 + 4 + 15 + 12 = 73 \]
\[ \frac{73}{6} = 12 \]

Correct answer presented to two significant figures with all workings clearly shown.

Examiner commentary
Question 20(c)

Calculate the mean percentage number of words recalled in each condition. Show your workings.

High level answer – 2 marks

\[ \text{High level answer – 2 marks} \]

\[
\text{Stood up} \Rightarrow \frac{17.83}{20} \times 100 = 89.16\% \\
\text{Sat down} \Rightarrow \frac{12.16}{20} \times 100 = 60.83\% \\
\]

Examiner commentary

Mean correctly calculated for each condition and presented as a percentage. Answer is very clearly laid out with "stood up" and "sat down" calculations on separate lines.
Question 21(a)

Explain how you would calculate the standard deviation for each condition of this study.

High level answer – 5 marks

Applying the formula: standard deviation = \[ \sqrt{\frac{\sum (X - \bar{X})^2}{n}} \]

I would firstly work out the mean of scores and take this away from each score. I would then square each of these differences and add them together dividing by the number of participants (6) and square rooting this answer. This would need to be done for each of the conditions in the study separately (stood up separately to sat down).

Examiner commentary

This response shows all the relevant steps in order to calculate standard deviation and they are clearly outlined and (importantly) are in the correct sequence. The candidate presents them in context of the research discussed.
Low level answer – 0 marks

Examiner commentary

This candidate confuses aspects of probability testing with inferential statistical tests (the use of critical values) with the calculation of standard deviation. Therefore there is nothing creditworthy in this answer.
Question 21(b)

What information would the standard deviation provide if it was calculated for the data in this study?

High level answer – 2 marks

It shows the dispersion of the conditions score around the mean. It would show that the stood up condition was more tightly clustered around the mean as the standard deviation value would have a smaller magnitude.

Examiner commentary

This answer shows a good clear response in context with use of appropriate terms demonstrating a sophisticated understanding of the concept of standard deviation.

Low level answer – 0 marks

It provide an indication of how spread the other numbers are around the median.

Examiner commentary

This response does not make sense, with the reference to 'other numbers' (what ‘numbers’? and ‘other than’ what?).
Question 21(c)

The standard deviation for each condition of this study is presented in the table below. What do these findings inform us about the effect of standing up or sitting down when performing a test?

<table>
<thead>
<tr>
<th></th>
<th>Stood up</th>
<th>Sat down</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.72</td>
<td>5.60</td>
</tr>
</tbody>
</table>

High level answer – 3 marks

It shows us that standing up gives us a more reliable score as the values are more closely clustered around the mean & (which was also higher for this group). So, it shows that if you sit down for a test, there is more likely for you to get a wider range of scores as the standard deviation is higher (at 5.6 compared to 1.72).

Examiner commentary

This response is detailed, and in context, but lacks some clarity with reference to ‘more reliable scores’.
High level answer – 2 marks

As the standard deviation... for the "sitting...down" condition is greater,
this suggests that there was... more... variation... of... the test scores... of...
participants... in this condition, compared to the "standing...up" condition.

This suggests... that... the scores of the participants... in the "standing...up"
condition... were... more... similar... and... as... the mean test...
score... was... higher... in this condition,... it suggests... participants... who... stood...
up... while taking... the test... consistently... got... higher... scores...

Examiner commentary
This response is regarded as 'an attempt' as reference to scores being higher or lower in one condition or the other is incorrect.

Low level answer – 1 mark

This shows... that... in the "sitting...down" condition,
are... much... more... widely... spread... around... the mean... indicating... a... variation... within...
result... meaning... there... are... some... which are... higher... and... some... which are... lower... proving...
that performance and concentration levels... are... significantly... higher... within... the "standing...
up... condition... than... the "sitting...down...due...to..."

Examiner commentary
This response is regarded as 'an attempt' and fits the 1-2 mark band as the candidate incorrectly makes claims that standard deviation informs us that 'concentration levels are significantly higher within the stood up condition'.
What would be the appropriate non-parametric inferential statistical test to use to analyse the data from this study? Give reasons for your answer.

High level answer – 2 marks

The Mann-Whitney U test...should...be...used...as...the...test...task...scores...of...pupils...are...interval...data...The...design...used...was...also...independent...measures...which...means...that...as...participants...were...only...in...one...condition...because...they...either...took...the...maths...test...standing...up...or...sitting...down.[2]

Examiner commentary

This candidate correctly identified the appropriate inferential statistical test with reference to at least one justifying reason (different participants in each condition) in context.
The **t**-test would work well here because we are comparing two different sets of results, allowing us to make easy comparisons. [2]
Question 22(b)

Outline how the data in this study would be ranked before using the inferential statistical test.

High level answer – 2 marks

All of the participants' test scores in both conditions would be ranked together from the smallest score to the highest. If two or more scores have the same rank, they would all be given the mean of the ranks they take. For each condition, the sum of the ranks would then be calculated separately.

Examiner commentary

This answer shows a clear acknowledgement of the process of ranking all the participants' scores together, rather than separately by condition.

Low level answer – 1 mark

The data would be ranked lowest to highest, all as one set of data, using all 12 data sets. When two sets of pieces of data are the same, they are ranked in the middle, 2 and 1 become 1.5.

Examiner commentary

In this answer the process of ranking the data is correctly outlined, but not in context (no reference to what the data relates to – maths test scores, or from what conditions – stood-up/sat-down).
Question 23

Outline **one** advantage and **one** disadvantage of having quantitative data in this study.

High level answer – 3 marks

One advantage to having quantitative data is that it is easily comparable. The scores from the stress up condition and those from the stress down condition can be easily analysed and an effect can be determined. One disadvantage to having qualitative data is that it does not provide rich data, therefore it does not show whether participants found it less stressful or how they felt during the test. Therefore the true cause cannot be discovered.

Examiner commentary

Here the advantage that is presented is discussed in context, but the disadvantage is not, and is less clear (e.g. where the candidate states that it ‘does not provide rich data’ as this is too vague). Therefore 2 marks were awarded for the advantage and one mark for the disadvantage. (2 + 1 marks).
Low level answer – 1 mark

Examiner commentary

This candidate gives a generally weak response in relation to both the advantages and disadvantages. There is some credit for the last part of the first paragraph (which is treated as an extension of the initial attempt to refer to a strength) where the candidate states the data can be ‘placed in graphs and charts’.
Question 24(a)

Outline what is meant by each of the following features of science and state how they apply to this study.

(a) hypothesis testing

High level answer – 3 marks

Hypothesis testing is where the test is designed to test the hypothesis that the effect of the independent variable on the dependent variable is being measured. For example, in this study, the hypothesis of the effect of position on concentration... [3]

Examiner commentary

This candidate writes a clear answer in context demonstrating an understanding of how hypotheses assess predictions made about the outcome of the effects of one variable (IV) on another (DV).
High level answer – 3 marks

Hypothesis testing...is...where a...fully operationalised testable statement is...
created...where...both variables are stated in measurable terms...[4]
hi[...] h[...]

This answer is a good example of a full clear response with
reference to 'testable statements' that even includes a citation of
an appropriately worded alternative hypothesis for the research
being discussed.

Examiner commentary
Question 24(b)

Outline what is meant by each of the following features of science and state how they apply to this study.

(b) manipulation of variables

High level answer – 3 marks

The manipulation of variables refers to the way in which the independent variable is changed, operationally and controlled, thus measuring an effect or difference on the dependent variable. In this study, the manipulated independent variable is whether or not the pupils are standing up or sitting down and how this affects the dependent variable of concentration, operationalised by performance on the maths test.

Examiner commentary

This is a good example of a clear answer in context with discussion of the involvement of the manipulation of an independent variable to assess the effect on a dependent variable. It is very explicitly related to the stem with the phrase “in this study”.
A manipulation of variables is where the variables of a study are changed to see how they effect the IV. (Another test scores). This applies to the study as the variables manipulated are whether or not the student is good.

Examiner commentary

This answer shows an understanding of the process of changing one variable to study the effect on another. However, does not refer directly (by name) to the independent variable in the study and not presented in context.
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