Advanced GCE Psychology

G541: Psychological Investigations - High banded Candidate style answer

Introduction
OCR has produced these candidate style answers to support teachers in interpreting the assessment criteria for the new GCE specifications and to bridge the gap between new specification release and availability of exemplar candidate work.

This content has been produced by senior OCR Examiner's, with the input of Chairs of Examiner's, to illustrate how the sample assessment questions might be answered and provide some commentary on what factors contribute to an overall grading. The candidate style answers are not written in a way that is intended to replicate student work but to demonstrate what a "good" or "excellent" response might include, supported by examiner commentary and conclusions.

As these responses have not been through full moderation and do not replicate student work, they have not been graded and are instead, banded "medium" or "high" to give an indication of the level of each response.

Please note that this resource is provided for advice and guidance only and does not in any way constitute an indication of grade boundaries or endorsed answers.

A researcher has conducted an experiment to see if people recall more words from a list of ten words when they learn and recall in the same room rather than in one room and recall in a different room. This was an independent measures design

The results were as follows:

	Recall in same room	**Recall in different room**
Number of words recalled	**9**	**2**
	8	**6**
	8	**8**
	7	**6**
	7	**7**
	8	**9**

1 (a) Suggest an appropriate null hypothesis for this experiment.

[4]

Candidate style answer	*Examiner's commentary*
There is no significant difference in the number of words recalled between those who attempt recall in the same room as they learned the words and those who attempt recall in a different room. Any differences are due to chance.	A clearly stated null with reference to both the IV and DV.

(b) identify the independent variable and the dependent variable in this experiment. **[2]**	
Candidate style answer	*Examiner's commentary*
The independent variable is the environment that recall takes place (the same room as the learning occurred or a different room). The dependent variable is the number of words correctly recalled out of ten.	Both the IV and the DV have been clearly identified, and both in the context of the source material.

2(a) What is meant by an 'independent measures' design? **[2]**	
Candidate style answer	*Examiner's commentary*
An experimental design in which different people participate in each (or all) conditions of the experiment.	This is a clear and accurate description of an independent measures design (a one mark response may have been to simply state 'where different people take part').

(b) What is meant by a 'repeated measures' design? **[2]**	
Candidate style answer	*Examiner's commentary*
An experimental design in which the same people participate in each (or all) conditions of the experiment.	This is a clear and accurate description of a repeated measures design (a one mark response may have been to simply state 'where the same people take part').

(c) Outline one strength and one weakness of using an independent measures design for this experiment. **[6]**	
Candidate style answer	*Examiner's commentary*
One <u>strength</u> of using an independent measures design in this experiment is that the same words can be used for participants in each condition, so they are just as easy, or difficult to learn. One <u>weakness</u> is that there may be individual differences in the memory ability in general between the subjects participating in each condition, regardless of whether recall is being attempted in the same or a different room as the learning occurred.	Both the strength and the weakness are discussed in the context of the research presented in the source material here.

3 Outline <u>two</u> findings that might be drawn from this data. **[4]**	
Candidate style answer	*Examiner's commentary*
One finding is that, overall, more words were recalled by the	Two appropriate findings are presented clearly here, and both in the context of information

participants who attempted recall in the same room as the learning had occurred in. Another finding is that there was a greater variation in the number of words recalled by subjects attempting recall in a different room than in the same room (with one subject only recalling two words and another recalling nine)	provided in the source material.

Section B

Answer all questions

A researcher wishes to conduct an observation of students' use of their free time in college.

4 Describe and evaluate a suitable procedure for this observation.

[10]

Candidate style answer	*Examiner's commentary*
Observations could be made in the student common room using a pre-prepared recording table of five behavioural categories. The categories could be as follows: talks with friends; listens to music; uses mobile phone; completes college work; and eats and/or drinks. Two observers could be used. One at either end of the room, each sitting on their on pretending to be reading a book. Using a time sampling technique, observations could take place each lunch hour for one week monitoring the first and last 10 minutes of the hour long period. Both observers could meet beforehand to practice use of the behavioural categories and reach agreement on what to look out for and how to record it. The location of the observation ensures a lot of students will be seen and a good variety of behaviours monitored. The use of clearly defined categories that both observers have been trained on to agree how they are used helps try to establish inter-rater reliability and make the observation more reliable. However, there would be some problems. Only one of many areas that students frequent in their free-time is being monitored, which may not be representative of how other students use their free time in	Here there is a description of an appropriate **procedure** that is detailed enough to allow replication by providing specific behavioural categories related to the specified topic of investigation outlined in the source material. For **evaluation**, two appropriate issues have been selected (reliability and validity) and discussed in the context of the theme of the investigation outlined in the source material. There is evidence of both general and specific (to the source) understanding of the selected issues.

other places around the college. Also, observations are only taking place around lunch time. Students may use their free-time differently at different times of the day so may reduce the overall validity of the findings.	

5 Describe one ethical issue that the researcher needs to consider when conducting this observation and suggest how this could be dealt with.

[4]

Candidate style answer	*Examiner's commentary*
One possible ethical issue is that of lack of prior informed consent from the students, because doing this would have made them behave less naturally. This could be overcome by putting up a poster several weeks before the observation takes place informing students that some time during the next few weeks an observational study of how students use their free time would occur and that they should make it known if they were not happy to be included (these students could then be avoided). Also, ask after the observation for permission to use the data collected.	The ethical issue is discussed clearly and in the context of the presented research. There is also a n appropriate suggestion to overcome the problem.

6(a) Explain what is meant by inter-rater reliability.

[2]

Candidate style answer	*Examiner's commentary*
Inter-rater reliability is where different observers interpret and record behaviour in the same way, or, the same observer interprets and records behaviour in the same way on two different occasions. It involves training observers in the use of the coding scheme to be used in an observation and getting them to agree on what to look out for and how to record it, so that, hopefully, each time the observation is done, it is done in the same, with each observer.	Here there is an accurate explanation of what inter-rater reliability involves, and an indication of how it can be achieved which clarifies things even more.

(b) Suggest how the researcher could ensure that this observation has inter-rater reliability.

[4]

Candidate style answer	*Examiner's commentary*
All those responsible for observing the students in their free-time should	Here there is good use of an example related to the theme of the research in the source material.

meet and practice using the behavioural categories that have been devised so that they all try and record behaviour in the same way. For example, decide what should be included for each behavioural category (e.g. what counts as 'use of mobile phone'? making calls, texting, playing games etc).	

Section C

Answer all questions

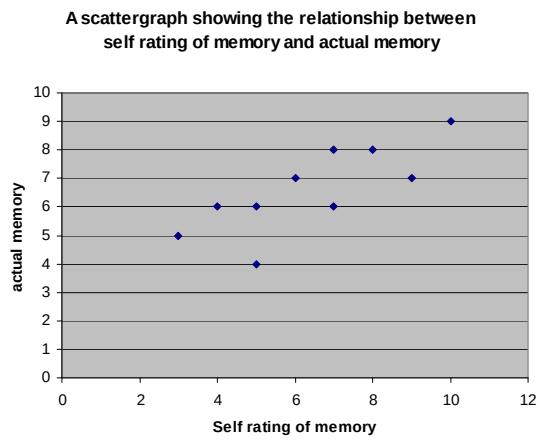
A researcher has conducted a correlational study to investigate the relationship between how good people think their memory is and how well they do on a memory test. The first variable was 'self rating of memory' and was measured by asking people to rate their memory on a 10 point scale (where 1 = very poor and 10 = excellent). The second variable was 'actual memory' and this was measured by showing them a video of a minor road accident and asking them a series of 10 eye-witness questions.

Results were as follows:

Participant Number	Self rating of memory	Score on memory test
1	3	5
2	4	6
3	5	4
4	8	8
5	9	7
6	10	9
7	7	6
8	7	8
9	5	6
10	6	7

7 (a) Sketch an appropriately labelled scattergraph displaying the results.

[4]

Candidate style answer	*Examiner's commentary*
	A clear title and clear labelling of both the x and y axes with units of measurement indicated. The scale is also appropriate and the data entered reasonably accurately (for a 'sketch'). There is also a title provided which clarifies things even further.

(b) Outline <u>one</u> conclusion that can be drawn from this scattergraph. **[3]**	
Candidate style answer	*Examiner's commentary*
In general, the higher an individual rates their memory the better it actually is (as self rating of memory increases, so does actual memory).	The conclusion is appropriate to the data in the actual scattergraph that has been produced and clearly outlined in the context of the theme of the investigation outlined in the source material.

8 Suggest <u>one</u> problem with the way 'self rating of memory' has been measured in this investigation. **[3]**	
Candidate style answer	*Examiner's commentary*
one problem is that the ten point scale for self rating of memory only has verbal indicators at either extreme (1 = very poor, 10 = excellent) and individuals may interpret this differently to one another, and be unsure what kind of memory the numbers in between refer to (e.g. what kind of memory is a rating of 7?)	The problem suggested is made clear and is in context.

9 Describe and evaluate <u>two</u> other ways in which 'actual memory' might be measured. **[10]**	
Candidate style answer	*Examiner's commentary*
Another way that 'actual memory' could be evaluated would be to simply give people 30 seconds to memorize a list of 20 words and then 30 seconds to recall them immediately afterwards. The problem with this would be that it would not be a very valid measure of memory, as we do not usually use our memories in this way, trying to remember a list of unrelated items for no real reason. However, it would be a standardized procedure allowing good levels of control so that each person could be assessed in the same way. Alternatively, people could be given a task that they think is unconnected to memory, such as reading a passage from a book to check for errors and then asked a week later how much of the content of the passage they remember (by giving them a score out of ten key things recalled correctly). In this way people would not be trying hard to do well and it would be a more	Here there are two appropriate suggestions of how other ways to measure memory that are clear enough to allow replication. The evaluation of these alternatives is clear and detailed and includes both positive and negative points with reference to appropriate issues (such as validity), all outlined in the context of the source material.

realistic (valid) assessment of their memory. However, it may be hard to standardize the scoring procedure (what counts as a ‘key thing’ remembered?).	

Overall banding: High

The responses here are clear, detailed, accurate and (where appropriate) directly related to the information provided in the source material. There is also frequent elaboration of points that adds to the clarity of response and ensures that understanding is conveyed. There is also evidence of original thinking, for example in response questions 4 and 9, where candidates are required to plan certain aspects of a piece of research or suggest alternatives to an existing way of conducting an investigation. The responses here show evidence of being both well prepared to respond in general about research methods, but also to apply that knowledge to specific scenarios.