

# Advanced GCE Psychology

## Unit G544: Approaches and Research Methods in Psychology - 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 examiners, 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's 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.

<b>Research question chosen: Is it easier to remember items that are organised or grouped together?</b>	
<b>1 State an operationalised hypothesis for your investigation</b> <span style="float: right;"><b>[3]</b></span>	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
From a list of twenty five words, participants who have been presented them under group headings eg a list of animal names under the heading animals will remember more words than those presented the words with no headings and the words mixed up.	Appropriate statement which is clearly operationalised.

<b>2 Describe the procedure for your investigation, making clear how you would measure the dependent variable and giving examples of materials you would use.</b> <span style="float: right;"><b>[13+6]</b></span>	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
I will use an opportunity sample of twenty students taken from the social area at break time and choose those available. Each person will be asked if they are willing to take part in the investigation and if they consent I will send them to the classroom. I will use males and females who are aged 16 -19 and study at the sixth form college. The first ten chosen will be in the no- heading group and	Clear description of the type of sample and the way it was selected.  Appropriate reference to ethical issues.  Good detail of materials with examples.

<p>the second ten chosen will be in the heading group. A list of 25 words (all nouns) is printed twice. The first list will be given to the no heading group and the words are listed with no particular order. The second list will be with the words under five headings. The headings are: animals, furniture, cars, countries and towns. Each heading will have five words underneath eg under animals the words pig, lion, dog, horse and sheep will be listed. The same words will be used in both lists. The IV is heading or no-heading and the DV is number of words remembered. Students will be gathered together in one classroom and given out the list of words. They will be given 30 seconds to read the list and then it will be taken away. They will be given a piece of paper and a pen and asked to write down as many words as they can remember in 11/2 minutes. The number of correct words remembered will be recorded for each participant in the two conditions.</p>	
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<p><b>3 If, having carried out your investigation and an inferential statistical test, your experimental hypothesis was found to be significant for <math>p &lt; 0.05</math>, what would 'p &lt; 0.05' mean?</b></p> <p style="text-align: right;"><b>[3]</b></p>	
<p><i>Candidate style answer</i></p>	<p><i>Examiner's commentary</i></p>
<p>There is less than a one in twenty chance that the results were due to chance as there is a probability of less than 5% that the results were due to chance.</p>	<p>Correct answer but and reference to probability is made.</p>

<p><b>4 (a) Describe one weakness of the independent samples design in relation to your investigation</b></p> <p style="text-align: right;"><b>[3]</b></p>	
<p><i>Candidate style answer</i></p>	<p><i>Examiner's commentary</i></p>
<p>There are different participants in the no-heading and heading conditions which means that the difference in memory for the words may be due to the skills of the participants rather than the condition they are in.</p>	<p>Weakness explicitly related to investigation.</p>

<p><b>4(b) Consider one way in which the effects of the weakness could be reduced</b></p> <p style="text-align: right;"><b>[3]</b></p>	
<p><i>Candidate style answer</i></p>	<p><i>Examiner's commentary</i></p>
<p>The weakness could be reduced by using</p>	<p>Good suggestion which is related to</p>

a repeated measures design. This means that the same participants are used in both conditions and so participant extraneous variables such as IQ and motivation will not affect their ability to remember a list of words.	investigation.
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<b>5 Discuss the ecological validity of your measurement of the dependent variable</b> [3]	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
The ecological validity is low as the lists of word are created artificially and do not reflect the kind of memory tasks that people normally perform in their everyday lives.	Ecological validity is clearly understood in relation to the investigation.

<b>6 Outline one way in which you show your awareness for ethical issues in the conduct of your study.</b> [3]	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
Participants are asked for their consent when they are asked if they will take part in the study and this is given when they know they are going to be learning a list of words.	Appropriate ethical issue clearly understood.

<b>7 Outline one further aspect of your question which you could investigate in a future practical project. Justify your answer.</b> [3]	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
The research could be carried out with real objects rather than a list. Instead of presenting participants with a list of words they could be shown actual objects on a conveyer belt. This will change the IV slightly but will give the study slightly higher ecological validity and hence probably an easier task.	Further aspect is identified and justified in terms of ecological validity.

<b>SECTION B</b>	
<b>8(a) Using your knowledge of psychology, outline the design of a basic experiment.</b> [4]	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
The main elements of the experimental method are the setting up of a design to test the difference between two conditions. This can either be with two groups of participants or one group in both conditions. The two conditions are the Independent Variable which the experimenter	Could be more than 2 conditions otherwise accurately described with good detail.

<p>manipulates and then records the effect on the Dependent Variable which is measured. If other variables are controlled the experimenter can infer a cause - effect relationship between the IV and the DV. Results are collected for both conditions to see if there is a significant difference between them.</p>	
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**(b) Describe how the experimental method was used in any two pieces of psychological research that you have studied.** **[8]**

<i>Candidate style answer</i>	<i>Examiner's commentary</i>
<p>In the study by Loftus and Palmer on memory there were two experiments. In the first experiment 45 students were used in different conditions. They were shown a film of a car accident and then all asked the same question. 'About how fast were the cars going when they ... each other?' An independent measures design was used so that different participants were asked the same question but with a different verb in each condition. There were 5 conditions which were the different verbs used i.e. smashed, collided, bumped, hit and contacted. The controls in this experiment were the same film used, the same questions (except for the verb), the same lab setting. The independent variable in this experiment is the verb used and the dependent variable is the mean speed estimate. The results showed a significant difference between the different conditions with those in the stronger verb conditions giving higher mean speed estimates than those in the weaker verb conditions.</p> <p>The study by Baron-Cohen is a natural experiment as the independent variable is the participants in the three conditions i.e. normal, Tourette's syndrome and Autistic participants. The dependent variable is their performance in the eyes task. The controls in this study are that each participant carries out the same task in the same way. They have to choose an adjective which best describes what the eyes are showing. There are 25 pairs of eyes and the number of correct answers are scored for each participant. The results show a</p>	<p>Good use of examples to demonstrate understanding of the experimental method.</p>

<p>significant difference between the autistic participants and the other conditions as the autistic participants have lower scores in identifying the emotions shown in the eyes.</p>	
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**(c) Using examples, compare the use of experiments with any other method used in psychology.** **[12]**

<i>Candidate style answer</i>	<i>Examiner's commentary</i>
<p>Experiments differ from observations in many ways. A laboratory experiment allows for control of extraneous variables, for example in Loftus and Palmer's research all the participants saw the same video for the same length of time, in the same environment. However, the observation in Piliavin's research is less controlled and the behaviour of the other people in the carriage couldn't be controlled and may have had an effect on the participants' helping behaviour.</p> <p>The experiments in laboratories are low in ecological validity because they do not have a real life setting. This might make the results less useful to apply to society. However, field experiments have higher ecological validity as they are in natural settings.</p> <p>Experiments are usually objective and provide objective data whereas observations can be open to researcher bias where researchers might interpret the behaviour to fit their hypothesis. For example, observers in the Bandura study might have interpreted the boys' actions as aggressive and the girls' same actions as non aggressive whereas in Baron-Cohen's research on adults with autism the answers are not open to interpretation.</p> <p>Finally, someone in a laboratory experiment will know they are taking part in an experiment and so their answers may be liable to demand characteristics, where they think they know what the researchers are looking for and behave accordingly. For example, in the field experiment by</p>	<p>Comprehensive range of points with effective use of supporting examples taken from the content of AS and A2.</p>

<p>Savage and Armstrong where they interviewed doctor's patients about their consultations, the patients may have guessed what type of consultation they had had and said they preferred the direct style of consultation because that was what they thought the researchers wanted to prove. In the observation of the participants who were using a vending machine, and some had pictures of eyes on the machine, which made the participants more likely to pay for their drinks, the participants wouldn't have known they were taking part in research and so would act more naturally showing less demand characteristics.</p>	
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**(d) Explain the advantages of using the experimental method.** **[8]**

<i>Candidate style answer</i>	<i>Examiner's commentary</i>
<p>The main advantage of the experimental method is the high degree of control over extraneous variables leading to the ability to infer a cause and effect relationship between the independent variable and the dependent variable. If all the extraneous variables are either controlled or eliminated, the only possible cause of the experimental effect is the independent variable which is being manipulated by the experimenter. In the case of Loftus and Palmer's study of memory of cars in a film clip the participants all saw the same piece of film and the only thing that was different was the verb used. In this case we can assume it was the different verbs which caused the difference in the dependent variable that is the mean speed judgement.</p> <p>Another advantage of experimental methods is the objectivity of the judgements made by the experimenters. Much of the data gathered in experimenters is quantitative and it would be difficult for judgements to be subjective with this kind of numerical data. For example, in the case of Baron-Cohen and his eyes test using autistic adults, the data was quantitative in the form of number of correct answers given. This data is not open to interpretation.</p>	<p>Fully explained advantages with reasonably detailed examples.</p>

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<p><b>(e) Discuss how laboratory based research can be useful in our understanding of everyday life.</b></p> <p style="text-align: right;"><b>[8]</b></p>	
<i>Candidate style answer</i>	<i>Examiner's commentary</i>
<p>A quasi-experimental method was used in the study by Griffiths on fruit machine gamblers which gives psychological insight into the thought processes of people with addictive behaviours. Gambling is a common behaviour in everyday life and it is very useful to have a better understanding of why gambling, particularly in the young can become addictive.</p> <p>Likewise Loftus conducted a number of experiments on the memory of eyewitnesses to see what affected them. In a study on weapon focus, she found that participants focused more closely on the weapon when a gun was present and so their identification of the assailant was less accurate than in a condition where no weapon was present. However, these findings have been contradicted by research in a natural environment which casts doubt on the validity of her findings and hence their usefulness.</p> <p>Samuel and Bryant conducted Piagetian style tests on a very large sample of children in Devon. Their findings on the conservation ability of young children are useful in understanding how children think and the factors that affect them under test conditions. For example it is useful to know that children will perform better when questions are worded in a different way as they performed better in the one question than the two question condition.</p>	<p>Could have been a wider range of sources i.e. from A2 content but a good range of supporting arguments which is well organised.</p>

**Overall banding: High**

This student has been graded as high as all the responses were accurate and in sufficient detail to get into top mark bands. Where relevant they were applied to examples or stimulus material.