Examiners' Report
Principal Examiner Feedback

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Pearson Edexcel International GCE in
Psychology (WPS01)
Paper 01 Social and Cognitive
Psychology

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General Comments

Overall most candidates attempted nearly all of the questions on the paper.

Candidates struggled most in answering questions 2b, 2c, 3b, 3c and 5b. Candidate's responses for the rest of the paper did vary in terms of candidate strengths across the remaining questions. Knowledge and understanding of both cognitive and social was evidenced equally in student answers.

Candidate's use of the scenarios in their answers again caused problems for some, especially in the smaller questions. When the scenario was embedded within answers candidates fulfilled the requirements of the question and accessed full marks. Quite a few candidates did provide generic answers which limited the marks that they could access, especially in the smaller questions. Candidates would have benefitted from applying their answers clearly to the scenario provided in the question stimulus.

Most candidates were able to identify and use within their answers research evidence from their course. Candidates would benefit from accurately learning which studies are contemporary and which are classic, as there is still some confusion resulting in candidates providing the wrong study in their answers.

Strengths and weakness questions for a few candidates were of a very high standard, with them identifying a clear weakness or strength of the study specified and justifying this in terms of the study. At times generic answers were provided which did not incorporate enough accurate knowledge about the study to clearly know which study they were providing a strength and weakness for.

Longer questions for some candidates allowed them to show their knowledge and understanding of different elements of the course well. For the most successful candidates use of scenarios within their answers enabled them to enhance their A02 skill, when the question required it. For other questions conclusions and balanced judgement/arguments were also good. Candidates would benefit here from reading the question carefully and linking their answers back to what the question requires, at times this was limited in some answers.

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Paper Summary

Based on their performance on this paper candidate are offered the following advice:

- Candidates need to know the difference between classic and contemporary studies.

- Candidates need to pay careful attention to not only the taxonomy within a question but the question requirements. For example, if the question asks for reference to a scenario then candidates need to include this within their answer to access the marks.

- Some candidates provided answers in terms of the levels based questions that showed an awareness of the necessary skills. Candidates need to continue to develop this in terms of balance/judgement/ conclusions and reasoned chains or arguments that may be required from a question.

- Coverage of all areas within the specification, even smaller areas needs to be addressed for some candidates.

Comments on Individual Questions:

Q01a

Question Introduction
Most candidates attempted defining coercive power with some success. There was some confusion with other types of power for some candidates. Better candidates were able to clearly reference the authority figure in terms punishment for disobedience.

Examiner Comment

1 Social power theory suggests there are five types of power that can be used to explain obedience to authority.

Define the following types of power.

(a) Coercive power

(1)

Is the power an authority figure has to punish people if the don't obey. (it is not always his/her choice to use this type of power).

This response gained 1 mark overall.

The candidate provides an accurate definition of coercive power by suggesting that the authority figure has the power to punish another if they do not obey.
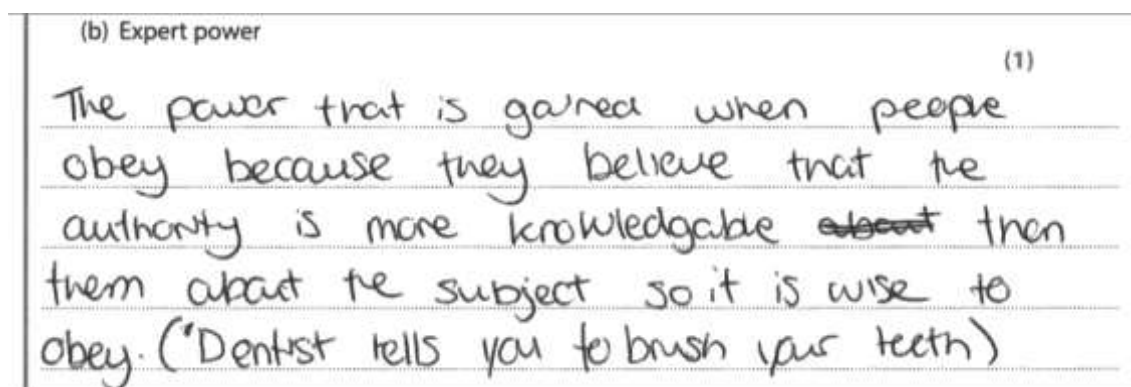
Examiner Tip
Candidates would benefit from learning accurately the different types of power.

Q01b

Question Introduction

Most candidates defined expert power well and were able to fulfil the requirements of the mark scheme. There was some confusion with other types of power for some candidates. Some candidates added to their answers with examples, even through not necessary this did at times support their answer.

Examiner Comment

> (b) Expert power   (1)
>
> The power that is gained when people obey because they believe that the authority is more knowledgable ~~about~~ then them about the subject so it is wise to obey. ('Dentist tells you to brush your teeth)

This response gained 1 mark overall.

The candidate provides a definition of expert power in terms of being aware that the authority has knowledge that places them over others.

Examiner Tip

Candidates need to be careful not to confuse the different types of power.

Q01c

Question Introduction
Some candidates struggled with defining legitimate power in terms of a correct answer. There was some confusion with other types of power for some candidates. A few candidates gave examples but did not develop these in terms of legitimate power.

Examiner Comment

(c) Legitimate power (1)

Legitimate power know X comes from, people who one feels that they have something that they admire eg attractiveness, hence they obey on this basis.
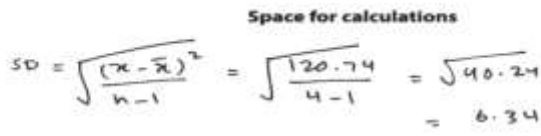
This response gained 0 marks overall.

The candidate has confused legitimacy with admiration and in doing so does not provide an accurate definition of legitimate power.

Q02a

Question Introduction

This question was answered well by lots of candidates who showed their answers both in terms of using the standard deviation formula and providing a correct final answer. Calculations using the formula were generally accurate showing that candidates were familiar with this measure of dispersion.

Examiner Comment

Space for calculations

$$SD = \sqrt{\frac{(x - \bar{x})^2}{n-1}} = \sqrt{\frac{120.74}{4-1}} = \sqrt{40.24}$$
$$= 6.34$$

Standard deviation for the number of nurses who followed the instructions: 6.34

This response gained 2 marks overall.

The candidate shows the correct use of the formula and then goes onto provide a correct answer to two decimal places.

Examiner Tip

Candidates need to complete all parts of the question requirements in order to maximise the marks they can achieve.

Q02b

Question Introduction

Most candidates had an understanding of agency theory in terms of being in an agentic state to the authority figure, amongst other aspects of the theory. At times candidates just described the theory and did not relate it clearly to the scenario, therefore could not be accredited marks. Some candidates were able to apply their understanding of agency theory successfully to the scenario of the nurses being in an agentic state to the authority doctor for example. A few candidates were able to develop their answer further using for example, a shift in responsibility in terms of the scenario or other credible elements of the theory.

Examiner Comment

> (b) Describe, using agency theory, why the nurses may have followed the instructions to administer incorrect medication for patients.
>
> (2)
>
> Agency theory explains that when you were given orders your mind switches to an agentic state so you act as an agent to the authority even though you might experiencing a moral strain

This response gained 0 marks.

The candidate has described agency theory in terms of the agentic state acting as an agent to the authority however they do not gain any credit as they have not referenced in the scenario. The question asks candidates to describe agency theory in terms of why the nurses may have followed the instructions to administer incorrect medication for patients.

Q02c

Question Introduction

A lot of candidates were able to provide an identification of why only four nurses obeyed the doctor's instructions, which for most candidates focused on proximity. Candidate answers when produced in this way focused on embedding the scenario within their answer. A few candidates did not refer to the scenario providing an answer which focused on proximity for example, without scenario reference. A minority of candidates developed their answer further with justification, candidates that did this well sometimes referenced in Milgram's variation study as supporting evidence.

Examiner Comment

> Explain **one** reason why only four nurses obeyed the doctor's instructions in this variation.
>
> (2)
>
> This is because obedience levels falls when authority figure is not in close proximity which made the nurses to be not obey since there isn no authority figure present at the situation and responsibity should be taken by them therefore obedience levels falls rapidly.
>
> (Total for Question 2 = 6 marks)

This response gained 1 mark.

The candidate has identified a fall in obedience in terms of the authority figure not being in close contact as an identification of why the nurses did not obey. The candidate does not develop their answer further in terms of a justification, so only one mark is awarded.

Examiner Tip

Candidates would benefit from ensuring that they justify their answers in a question that asks for this skill.
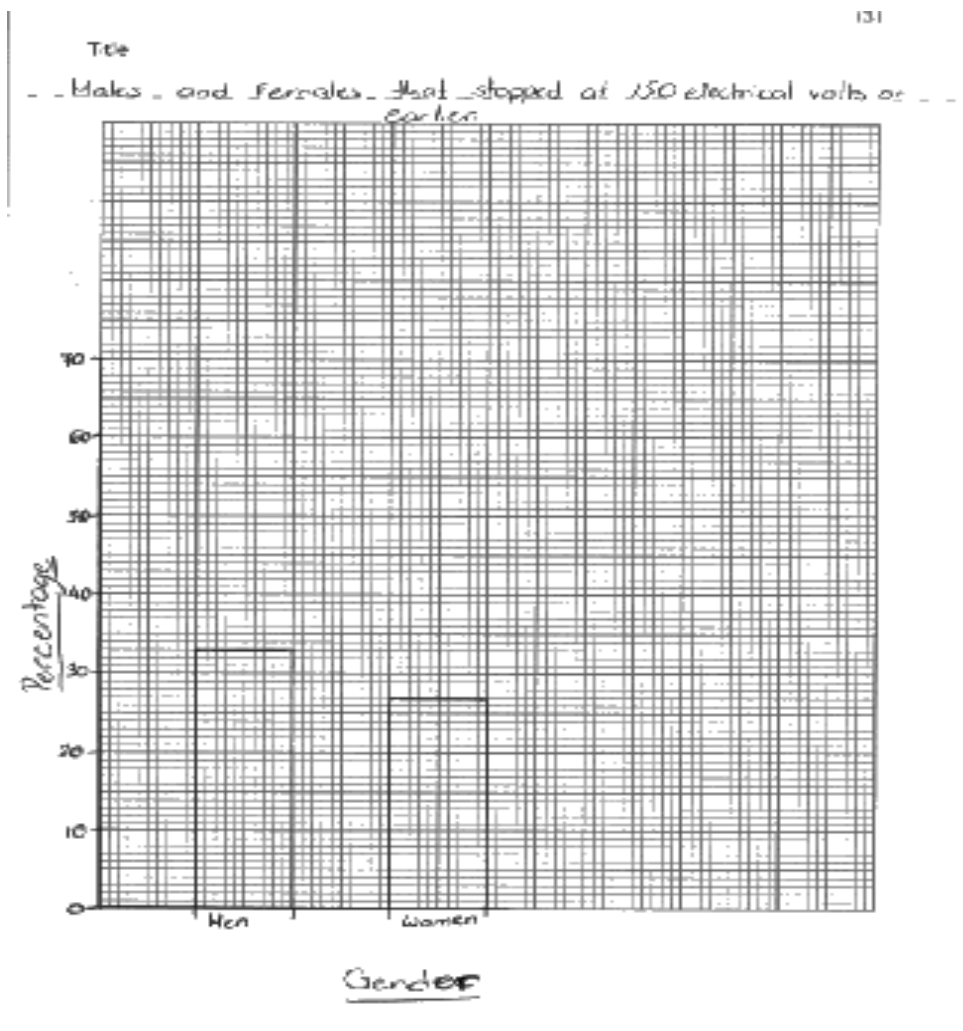
Q03a

Question Introduction

The majority of candidates were able to produce the correct graph to illustrate this data. Not all candidates drew a bar chart as the question instructed. For 3 marks candidates had to provide an appropriate title, the accuracy of which did vary across answers provided. A second mark was awarded for labelling the axes correctly, this like the title varied in accuracy between candidates responses. The final mark was for the correct plotting of the data, most candidates did this well. A minority of candidates plotted graphs for both conditions, the question asks for only Condition A.

Candidates generally made good use of the graph paper which made answers easier to plot. Very few candidates did not attempt at least part of this question; some candidates provided histograms and line graphs.

Examiner Comment

This response gained 2 marks overall.

The candidate produced a title which is accurate gaining 1 mark. The graph plots for both bars are correct for a second mark. The axes are not labelled accurately so cannot be awarded a mark.
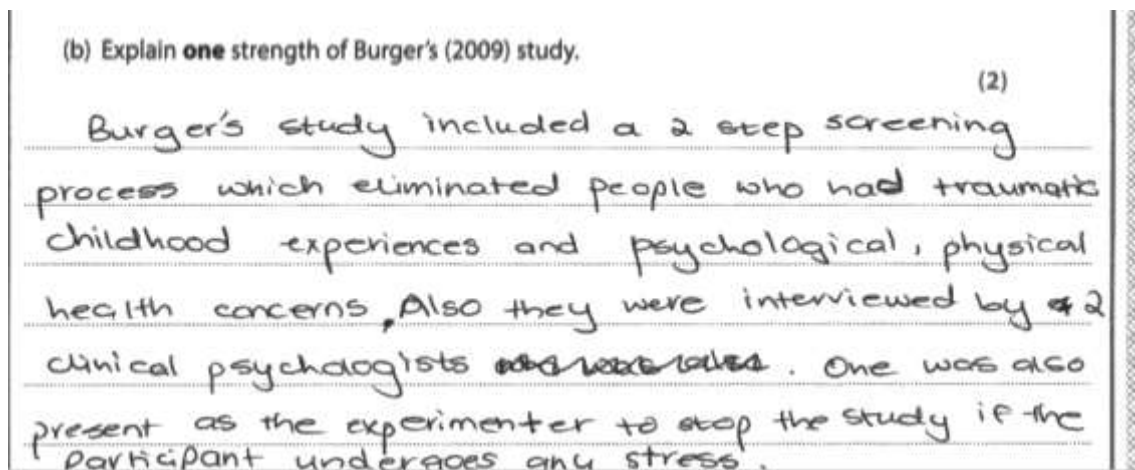
Examiner Tip

Candidates would benefit from labelling their axes fully in order to ensure they have access to this mark.

Q03b

Question Introduction

Most candidates attempted this question producing some good answers in terms of both skill requirements. Candidates who knew Burger's (2009) study well were able to provide a clear identification of one strength; going onto justify their strength for a second mark. Some candidates were unable to develop the justification of their identified strength which resulted in a second mark not being awarded. There were some cases of confusion with Milgram's (1963) study in terms of strengths that some candidates had identified.

Examiner Comment

(b) Explain **one** strength of Burger's (2009) study.

(2)

Burger's study included a 2 step screening process which eliminated people who had traumatic childhood experiences and psychological, physical health concerns. Also they were interviewed by 2 clinical psychologists and were tested. One was also present as the experimenter to stop the study if the participant undergoes any stress.

This response gained 1 mark.

The candidate is able to identify a strength of Burger's (2009) study in terms of the screening process that Burger completed, however there is no clear justification of this strength for a second mark.

Examiner Tip

Candidates would have benefitted from providing answers which clearly identified one strength and then provided a clear justification of that strength in order to gain both marks available for this question.

Q03c

Question Introduction

Most candidates attempted this question producing some good answers in terms of both skill requirements. Some candidates were able to access A01 marks showing an understanding of weaknesses of Burger's (2009) study. Answers focused on ethical issues, sampling problems, lack of task validity amongst other weaknesses. At times candidate's answers lacked accuracy which resulted in generic statements being made for the A01 part of their answers. A minority of candidates confused Burger's (2009) study with Milgram's research; in these instances they were providing weaknesses of Milgram's research and not Burger's.

Examiner Comment

> (c) Explain **two** weaknesses of Burger's (2009) study.
>
> (4)
>
> 1 Lab experiment, it had low ecological validity because happened in a lab enviroment which makes the study less naturalistic.
>
> 2 ~~The idea of giving an electric shock to an innocent person could have increa~~ the participants might not believed that they were given electric shocks

This response gained 0 marks

The candidate has attempted to provide two weaknesses for Burger's (2009) study. The first weakness is not clearly focused on Burger's study and as such gains no mark for either A01 or A03. It is not clear from what they have written what study they are providing a weakness for. The second weaknesses again does not clearly identify a weakness of Burger's (2009) study and there is also no attempt at a justification.

Examiner Tip
Candidates would have benefitted from providing accurate A01 reference to Burger (2009) study in terms of clear identification.

Q04

Question Introduction

Some candidates answered this question well, incorporating both elements of the assessment requirements. Most candidates were able to identify social psychological research that had breached ethical guidelines. The majority of candidates focused on Milgram, Burger and Asch; however others were accredited if included in candidate's answers. A few candidates provided answers in terms of ethical guidelines but made no attempt to link what they were providing to social psychological research. Candidates referred to consent, informed consent, distress, debriefing amongst other ethics in terms of social psychological research. A minority of candidates included methodology elements within their answers with no reference to ethical guidelines and social psychological research.

As a level based question it is important to note that an A01/A03 response was required which needed to show an equal emphasis between knowledge and understanding versus assessment/conclusion within candidate answers. Those candidates who scored highly on both skills were able to demonstrate accurate and thorough knowledge and understanding of social psychological research in terms of ethical guidelines in terms of the question requirements. Those who displayed a well-developed and logical assessment, containing logical chains of reasoning met the requirements of the A03, often making judgements about breaching ethical guidelines in reference to the social psychological research they had provided. The most successful candidates were able to demonstrate an awareness of the significance of the competing arguments/factors leading to a balanced judgement being presented on whether breaching ethical guidelines was necessary or not in social psychological research.

Examiner Comment

4   The British Psychological Society (BPS) Code of Ethics and Conduct (2009) gives psychologists clear guidelines for conducting research. As a result, a number of studies in social psychology are now considered unethical, despite producing important findings to help us understand social behaviour.

Assess whether breaching ethical guidelines was necessary in social psychology research.

(8)

It was necessary especially when decieving participants on the true aim of the study. For example Milgram (1963) decieved the participants in his study, they thought they were assessing punishment on memory while

they were assessing obedience of naive participants when told to give electric shocks to an innocent victim. It was necessary to decieve them because this reduces or may it remove demand characteristics of participants making study & results more reliable. Milgram also lied to participants that they were giving real electric shocks to the learner (confederate) while they were not. This made the study more realistic to participants allowing them to act as if they were giving real electric shocks to the learner as they believed. Participants in Milgrams study were psychologically harmed, one they showed high levels of distress & physically harmed, participants were biting their nails & digging their nails into their skin. This was necessary as it showed how far someone is willing to obey when ordered to inflict pain on another person who was innocent.

Asch et al (1951) also lied about aim of the study. participants believed it was a vision test while it actually was assessing ~~minority~~ majority influence on minority when conforming. This was necessary to find out if a majority influence made the minority conform to their ideas. Without deception, demand characteristics will ~~b~~ occur reducing reliability.

Overall, breaching the ethical guidelines is necessary as it ensures no demand characteristics & allows for collection of reliable data. However debriefing after study should be done to ensure participants are also comfortable with still being in the study & are aware of what they have been doing. Debriefing also helps clear up misinformed consent given in beginning as the aim given was a lie.

This candidate scored Level 3, 5 marks.

The candidate clearly understands the need within their answers for inclusion of social psychological research, referring to both Milgram and Asch. They begin with an accurate identification of the deception used by Milgram in his (1963) study which they go onto justify in terms of demand characteristics being a necessary requirement, so breaking ethical guidelines was necessary. At times the candidates answer is not always accurate and justified in terms of knowledge which results in a lack of understanding towards the question requirements. In addition their argument is not balanced, they provide several references to breaching ethical guidelines being necessary but do not clearly suggest a counter argument which means their answer is not completely balanced for the higher level.

Examiner Tip

Candidates within an "assess" question need to be aware that for level 4 their answers need to provide competing arguments leading to a balanced judgement.

Q05a

Question Introduction

Some candidates produced an accurate answer for this question. A number of candidates either confused the correct answer with other levels of measurement or provided alternative answers which were not correct. A minority of candidates did not attempt this question.

Examiner Comment

5   Kaleb investigated the effect of leading questions on eyewitness recall. He showed a video clip to 30 participants and then asked them three questions about what they had seen in the video clip. The experimental group was asked the same three leading questions, the control group was not asked any leading questions.

The results are shown in **Table 3**.

Condition	Number of participants who gave accurate responses to more than one question	Number of participants who gave inaccurate responses to more than one question
Control group: No leading questions	12	3
Experimental group: Leading questions	5	10

Table 3

(a) Identify the level of measurement for the data in **Table 3**.

(1)

ordinal data

This response gained 0 marks.

The candidate does not provide the correct answer, identifying an alternative level of measurement.

Examiner Comment

Condition	Number of participants who gave accurate responses to more than one question	Number of participants who gave inaccurate responses to more than one question
Control group: No leading questions	12	3
Experimental group: Leading questions	5	10

Table 3

(a) Identify the level of measurement for the data in **Table 3**.

(1)

Nominal data

This response gained 1 mark overall.

The candidate clearly provides an accurate identification of the level of measurement from the data provided in table 3.

Examiner Tip

Candidates need to be aware of the smaller areas within the specification that they could be asked on.

Q05b

Question Introduction

A lot of candidates struggled with applying the independent groups design successfully to the scenario. Answers describing the independent groups design in terms of why it was used appeared without scenario reference in lots of candidate responses. More successful candidates were able to accurately describe the independent groups design in terms of the scenario, clearly referencing Kaleb and how it would reduce demand characteristic for example of participants guessing the aim of testing leading questions.

Examiner Comment

(b) Describe why Kaleb chose to use an independent groups design for his investigation.

(2).

An independent groups designs helps to eliminate any order effects that participants could obtain such as fatigue or practice. This is because they are only exposed to an experimental condition once. In addition, an independent group design can help reduce participation variables.

This response gained 0 marks.

The candidate has provided an answer without reference to the scenario therefore cannot be accredited any marks.

Examiner Tip

Candidates would have benefitted from reading the question carefully and referencing clearly the scenario within their answers.

Q05c

Question Introduction

Some candidates were able to accurately provide at least one reason as to why Kaleb used standardised questions within his study. At times some of these lacked accuracy or reference to the scenario therefore marks could not always be awarded. Retesting using the same leading and non-leading questions to check his results was popular with a lot of candidates.

Examiner Comment

(c) Give **two** reasons why Kaleb used standardised questions in his study.

(2)

1 To reduce the effect of participant variables.

2 To ensure the experiment was the same experience for all.

This response gained 0 marks.

The candidate has provided an answer without reference to the scenario and the reasons they provide are either inaccurate or incorrect, therefore they cannot be awarded any marks.

Examiner Tip

Candidates would benefit from ensuring their answers clearly incorporate the scenario being asked about in the question.

Q05d

Question Introduction

Most candidates were able to provide a partially correct description of reconstructive memory. A few candidates provided answers for multi-store model of memory or working memory, suggesting confusion between their memory theories. Some candidates provided descriptions of how their memories or perceptions of an event are affected by their experiences; sometimes they developed their descriptions further with reference to schemas for example.

Examiner Comment

Bartlett (1932) suggested that memory is reconstructive.

(d) Describe what is meant by reconstructive memory.

(2)

The term reconstructive memory is on how we perceive, image and encode information by pre-existing memories. It explain how st schemas formed by past memories are affect b ea by what we go through in over everyday lifes and togather affect bre our image, percept perception and encoding of new information.

This response gained 2 marks overall.

The candidate describes reconstructive memory in term of encoding information through pre-existing memories. They then go onto develop this in terms of schemas from past events and how this affects how we encode the new information.

Examiner Tip

Candidates would benefit from learning the key differences in their memory theories therefore avoiding confusion when asked about a specific theory.

Q06

Question Introduction

Candidates attempted this question in terms of analysing the use of case studies of brain damaged patients as evidence of memory function. Candidates who did this well focused their answers around HM, Clive Wearing amongst other case studies of brain damaged patients. Some candidates confused the study by Schmolck in terms of being a case study of brain damage patients. Candidates did struggle at times to reference in memory function analysis but when attempted, most candidates were able to access marks.

Examiner Comment

6   The case of Henry Molaison (HM) has been used as evidence to support memory functions.

   Analyse the use of case studies of brain damaged patients, such as the case of Henry Molaison (HM), as evidence of memory function.

(6)

Although case studies are ~~unig~~ rare and their effects are unique to individuals who suffer the damage, they provide evidence for theories of memory such as the multi-store model. In the case of HM, he was unable to transfer short term memories into long-term storage which supports the idea that ~~they ~~ ^these stores exist in seperate regions of the brain.

However, the fact that HM's very early memories were still intact and he could still learn certain new skills highlights the fact that memory is much more complex and that ~~they ~~ ^memories don't exist in unitary stores. If case studies are able to point out weaknesses in our understanding

of how memory works, they reinforce the idea that there are individual differences in neurology which helps to account for our different reactions and perceptions of events.

This response gained 5 marks

The candidate begins with an analysis statement in terms of the uniqueness of individuals who suffer brain damage providing evidence for theories of memory such as the multi-store model. This is then identified with HM and not being able to transfer short term memories to long term storage for a second mark. The second paragraph begins with a clear identification mark in terms of HM's memory skills begin analysed in terms of memories not existing in unitary stores. In addition the last sentence which focuses on individual differences as a weakness for our understanding of how the memory works.

Q07a

Question Introduction
A few candidates were able to provide a weakness of the multi-store model of memory in terms identifying an actual weakness of the model and then justifying their choice. Often this focused on the simplicity of the model or issues related to the LTM memory being too basic. Most candidates struggled with justifying their weakness for the A03 mark.

Examiner Comment

7   Atkinson and Shiffrin (1968) proposed the multi-store model of memory.

   (a) Explain **one** weakness with Atkinson and Shiffrin's (1968) multi-store model of memory.

(2)

It is too simplistic stating that information only flows in one direction. Researchers have argued that memory is more complex than what Atkinson & Shiffrins thought it to be.

This response gained 1 mark.

The candidate is awarded one mark for an identification of one weakness in terms of the model being too simplistic as it only flows in one direction. There is no justification of this therefore a second mark cannot be awarded.

Examiner Tip
Ensure that candidates are clear on how to justify weaknesses in terms of models of memory.

Q07b

Question Introduction
Many candidates were able to provide a description of the multi-store model of memory in terms of the scenario for at least one mark. Answers focused mainly on how much the STM holds in terms of how many items Mahmood had to remember, other candidates referred to primacy and regency of the word list and which parts he would be most likely to remember. Some candidates provided a description of the multi-store model of memory with no reference to the scenario and therefore could not be accredited any marks.

Examiner Comment

(b) Mahmood was verbally given a list of 14 food items to buy from the shop. When he arrived at the shop to buy the food he could only remember nine of the food items.

Describe, using the multi-store model of memory, why Mahmood could not remember all 14 food items.

(2)

This is because acoustic information is stored in the short term store. The short term store is only capable of withholding 5-9 items at a time, before decay of the rest of the information occurs.

This response gained 0 marks.

The candidate is awarded no marks as the question asks for a description of the multi-store model of memory in relation to the scenario.

Examiner Comment

(b) Mahmood was verbally given a list of 14 food items to buy from the shop. When he arrived at the shop to buy the food he could only remember nine of the food items.

Describe, using the multi-store model of memory, why Mahmood could not remember all 14 food items.

(2)

It is belived in the short term memory only 7±2 bits can be stored at a time before more can be stored therefore Mahmood only remembered 9 out 14 as his STM was filled.

This response gained 1 mark.

The candidate is awarded one mark for describing the STM in terms of the scenario of Mahmood only remembering 9 out of 14 as his memory was filled.

Examiner Tip

Candidates would benefit from ensuring that all of their answer focuses on the scenario.

Q07c

Question Introduction

Lots of candidates were able to calculate the correct percentage of food items Mahmood could remember when he arrived at the shop. A minority of candidates did not fulfil all requirements of the question in terms of expressing their answer to two decimal places.

Examiner Comment

(c) Calculate the percentage of food items Mahmood could remember when he arrived at the shop. Express your answer to two decimal places.

(1)

Space for calculations

$$\frac{9}{14} \times 100 = 64.2857$$

Percentage of food items Mahmood could remember when he arrived at the shop: 64.29%

This response gained 1 mark.

The candidate worked out the correct percentage of food items Mahmood could remember when he arrived at the shop, expressing their answer to two decimal places.

Q08

Question Introduction

Some candidates produced accurate and well developed answers focusing on evaluating Schmolck et al (2002) contemporary study. These answers provided an understanding of Schmolck's study in terms of his sample, scoring and type of test participants completed; design used, amongst other knowledge areas. These answers displayed a well-developed and logical evaluation incorporating sampling issues, the benefits of inter-rater reliability; the use of a control condition, unrealistic tasks and other points. For stronger answers these were shown through logical chains of reasoning through the candidates work. Some candidates did not always show an awareness of competing arguments which resulted in an imbalanced argument. The question specifically asked for an evaluation of Schmolck's (2002) contemporary study and in doing so candidates needed to provide an awareness of competing arguments within their answers, resulting in a balanced conclusion.

Some candidates focused solely on describing Schmolck's (2002) study, confusing the requirements of the question.

As a level based question it is important to note that an A01/A03 response was required which needed to show an equal emphasis between knowledge and understanding versus assessment and conclusion. Those candidates who scored highly on both skills were able to demonstrate accurate and thorough knowledge and understanding of Schmolck's (2002) study. This A01 knowledge and understanding was displayed in a well-developed assessment containing logical chains of reasoning throughout the candidates answer, not just in the second part. This therefore allowed these candidates to demonstrate an awareness of the significance of competing arguments incorporating both skill elements throughout their answer, enabling them to provide a balanced conclusion.

Examiner Comment

8 In cognitive psychology you will have learned about the following contemporary study in detail:

- **Schmolck et al (2002)** Semantic knowledge in patient HM and other patients with bilateral medial and lateral temporal lobe lesions.

Evaluate the contemporary study by Schmolck et al (2002).

(8)

Schmolk et al wanted to see if the semantic long term memory (LTM) was linked to a certain part of the brain, and ~~different patients would underperform~~ additionally, if patient H.M's results were unique. The

sample consisted of 14 participants altogether, divided into 3 groups. The MTL+ group which had brain damage to the hippocampus and temporal cortex (3), the MTL group including patent H.M (3) and finally the 8 healthy controls who were matched on age and education, making it a matched pairs design. The participants underwent 9 tests based on a half on objects, and the other half on animals. ~~The results found that the average scores for it~~ The results showed that the highest average scores was from the MTL group, second highest from the controls and ~~3rd~~ third highest from the MTL+ group.

Schmolck et al's study ~~is active~~ has provided vital information related to memory and extense of brain damage as a result of brain surgery both, as there had been a positive correlation between the scores and brain damage. This can be applied to real life and contribute to similar instances, helping protect the patients in danger. ~~In addition~~

However, there are issues in terms of the applicability due to the participants and sample. since the sample gathered was extremely small, any anomaly could have greatly altered the data and made it less accurate, despite the fact that they were matched on age and education which ensured that that it was the IV (brain damage) affecting the DV (test scores), it is still an issue. ~~Furthermore,~~

In conclusion however, the research is greatly applicable to real life and this sort of research cannot It could not have been obtained without patients such as H.M exmg. The evidence is extremely rare and hence very beneficial to research.

This response gained Level 2 - 4 marks

The candidate in the first part of their answer provides mostly accurate knowledge and understanding of Schmolck's (2002) study, referring to the sample used, tasks administered and partial results. The candidate then goes onto provide statements with some development in the form of mostly accurate and relevant factual material in terms of evaluating Schmolck's study, as the question asks. This relates to a focus on sampling, at attempt at an application and reference to the benefit of matching participants which leads into a superficial conclusion at the end.

Examiner Tip
Candidates would benefit from providing accurate knowledge and understanding of their contemporary study which incorporates coherent chains of reasoning throughout their answers and not just in the second half. This would allow candidates to easily demonstrate an awareness of competing arguments and provide a balanced conclusion.

Q9

Question Introduction

Some candidates began their answer with a brief overview of what the question focused on, setting the scene for their essays in terms of whether the laboratory experimental method in this investigation on memory was positive and/or negative. Many candidates focused on stating the strengths, and sometimes later weaknesses of laboratory experiments, occasionally relating this to the scenario of Mia and Felipe's memory investigation. Several candidates made no reference to the scenario in their answer, providing an evaluation of laboratory experiments. A minority of candidates did not attempt this question.

Candidates were at times successful in linking their knowledge of laboratory experiments to the context in terms of elements of the memory investigation. Clearer answers provided linked elements of the scenario within their answer in terms of an unrealistic task of learning words, being able to use the same word lists within a laboratory experiment, amongst others.

A few candidates were able to provide in their answers competing arguments on whether the use of the laboratory experimental method worked well in Mia and Felipe's. At times these were not developed in terms of accuracy and relevance to the question which then made conclusions difficult.

As a level based question it is was important to note that an A01/A02/A03 response was required which needed to demonstrate an equal emphasis between knowledge and understanding versus application, evaluation and conclusions within their answers. Those candidates who scored highly on all three skills were able to demonstrate accurate and thorough knowledge and understanding of the laboratory experimental method. This knowledge was then supported through sustained application of relevant evidence from the investigation on memory context. This allowed candidates to demonstrate the ability to integrate and synthesise relevant knowledge. These candidates were able to display a well developed and logical evaluation, containing logical chains of reasoning through their answer which demonstrated an awareness of competing argument. This therefore allowed for a balanced conclusion and level 4 marks.

Examiner Comment

Answer the question in this section. Write your answer in the space provided.

9   Mia and Felipe carried out research to test acoustic similarity effect on short- and long-term memory. They set up an experimental group where an acoustically similar word list was shown to eight participants for them to learn. The control group of six participants was shown an acoustically dissimilar word list. Both groups had to recall the words immediately after the task for the short-term memory test, and then later to test long-term memory.

Mia and Felipe's university professor has criticised their investigation. However, they disagree with the professor and believe their investigation was conducted well.

Evaluate Mia and Felipe's use of the laboratory experimental method in their investigation of memory.

You must make reference to the context in your answer.

(12)

Laboratory experiments are conducted in an unnatural setting, where all the variables are controlled for other than the dependent variable and the independent variable in which the experimenters would change, in this case the students change the word list. Laboratory experiments follow a set list of ~~quest~~ procedures. ~~for~~ Firstly laboratory ~~experiments~~ are artificial, therefore you can not tell how it may happen in real life. It lacks realism, thus reducing validity. In Mia and Felipe's Investigation, ~~you so~~ they can not generalise these findings to ~~another~~ real-life situation, therefore it lacks ecological validity.

~~However~~ However, this investigation includes a ~~set~~ procedure and other variables are

controlled for, therefore a cause an effect relationship can be established. This therefore increases the reliability of the study. In this study Mia and felipe could check what they've actually testing for, as extrenous variables are controlled for in the laboratory experiment.

Additionally Mia and felipe's university professor may also critisized their investigation for the sample size being very small, thus it cannot be generalised to the entire population, ~~this~~ therefore this study lacks population validity.

. Furthermore, experimenter bias may occur, in which they are ~~red~~ reading the words out, thus reducing the ~~rat~~ level of validity.

This study uses an artificial task, which may reduce validity of the study. ~~Also in real-life,~~

Another disadvantage includes ~~that~~ the facts that ~~there~~ there are participants variables that could affect the performance of the participants. for example : tiredness, hunger.

Furthermore an advantage of the study is that it uses a control of a group of people who undergo a condition

of an acoustically dissimilar word list which increases the validity of the study.

In conclusion, this study has many strengths and weaknesses. Mainly it being a laboratory experiment. As it can not be ~~generaly~~ generalised to a real-life situation but involves a set procedure. This study can be also criticized in many other ways.

This response scored Level 2 – 6 marks.

The candidate begins with reference to laboratory experiments and then relates this to the scenario in terms of students change the word list. They then go onto provide another evaluative point in terms of laboratories being artificial which has some reference to Mia and Felipe's investigation. The candidate provides reference to other variables begin controlled but do not say how, again not fully developing this point. The question specifically asks for an evaluation of the laboratory experimental method in their investigation of memory which is at times unclear in the candidates answer. Reference to experimenter bias is related to the scenario but underdeveloped for additional credit. A similar pattern follows for the rest of their answer. A conclusion is provided at the end but this is more a statement that there are strengths and weakness of laboratory experiments and is not clearly focused in terms of the question requirements. Therefore the candidate provides mostly accurate knowledge and understanding of laboratory experiments. Their lines of argument are occasionally supported through application of relevant evidence from the context and they produce statements with some development in the form of mostly accurate and relevant factual material, resulting in a superficial conclusion.