



# Examiners' Report June 2018

## GCE Psychology 9PS0 01

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# Introduction

The examination structure provided a range of question types over five sections, with the final extended responses requiring candidates to address issues and debates. Many candidates demonstrated good psychological knowledge and understanding in this examination, and centres have clearly covered the required content in sufficient depth which has benefitted candidates.

Candidates have worked hard throughout this paper, with most candidates making attempts at all questions, which was very positive to see. However, some candidates did not respond to the later essay questions and may benefit for future series in practicing timing.

Strengths were seen in the understanding of the nature versus nurture issue and debate (question 15) in terms of the candidates' understanding of social psychology, however the responses were not as strong when linked to cognitive psychology, where most candidates gave reconstructive memory as nurture but did not engage as strongly with aspects of cognitive psychology that were nature based.

There remains a general area for improvements in the candidate skills of application to the scenarios for the AO2 questions, although this has developed since the 2017 examination; some candidates are giving generic responses that are not applied to the context, for example failing to make the link between schema theory and the scenario of the theft of the bag in a restaurant (question 6).

There is an improvement in candidate understanding of the taxonomy of questions, with many able to meet the demands of questions more consistently. Further development would benefit candidates when responding to 'explain' questions, where often the justification of their point is not fully developed. This was evident particularly in question 3 where a strength was often given but was not expanded upon, and question 11c when a methodological issue was given but again was rarely developed.

Candidate responses to the biological key question were often limited; most candidates seemed to be aware of their key question for society but struggled to make the links between the key question and relevance to society, often giving substantial theory/concepts/research about their key question, but only weakly demonstrating their knowledge and understanding of the relevance of the key question itself.

The remainder of this Examiner Report will focus on each individual question and specific examples with the aim of highlighting areas of good practice and some common errors which can be used to help prepare candidates for future 9PS0/01 examinations.

## Question 1

This is an AO1 question where up to three marks are awarded for describing the procedure of the Rundown Office Block (Experiment 10) variation study. Candidates were often describing Experiment 5, giving generic content that could apply to any of Milgram's variation studies and thus limiting the marks available. Very few links were seen to the explicit procedural points of this variation, such as using a commercial office building; the set up being sparsely furnished; that it was claimed to be conducted by Research Associates of Bridgeport as a private firm conducting research. Where candidates were able to distinguish this variation they usually achieved well.

- 1 Milgram carried out some valuable research into obedience, including a number of variation studies.

Describe the procedure of the Rundown Office Block (Experiment 10) variation study.

Participants were taken to a run down office block for the study. They ~~are~~ took draws with a confederate, who they thought was a participant, participant automatically got the role of the teacher who would 'administer' electric shocks up to 450v to the learner (confederate) with verbal prods such as a mention of a heart condition to test how far the participant would go with administering the shocks - shocks would increase in 15v per shock and a sample shock of 45v was given to the participant before study began.



This candidate achieves two marks. There is no identification of the features of the variation 10 study other than repetition of the wording of the question "Rundown Office". Although the points made are clear, there is no link to the details of this specific study variation.



When giving procedures of variations, such as Milgram, candidates should make it explicit that they are aware of the procedural changes that were implemented in the variation, for example setting up the offices with sparse furniture.

- 1 Milgram carried out some valuable research into obedience, including a number of variation studies.

Describe the procedure of the Rundown Office Block (Experiment 10) variation study.

Milgram's variation studies were designed to test concordance rates between his original lab experiment and in this case, a run down office block. The reason for this setting was because it doesn't have the same level of prestige as the university used in the original study and was key in obtaining results that test obedience. The procedure was the same apart from the fact that it was carried out in a considerably less prestigious setting which Milgram thought could have changed the levels of obedience.



This candidate achieved 0 marks. The response describes the aims and rationale for the variation study. Stating that the procedure 'was the same' as baseline 5 is not sufficient to demonstrate they understand the procedure of variation 10.



Candidates should focus on the direction of the question, where a procedure is required they should concentrate on those points as aims, results, conclusions are not required or creditable.

## Question 2 (a)

This is an AO2 question where points made by candidates must be applied to the scenario of researching in-group favouritism. Generic answers scored 0 marks, for example 'What is your gender? Male/Female/Prefer not to say' which were not appropriate to the context. Candidates showed a good ability to distinguish between open and closed questions, and most scored full marks for this question.

2 Tim and Laura are undertaking a practical investigation using a questionnaire into in-group favouritism at their college.

(a) Suggest **one** open question and **one** closed question Tim and Laura could use in their questionnaire.

(2)

Open question

How do you think in-group favouritism is shown at this college?

Closed question

Do you see your own group as inferior to other groups  
 Yes  No  Sometimes



**ResultsPlus**  
Examiner Comments

This candidate achieves 2 marks. Both suggested questions relate to the study in the scenario.



**ResultsPlus**  
Examiner Tip

Understanding that closed questions have limited response options and being able to give examples of those can help candidates distinguish between open and closed questions when asked to present these in an exam.

## Question 2 (b)

This is an AO2 question and therefore points made by candidates must be applied to the scenario of Tim and Laura investigating in-group favouritism. Most candidates understood the purpose of a pilot study; however some responses were generic and did not give reasons for the pilot study in relation to this particular investigation of in-group favouritism using a questionnaire.

- (b) When conducting an investigation using a questionnaire a pilot study can be carried out. A pilot study is a small-scale preliminary version of a study which is carried out before the full-scale version of a study.

Suggest **two** reasons why Tim and Laura should carry out a pilot study before conducting their questionnaire.

(2)

Reason 1

To make sure the questions in the questionnaire are fully understandable and not too complex for the public/sample.

Reason 2

Allows complications that may arise in the pilot study to be dealt with before full-scale version. E.g. minimising distress.



**ResultsPlus**  
Examiners Comments

This candidate achieved 1 mark. The mark was awarded for the first reason where application to the scenario was given for the link to a questionnaire being used in the investigation. The second reason is a generic response where there is no link to the context of the investigation being conducted.



### Question 3

This is an AO1 and AO3 question where candidates are required to explain one strength of the study by Sherif et al. (1954/1961). The AO1 mark was awarded for the candidate's identification of a strength of the study and the second mark for AO3 was for the justification of this strength.

Most candidates showed strong understanding of the study and this was pleasing to see, however some candidates gave answers that were not specific to the study and were generic responses that could be applied to 'any' field experiment. Many candidates did not justify the strength they had given, making basic and rote learned statements such as 'so there is ecological validity' without any exemplification.

#### 3 Sherif et al. (1954/1961) conducted The Robbers Cave Experiment.

Explain **one** strength of Sherif et al. (1954/1961).

The children were matched based on age (11-12 years old), religion (Protestant) and athletic ability. This makes the two groups similar to each other and reduces participant variables so ~~there~~ the participant variables affect the results less and the results have more internal validity.



**ResultsPlus**  
Examiner Comments

This candidate achieved 2 marks. They were able to identify the strength of matching the boys taking part for AO1 and then developed this for AO3 to show that it is a strength as it reduces the influence of participant variables on the internal validity of the study.

3 Sherif et al. (1954/1961) conducted The Robbers Cave Experiment.

Explain **one** strength of Sherif et al. (1954/1961).

It was set in the participant's natural environment meaning it had high ecological validity. This would have decreased the amount of demand characteristics and ~~measures~~ the participants would not act any differently if the researchers weren't there.



**ResultsPlus**  
Examiner Comments

This candidate achieves 0 marks. The response is a generic point about natural environments and ecological validity and does not show any understanding of the study conducted by Sherif et al. (1954/1961).



**ResultsPlus**  
Examiner Tip

When giving strengths (and weaknesses) of studies, candidates must explicitly show understanding of these points in direct relation to the study they are being asked about giving specific points from the study itself.

## **Question 4**

Most candidates responded well to this question, attempting to assess the impact of individual differences on obedience. Personality was often stronger than gender in candidate answers, with gender often being general assertions and lacking substance or supporting evidence for the assessments. Some candidates gave good knowledge and understanding in this question, but did not assess whether or not obedience was affected.

For personality, candidates often included Authoritarian Personality and internal/external locus of control, although the latter was sometimes muddled. For gender, stronger candidates attempted to address gender role expectations, but this was often simple statements without development. Use of Milgram's Experiment 8, Sheridan and King (1972) and Burger (2009) was often seen in this response, although many candidates did not use these accurately. Where candidates muddled their responses, they tended to discuss cultural factors such as individualistic and collectivist and had no link to personality and gender. Some candidates also discussed the influences on prejudice, which did not answer the question.

Individual differences in personality and gender are dispositional factors, some of which are innate e.g. sex but most are shaped through the environment and individual experiences. The authoritarian personality states that people who grow up with strict, unfeeling parents are more likely to be obedient to higher authority but also more likely to impose authority on those they believe are inferior to them e.g. a manager of a workplace would follow instructions given by a CEO but treat the workers below them harshly. Society generally believes that females should be more obedient than males due to their upbringing and teachings of norms and social values e.g. being submissive. Milgram's agency theory also introduces the autonomous state in which people are more outgoing and generally take responsibility for their own actions, whilst those in the agentic state are more submissive and place responsibility of their actions onto higher authority figures. e.g. Personality factors such as empathy and culture also affect how obedient someone is.

Adorno's F scale found whether people had authoritarian personality types or not. This meant that people with these types of personalities were more likely to obey orders, but only if they are given by someone they view as a legitimate authority figure. Individuals who are in collectivist cultures, which are cultures where goals of the entire community are valued rather than the individual, are to be more

likely to be obedient than those in individualist cultures. A study conducted by Yahya and Shanab found that 73% of Jordanians in a study obeyed instructions given to them and communities from Jordan are collectivist. ~~the~~ Milgram<sup>1963</sup> found that even if participants were empathetic or felt sympathy towards the learner when shocking the learner, participants continued to shock the learner when they experienced agentic shift and transferred all responsibility for their actions onto the researcher, thus being in an agentic state.

However, participants who were empathetic were more likely to discontinue shocking when the learner (confederate) in Milgram's original study complained of feeling heart pain which means that having an empathetic personality can decrease obedience. Burger 2009 had a mixed sample of males and females yet still found that 30% of participants would continue shocking past 150v which shows that gender did not affect obedience in this case.

In conclusion, factors of personality e.g. empathy can have an effect on obedience however overall if an individual can shift their responsibility to another then they will be more likely to be obedient regardless of their personality type and gender.



This candidate achieves 4 marks.

AO1 Level 2 = The response is mostly accurate, however the references to culture are not creditable as there's no link to personality or gender being made.

AO3 Level 2 = There are some links to the impact on obedience of the relevant AO1 points made, but these are often superficial and at times inaccurate.

#### 4 Assess how individual differences (personality and gender) affect obedience.

(8)

Individual differences in personality involve locus of control as suggested by Rotter. Those with an internal locus of control are more likely to take responsibility for their actions, and are less compliant. Those with an external locus of control are more likely to displace their responsibility on to other people, and may ~~not~~ be more obedient. Burger et al measured locus of control, as well as empathy before he replicated Milgram's study of obedience and found that there was more protesting from those with higher empathy scores and internal locus of control, however this did not necessarily translate into lower levels of obedience in most cases. This suggests that it may be dependent on the situation an individual is in rather than their locus of control affecting obedience.

Adorno proposed his authoritarian personality whereby those who experienced harsh parenting are more likely to be <sup>obedient</sup> ~~submissive~~ to those above them in status, and are ~~less~~ more prejudiced to those lower than them. He tested this using his F-scale, measuring fascism and found those with higher F-scale scores had authoritarian personalities. Milgram used this F-scale in a study where he took 20 most obedient and 20 most rebellious participants and asked them to complete the F-scale, and found that the most obedient participants had higher F-scale scores.

suggesting that having an authoritarian personality makes you more obedient. However, the F-scale is based on self-report which may have issues in validity, as participants may answer in socially desirable manners, decreasing the validity of the findings. The F-scale therefore lacks internal validity and can't establish cause and effect.

<sup>differences</sup>  
Gender wasn't ~~measured~~ tested in Milgram's original study as he believed obedience was a ~~universal~~ trait that both males and females would present equally. He found males showed 65.5% obedience (administering full + sev.). He was criticised for showing  $\beta$ -bias and so he conducted studies on females in his variations and found ~~gender~~ gender had no effect on obedience. Similar findings were found by Burger (2009) in his Milgram replication, suggesting culture has no effect on obedience that is destructive. When asked to shock a puppy in a study, females were more resistant.

~~overall personality~~ Gender may have small effects but overall ~~they~~ it does not necessarily translate to lower obedience. Personality however does affect obedience as suggested by Adorno.





This candidate achieves 6 marks.  
AO1 Level 3 = There is accurate knowledge, with little confusion and some good understanding of personality and gender.  
AO3 Level 3 = Developed assessment and understanding of competing arguments is present.



For Level 4 the links to the effect on obedience could be further advanced, for example the evaluation of F-scale could have demonstrated how this would relate to personality theory explanations of obedience.

## Question 5 (a)

This was an AO2 maths calculation assessing the skill of calculating a mean score; responses were required to one decimal place and both needed to be correct for the mark. The majority of candidates were able to achieve the mark for this question.

- 5 Mr Robinson has asked geography students and mathematics students to take part in an experiment. He asked both sets of students to learn a list of 20 words. The mathematics students were given an interference task before retrieval of the word list. The geography students did not have an interference task.

**Table 1** shows the results of Mr Robinson's experiment.

Participant	Number of words correctly retrieved (out of 20) by mathematics students	Number of words correctly retrieved (out of 20) by geography students
A	15	9
B	7	10
C	9	5
D	14	8
E	12	8
F	16	5
G	10	8
H	9	11
I	9	13
J	15	8
<b>Mean</b>	11.6	8.5

**Table 1**

- (a) Calculate the mean number of words retrieved by the mathematics and geography students and complete **Table 1** with your answers.

You **must** give your answers to one decimal place.

add up ÷

**SPACE FOR CALCULATIONS**

(1)



This candidate achieves 1 mark for the correct calculations.

## Question 5 (b)

This question is assessing AO2 mathematical understanding and application, where candidates must explain which statistical (inferential) test Mr Robinson would have used to analyse the data. The correct test was a Mann Whitney U test and one mark was awarded for correctly identifying this. Many candidates were able to do so and achieved the mark here.

The second mark was awarded for the reason why this would be used in relation to Mr Robinson's data. Candidates were often able to give statements of why a Mann Whitney U test would be used, but often these were generic and not explaining why it would be used based on the scenario they had been given.

(b) Explain which statistical (inferential) test Mr Robinson would have used to analyse the data.

(2)

Mann-Whitney U: This is because it is ~~an~~ a test of difference as two different conditions are being compared and it is an experiment. ~~This also~~ The study is also uses independent groups (Maths students vs geography students). Finally, the participants all have their own scores which can be ranked, displaying ~~and~~ the data is at least ordered. Therefore he



**ResultsPlus**  
Examiner Comments

This candidate achieves 2 marks.

The first mark is for the correct statistical test and the second is for a correct justification using independent groups of maths and geography students.

(b) Explain which statistical (inferential) test Mr Robinson would have used to analyse the data.

(2)

It is an Independent measures design with ordinal data so Mann-Whitney U test



This candidate achieves 1 mark.

A mark is awarded for the correct statistical test, however there is no justification of this choice in relation to the study the candidate has been presented with, therefore the second mark is not awarded.

## Question 5 (c)

This question was assessing AO2 application and AO3 justification of a strength of quantitative data in relation to the study in the scenario given. Many candidates did not always identify the strength for this study and gave generic, rote-learned responses about quantitative data. Where they had identified the strength for this study, the development of this was not always sufficient to achieve the AO3 mark.

(c) Explain **one** strength of Mr Robinson using quantitative data in his experiment.

(2)

An advantage of using quantitative data is that the data can be analysed statistically and therefore specific conclusions can be drawn due to averages being found which can then be compared to other pieces of data.



This candidate scores 0 marks.

The response is a generic point about quantitative data and does not relate to the scenario context they have been given.



Where a question requires application, the question will direct their response, such as '[...] Mr Robinson' [...] 'in his experiment', and candidates should apply their understanding to the context they are presented with in the scenario.

(c) Explain **one** strength of Mr Robinson using quantitative data in his experiment.

(2)

Quantitative data is a strength as the data is objective. This is because quantitative data ~~is~~ <sup>is</sup> has a numerical value which means that Mr Robinson can objectively say that a participant achieved 8 out of 20 on their list of words, <sup>for example,</sup> rather than using qualitative data which is more subjective and therefore harder to decipher/analyse.



**ResultsPlus**  
Examiner Comments

This candidate achieved 2 marks.  
AO2 identification of the strength of using objective data about the number of words recalled.  
AO3 justification of objectivity through the point about why numerical data is not open to subjective analysis.

## Question 6

This question was assessing AO2 application of candidates' understanding of schema theory to the scenario of Mo and Akeem witnessing a man steal a bag in a restaurant. Many responses here were generic, where candidates did not use their understanding to engage with why Mo and Akeem may recall the incident differently. Most candidates gave generic descriptions of schema theory and did not achieve significant marks on this question. Errors were seen in some responses where candidates had used an incorrect theory, often referring to a lack of rehearsal to transfer to long term memory.

### 6 Mo and Akeem witness a man steal a bag in a restaurant.

Using schema theory, suggest why Mo and Akeem may recall the scene in the restaurant differently.

Schema is a form of memory reconstruction & possible displacement as they may have each focussed on different elements or events within the event. Reconstructive memory can differ as they may also remember elements of a different event along side & therefore join the two together giving different answers to the same scene.



**ResultsPlus**  
Examiner Comments

This candidate scores 0 marks.

Response is generic and does not explain why Mo and Akeem recall the scene in the restaurant differently.





Where candidates are asked to relate their responses to a stimulus, the application of understanding should have a clear link to the scenario.

**6** Mo and Akeem witness a man steal a bag in a restaurant.

Using schema theory, suggest why Mo and Akeem may recall the scene in the restaurant differently.

As schemas are parcels of information which are subjective and dependent on individual experiences, Mo and Akeem may <sup>recall the</sup> ~~have witnessed~~ scene differently due to their own individual experiences impacting their schemas. For example, Mo's schemas may be that the man stole an empty bag in the restaurant whilst Akeem's schemas ~~make him~~ mean that he recalls the man stealing a bag with items inside it. This may be because Akeem when Akeem thinks of a ~~bag~~ 'bag', his schemas of a bag are of ~~ea~~ money, purse, pencil case, and more objects in the bag whilst Mo's schema may not associate objects with the bag; hence, they recall the scene differently.



This candidate achieves 3 marks. The understanding is embedded in the first part of the answer; however it is generic and does not achieve a mark at that point. There are three creditable points. One is for Akeem's schema about items inside a bag. A second is what Akeem's schema of a bag is. The third mark is about Mo's different schema of a bag not having items.

## **Question 7**

Candidates were required to evaluate the working memory model (Baddeley and Hitch, 1974), and many responded to this question positively, giving good evaluation and demonstrating strong understanding of the model and supporting evidence for and against it. Where candidates struggled it was often with the AO3 skills, giving underdeveloped exemplification and points that were not always well connected to the knowledge and understanding that they had demonstrated.

## 7 Evaluate the working memory model (Baddeley and Hitch, 1974).

(8)

The working memory model (WMM) is a model of memory which suggests there are multiple parts of the short term memory (STM) including the central executive, phonological loop, visuospatial sketchpad and the episodic buffer.

The WMM builds on from the multi-store model (MSM) of memory as it explains the STM in parts and develops a more detailed explanation for memory. In addition to this strength, the WMM is still developing over time instead of being a static theory, this development is evident through the addition of the episodic buffer, as Baddeley and Hitch suggested the central executive couldn't process memories and control the functions that fast something needed to be in the middle. This adds validity to their theory as it suggests change over time in knowledge. However, while the WMM shows the functions of STM it fails to explain the long term memory (LTM) and what it consists of, other than just suggesting it has an unlimited capacity.

In addition to this limitation, it is hard to tell the parts of the STM apart. For example, the visuospatial sketchpad and the phonological loop are closely linked as they both use the senses. Even further with the two parts of the phonological loop: the phonological loop and the articulatory store, which are hard to distinguish solidly. On the other hand, Baddeley provided supporting evidence of the stores being

separate by conducting an experiment of driving and listening to music in which he found it was possible to do because the music was in the phonological loop, being rehearsed by the articulatory store and driving the car required spatial awareness and relying from the visuo-spatial sketchpad, therefore supporting the idea of separate stores.



**ResultsPlus**  
Examiner Comments

This candidate achieves 5 marks.

AO1 Level 3 - The response shows accurate understanding of working memory model with clear points.

AO3 Level 2 - There are some superficial evaluation points but they are under-developed and achieve level 2.

## Question 8

This question was assessing AO1 knowledge and understanding of the process of synaptic transmission. Many of the responses to this question were quite muddled, confusing the terminology and process. Common errors were seen in referring to neurons as neurotransmitters, neurotransmitters travelling down axons, and confusing post-synaptic and pre-synaptic.

8 Describe the process of synaptic transmission.

The brain is ~~made of~~ has a network of pathways called neurones. An action potential is sent along the axon until it reaches the axon terminal. ~~A~~ neurotransmitters are released into the synaptic gap which diffuse across the synapse. The neurotransmitters attach onto receptors on the dendrites of the next neurone. When enough receptors have been activated a new electrical impulse is sent along the axon <sup>this</sup> of ~~the~~ neurone.

(Total for Question 8 = 3 marks)



This candidate achieved 3 marks.  
There are more than three accurate points given in the response and the candidate achieves full marks here.

## **Question 9**

9a

This question was assessing AO2 mathematical skills in calculating a Spearman's rank correlation coefficient for Rafiq's study. Candidates generally achieved well on this question, with many accessing four marks. Where candidates failed to achieve the full marks available they had often given the answer without the minus or had missed the step in the formula of subtracting from 1 in the formula. Nonetheless, a significant improvement from 2017 was seen in candidates' ability to calculate mathematics in this question.

9b

This question was assessing AO2 mathematical skills and AO3 justification of whether the research hypothesis in the scenario should be accepted. Candidates were usually able to correctly judge the calculated value and critical value, but many failed to justify whether the hypothesis of the study should be accepted, often giving a generic answer that did not link to the scenario.

9 Rafiq carried out a correlational study to investigate whether there was a relationship between age and number of hours of sleep per night.

(a) Complete **Table 2** and calculate the Spearman's rank correlation coefficient for Rafiq's study.

(4)

Age	Rank 1	Number of hours sleep	Rank 2	d	d <sup>2</sup>
17	2.5	10	6	-3.5	12.25
17	2.5	11	7	-4.5	20.25
20	4	6	2.5	1.5	2.25
24	6	7	4	2	4
21	5	4	1	4	16
16	1	9	5	-4	16
40	7	6	2.5	4.5	20.25
<b>Total:</b>					91

**Table 2**

**SPACE FOR CALCULATIONS**

$$1 - \frac{6 \sum d^2}{n(n^2 - 1)}$$

$$1 - \frac{6 \times 91}{7(49 - 1)} = \frac{-5}{8}$$

Spearman's rank correlation coefficient ..... 0.625



(b) Rafiq used a non-directional (two-tailed) hypothesis.

Explain whether Rafiq's data were significant at  $p < 0.05$  and if the research hypothesis should be accepted.

(2)

The calculated ~~eva~~ value (0.625) is lower than the critical value  $t_{\alpha/2}$  (0.786 at  $p < 0.05$  for a two tailed test) which therefore means that there is no significance and the null hypothesis is accepted.



This candidate achieves 3 marks for part a) as the calculated score was given without the minus. They achieve 1 mark for part b) for the calculated and critical value with the correct relationship, however there is no second mark as the candidate does not relate their decision to whether the hypothesis about age and number of hours slept should be accepted.

## Question 10

This was a discuss AO1 knowledge and understanding and AO2 application of theory, concepts and/or research to the key question of relevance to society from biological psychology. Many candidates struggled to present their AO1 for the key question, often not engaging with content such as how the key question is relevant for today's society, how the key question is likely to affect individuals in society or how the key question is likely to affect society as a whole. This limited a number of responses to lower marks. The AO2 use of theory, concepts and/or research was stronger, with a range of theories from the specification content used to explain the key question.

A number of centres have selected key questions that are holistic over various topics, for example in relation to Anorexia Nervosa, Schizophrenia, or Alzheimer's/dementia. This is perfectly acceptable practice and has worked very well in a number of cases where candidates responded using these key questions and linking very clearly to the biological content; however a number of candidates did confuse topics and gave the incorrect explanations from the wrong topic area. Centres taking this approach may wish to ensure the candidates spend time differentiating between key questions that are used in more than one topic area.

Common key questions seen included;

- How effective is drug therapy for treating addiction? This was generally well answered, with candidates able to distinguish between AO1 and AO2, giving relevant information about the impact of drug addiction on individuals and society and linking this well to AO2 in order to explain why addiction occurs and/or how to treat addiction using biological concepts.
- What are the implications for society if aggression is found to be nature and not nurture? This was generally not well answered, with candidates often debating aggression using nature versus nurture for AO2 content, but not sufficiently addressing AO1 to show the implications for society or what the key question was aiming to address.

The key question is # what are the implications for society if aggression is due to nature and not nurture.

This issue has developed from the situation which involved Luis Suarez who ~~hit another player~~ displayed acts of aggression by biting another player. As this was the third time he had done so, many people have argued whether his aggression is innate and inherited or not. ~~Sam~~

Biological psychology can explain his behaviour using the explanations of hormones and brain structure.

# The hormone of testosterone is ~~more~~ prominent in males and this hormone develops during pregnancy where ~~testo~~ it causes spatial awareness and, more significantly, competitive aggression. This relates to Suarez who bit the player; he may have a high level of testosterone which results in the competitive aggression.

~~Edwards et al~~ Edwards et al supports this as when he injected castrated rats with testosterone he found that the rats then displayed acts of aggression.

Brain structure can also lead to aggression. Suarez may have a more prominent amygdala which is the brain responsible for emotion and aggression. Additionally, his pre-frontal cortex may be damaged thus resulting in aggression. This is because the frontal lobe deals with decision

making and aggression as well, supported by Kaire et al.



This candidate achieved 4 marks.

AO1 Level 1 - There is only one sentence about 'Luis Suarez' which is very isolated understanding of the key question about implications for society, there is no further link to relevance of the question in society, impact on society or individuals.

AO2 Level 3 - There is a grasp of competing arguments and some application of theory/concepts/research, most are relevant but lack the depth and development required to meet level 4.

## **Question 11 (a)**

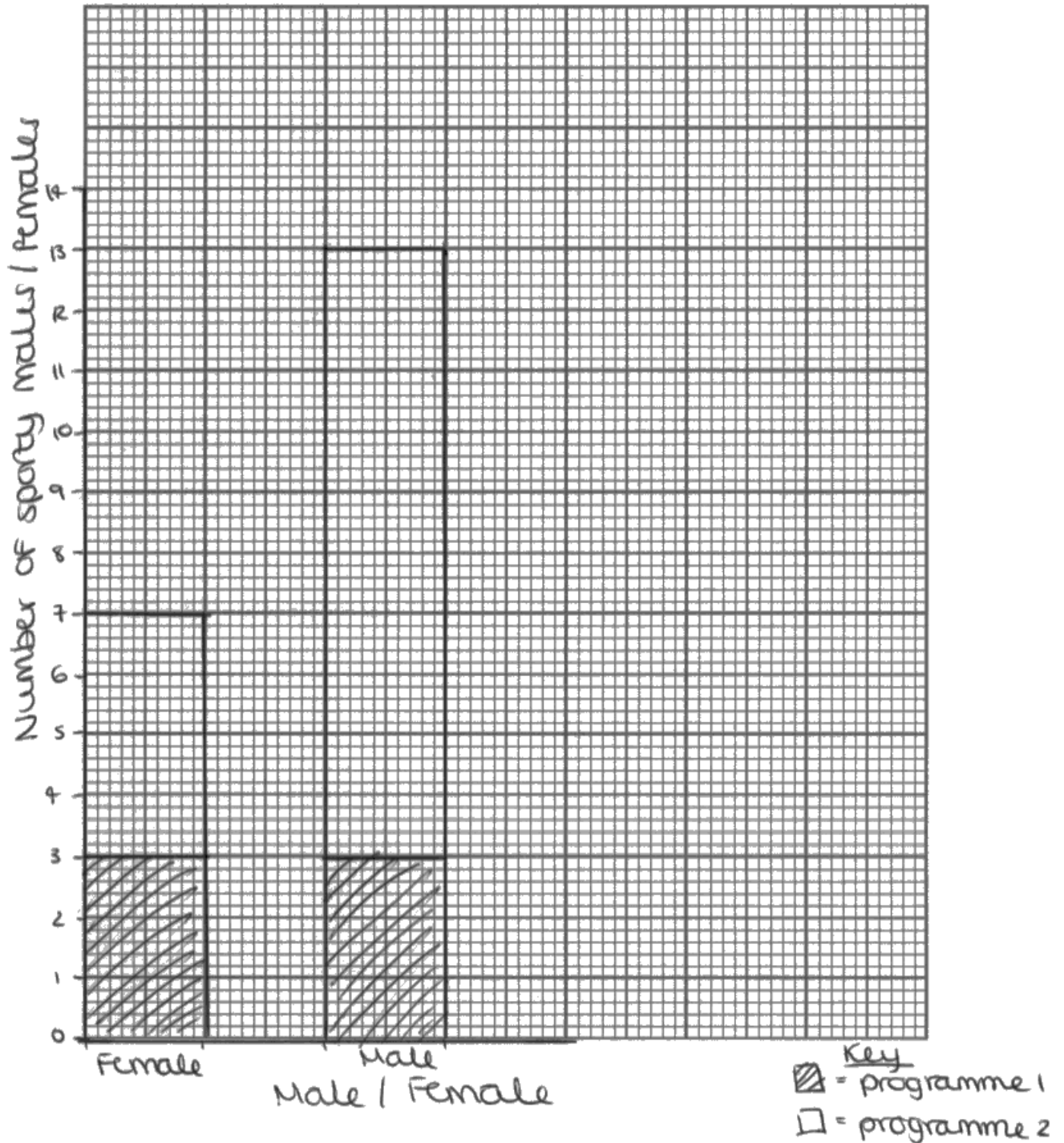
This question required candidates to draw a bar chart to represent the data for sporty females and males from Table 3. Credit was given for the title, plotting of bars and labelling of the axis. Candidates often achieved full marks for this question. However, common errors were seen where candidates plotted all the data from Table 3 or where they did not plot discrete bars. There were some candidates who did not give a full title in relation to showing the data was from television programmes.

(a) Draw a bar chart to show the total number of sporty males and sporty females shown in **Table 3**.

(3)

Title

A graph to show the number of sporty males and females presented in 2 kids TV shows.





This candidate achieved 3 marks.

The title, labels and plotting each achieved a mark. The key for the bars by programme was not necessary for the mark, the candidate accesses the plotting mark as the totals (7 and 13) are correct.

## Question 11 (b)

This question was assessing AO2 understanding about what can be concluded for the study undertaken in the stimulus material, with AO3 justification of that conclusion drawing from the data presented in the scenario. Most candidates struggled to draw a conclusion in relation to the scenario, often not making any link to gender portrayal on television, instead they often gave a description of the results in the table and achieved 0 marks.

(b) Explain **one** conclusion that could be drawn from Mandeep and Priya's investigation.

(2)

Programme 1 was very gender neutral when it came to showing sporty people. The programme show 3 sporty males and 3 sporty females. However programme 2 was a lot more geared towards males being sporty. There were 10 sporty males, compared to only 4 sporty females.



**ResultsPlus**  
Examiner Comments

This candidate has described the results of the study and achieves 0 marks.

(b) Explain **one** conclusion that could be drawn from Mandeep and Priya's investigation.

(2)

There are a higher number of women who are portrayed as 'emotional' ( $7 + 9 = 16$ ) than the number of males ( $2 + 1 = 3$ ). It can be concluded here the females are more likely to be portrayed as emotional in comparison to men.





This candidate achieved 2 marks.

The conclusion that females are portrayed as more emotional as men is supported by relevant links to the data.

## Question 11 (c)

Candidates struggled to give a well-developed response to this question. Most were able to achieve the AO2 application mark through identification of a methodological issue with the content analysis undertaken in the scenario, but the AO3 justification of this issue was elusive. Most candidates gave brief, rote-learned statements that did not develop their answer.

(c) Explain **one** methodological issue there may have been with Mandeep and Priya's content analysis.

(2)

One methodological issue is that a content analysis should be of media in general yet Mandeep and Priya only used two television programmes. This is an issue as television is not representative of all of media so they cannot generalise their findings to different forms of media such as music, magazines, articles, etc.



This candidate achieved 2 marks.

They have identified an issue in relation to the scenario and justified this in terms of representativeness of all media.

## Question 12

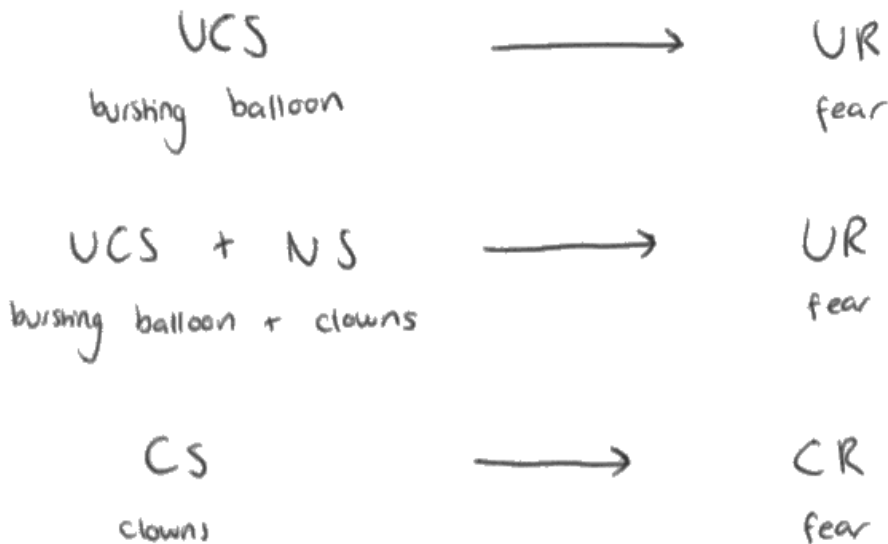
This was an AO2 application question and the responses were required to be applied to Jodi and her fear of clowns. Candidates approached this question well, and in this case a range of good application was seen in answers. Few candidates did not achieve marks here, and where they did not do well it was often due to confusion over what was the unconditioned stimulus and neutral stimulus.

**12** Jodi attended a number of birthday parties when she was younger. At all of the parties there was a clown who burst a balloon which scared Jodi. Jodi is now fearful of clowns.

Using your knowledge of classical conditioning, explain how Jodi developed a fear of clowns.

Jodie had an unconditioned response of fear to a balloon being burst, which was an unconditioned stimulus. The clown was a neutral stimulus ~~until it~~ and had no response until it was paired with the unconditioned stimulus of the balloon popping which led to the unconditioned response of fear. Jodie then associated the unconditioned fear stimulus of balloon bursting to the clown, which became a conditioned stimulus because of the association, resulting in the new conditioned response of fear to the stimulus.

(Total for Question 12 = 4 marks)





This candidate achieved 4 marks. Unconditioned response of fear to a balloon bursting is creditable, the neutral stimulus has been explained as the clown, the process of associating the balloon bang with the clown is clear, and how this becomes a conditioned stimulus achieved a final mark.

## **Question 13**

As a methodology question, candidates often struggled to achieve well on this question. There was often limited or inaccurate knowledge and understanding of the observational method, with the most confusion seen in the differences between overt and covert observation. Addressing the AO3 development about how useful this method is when researching human behaviour was often difficult for candidates to achieve. Some candidates were able to include research examples to demonstrate the usefulness of observational methods.

Common misconceptions included errors such as a non-participant and/or naturalistic observation being synonymous with covert and that participant and/or structured is synonymous with overt; and also that overt is just 'being visible' and that covert is just being 'hidden from view'.

13 When studying learning theories you will have covered the observational research method for human research.

Evaluate the usefulness of observational methods for studying human behaviour.

participant, structured  
cover, overt

401  
(8) 403

There are many types of observations. Structured observation is when the observation is controlled and the specific behaviour as well as whether the behaviour is recorded ~~intentionally or so~~ in intervals or ratios is predetermined. This is useful as it allows ~~the study~~ <sup>the study</sup> ~~researcher~~ to be more reliable.

Bandura, for example, ~~made~~ told the researchers that they need to record aggressive acts every minute. This allows for a standardised procedure to be established which is useful for making ~~exp~~ observations more reliable.

In addition, there is participant observation. This means that the researcher is part of the participants and observes their behaviour, often recording everything after the event. This is useful in research as it allows for the researcher to gain deeper insight into the behaviour of participants. ~~and~~ However, the results of this type of observation can become ~~use~~ less useful if the researcher

becomes subjective as the observation loses its reliability.

Furthermore, there are two types of participant observation, covert and overt. Covert observations are more useful in that participants do not know the true ~~idea~~<sup>purpose</sup> of the researcher so they won't show demand characteristics. This is useful when observing natural behaviour such as human interactions and how they learn behaviour. Also, this makes research valid meaning that they are more useful when explaining ~~as~~ everyday behaviour compared to ~~to~~ lab experiments.

Overall, observations are very useful in studying human behaviour.



**ResultsPlus**  
Examiner Comments

This candidate achieved 5 marks.

AO1 Level 2 - Mostly accurate knowledge and understanding is shown with a range of observational methodology content.

AO3 Level 3 - Mostly coherent reasoning with a grasp of competing arguments and some use of example evidence to support their evaluation.



For higher marks a candidate should engage with the evaluation in terms of usefulness more coherently along with presenting more accurate knowledge and understanding of the methodology.



## **Question 14**

Candidates were not always able to show understanding of practical issues, and these issues were then not always well supported with relevant application to learning and/or biological psychology. Many candidates gave an 'ethical issues' response rather than a practical issues response, and whilst ethics can be a practical issue, in that it can limit the nature of the research, most ethical considerations were not usually applied to the practicalities of research. It is worth noting that errors were often seen in those answers in regard to issues of consent in Brendgen, Bandura, and Watson & Rayner where the children not giving consent was raised, which is inaccurate as the parents would give consent here.

Many answers focused on using non-human participants, generalisability, reliability and validity as AO1 understanding of a practical issue; this was not always well presented as a discussion of the practical issue of how these are achieved or not achieved. Few responses included other practical issues such as time; cost; resources/apparatus (although this was seen occasionally about the use of brain scanning techniques in biological psychology); sampling technique; research/experimental design choices; or methodology selection.

For AO2 application to learning theory and biological psychology some examples were seen of appropriate research methodology and appropriate examples of studies; many were used to highlight the practical issue given for AO1. The most common practical issues used included the use of animal research and brain scanning techniques.

14 Discuss the practical issues faced by psychologists when designing and implementing research in learning theories and biological psychology.

(8)

There are three key issues faced by psychologists when designing and implementing research; the reliability, validity and generalisability of the research. Reliability refers to whether the study can be replicated to produce consistent results. ~~the~~ <sup>This</sup> ~~biolog~~ is less of an issue in biological psychology, which often ~~using~~ uses brain scanning techniques (e.g. CAT scans, PET scans and fMRI scans) when conducting research. Brain scanning techniques are highly scientific and objective, as they standardised procedures; as a result, this method is highly reliable. Brain scanning techniques are, however, often invalid as they cannot display the results of real-life behaviour. Validity refers to ~~the~~ whether behaviour is a reflection of real life (natural). In Raine et al (1997), NARIs were brain scanned in order to assess whether ~~their~~ their aggression was a result of abnormalities in brain functioning. This was an invalid way of assessing behaviour as the NARIs were not experiencing an aggression provoking situation at the time of the scan.

The learning theories approach, on the other hand,

experiences a third issue: generalisability. Generalisability refers to whether the findings of a study are useful when discussing universal behaviour, taking ~~it~~ into consideration the context of the research. This is an issue in the learning theories because this approach often uses animal research. For example, Pavlov (1927) used dogs to display how a stimulus (metronome) that previously had no relation to a reflex response (salivation) could be paired repeatedly to produce an association between a conditioned stimulus and an unconditioned stimulus (food) resulting in a conditioned response. This study has limited generalisability as dogs have significant biological differences from humans so the behaviour is difficult to draw generalisable conclusions from. This issue is particularly problematic when a theory is based off research (such as the case of classical conditioning being built upon Pavlov's study) as it is attempting to create nomothetic laws from an ungeneralisable and unrepresentative study.



This candidate achieved 6 marks.

AO1 Level 3 - There is strong, accurate knowledge and understanding of practical issues which are at the top of level 3.

AO2 Level 3 - Relevant application of learning theory and biological psychology, grasping how the issue impacts on these two areas.

## **Question 15**

This was a 'To what extent?' AO1/AO3 question. Candidates often gave some AO1 understanding from social and cognitive in the form of examples of where nurture and nature can be evident, but with little engagement with the question requirements to address the extent to which each approach draws on nurture and nature. Where candidates did attempt to engage with the debate of 'to what extent' they were largely giving points to show examples of where nurture is or is not considered as a feature in social and cognitive psychology, but this was largely knowledge and understanding. Candidates were rarely using evidence to back up their responses, and as such the AO3 within the responses seen was not strong.

Many presented 'two essays', one for each area of psychology, but they did not tend to synthesise these to judge the extent to which social and cognitive psychology draw on nurture. Some candidates muddled their content and gave responses using social learning theory for social psychology, and some were confusing biological psychology with cognitive psychology.

15 To what extent do social psychology and cognitive psychology consider human behaviour to be determined by nurture?

Nurture is the view that behaviour is <sup>(12)</sup> ~~is~~ <sup>and thoughts</sup> learnt through the environment, and is not biologically ~~at~~ determined, which is the nature view. This can include learning through your own experiences ~~of~~ or that of others experiences.

In social psychology, Adorno suggests that the authoritarian personality is developed when an individual is raised by strict, non-loving parents. This is ~~to~~ an environmental role played by the parents. This results in the ~~to~~ individual being more prejudiced to those of a 'lower status' and projecting anger onto others. This suggests that an authoritarian personality is due to nurture. Social impact theory states that as the strength, immediacy and number of the ~~target~~ <sup>source</sup> increases, the ~~rather~~ social force and influence on the target becomes greater. This suggests that obedience and group influence can be increased due to changes in the environment, which is nurture. However, Milgram suggests that we are obedient ~~due~~ ~~to~~ due to ~~no~~ ~~evolution~~ which is nature. He says in the evolutionary part, people at the bottom of the

hierarchy followed the instructions of those at the top of the hierarchy, hence creating a social order and a cohesive ~~order~~ community. This suggests means that we are innately obedient due to evolution, and the environment plays no role. But, this cannot explain why individuals don't follow the law and commit crimes.

Bartlett's reconstructive schema theory states that memory is not like a tape recorder and so there are some elements of a memory missing. He suggests we fill in these gaps in our memory using schemas, which are a set of mental representations built up through experiences. We all have different experiences as we all live different, separate lives and so our schemas are determined by our environment, which is nurture. So, when we act in a certain way due to our schemas ~~is~~ it's due to nurture, e.g. Bartlett found that people used their own cultural schemas ~~at~~ when recalling the 'War of the Ghosts' story, e.g. by changing a canoe to a boat.

Tulving's episodic memory states that our environment helps us ~~also~~ encode our memory and act as context cues when recalling a memory which is nurture as we all use different context cues. However the MSM, states that

we all innately have a sensory store, STM and LTM, and the ability to make memories and store them as if it is part of the brain, which is nature. Similarly, Bartlett states that everybody is capable of making a schema as it is ~~that~~ innate, only ~~that~~ thing influenced by nurture is what the schema is. Tulving found that there was increased blood flow to the frontal lobe when thinking of episodic memories. This shows that the brain is involved in our memories and behaviour, suggesting that nature also plays a role in ~~our~~ our behaviour.

In conclusion, both social and cognitive psychology have elements of nature and nurture, so they both provide a holistic view of human behaviour.



**ResultsPlus**  
Examiner Comments

This candidate achieved 10 marks.  
AO1 Level 4 - Thorough, accurate content, although some points could be more comprehensive for the top of level 4.  
AO3 Level 4 - Well developed and logical competing arguments which are balanced. Does not fully judge "The extent" thus not top of level 4.



# Paper Summary

## RECOMMENDATIONS

- Based on their performance on this paper, candidates are offered the following advice:
- Some candidates may benefit from practising their timing and balance of content in responses. Many candidates did not appear to draw on the question size to aid in their examination timing, giving more detail than required in short-answer questions.
- The understanding and evaluation skills for research methodology were not as strong as seen in the theory or study questions. Candidates should review their methodology components to the depth they have done for theory and studies.
- Candidates should clearly apply their understanding of psychology to the context in a given scenario, they should not just give a name or single word as this is insufficient as an application skill.
- Generic points should be avoided, candidates should be able to give specific responses that are clearly linked to the question content and taxonomy, for example when giving a strength of a study, it should be explicit how the point made relates to the study.
- Where candidates are expanding their points, the use of evidence and supporting/contesting concepts could aid them in exemplifying their knowledge and understanding as appropriate.
- Candidates should consider their key question of relevance to society and have a clear focus about how or why this key question is of relevance to society.
- Candidates conduct mathematical calculations well, however they are less able to rationalise the choices made in the mathematical decision making processes and would benefit from a fuller understanding of the statistical decision making process.

## Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>



