

Examiners' Report  
June 2016

GCE Psychology 8PS0 01

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## Introduction

As the first examination of the new linear format GCE AS Psychology. The examination structure provided a range of question types over two main sections, social psychology and cognitive psychology, with a final extended response requiring candidates to address a theme that occurs in both social and cognitive psychology. 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 very few unanswered questions being seen and most candidates making attempts at all questions, which was very positive to see. Strengths were seen in the understanding of obedience and Milgram, along with the procedure of contemporary studies, where some candidates have really excelled. There was a general weakness in giving strengths and weaknesses of the working memory model, the social practical and writing a hypothesis. The remaining areas of development often relate to candidate skills and application.

Candidates did struggle with the structure of their response content, and the assessment objective requirements throughout the paper. Equally, many candidates appeared unaware of the differences in the taxonomy of questions, and did not differentiate their responses to answer the question being asked. Candidate performance overall was mixed. Some candidates were able to use their knowledge to achieve good marks by responding to the questions accurately throughout the paper. Other candidates have performed less well as a result of not fully understanding the requirements of question types and as a result limited and generic responses have been provided in these cases, this is especially evident in evaluations of studies.

One of the main areas for development noted following this examination is the candidate misconception of assessment taxonomy words. Many candidates have struggle to achieve high levels on all the extended open response questions of of 8 marks and above as they tended to provide generic descriptions that were often unconnected to their evaluative points, rather than developed chains of reasoning underpinned with AO1 knowledge and understanding points as required in the level mark bands. Whilst many of the detailed descriptions seen demonstrated that candidates have worked hard on their studies and understand these, which is really positive, this structure often led to imbalanced responses, where candidates struggled to develop chains of reasoning throughout their answer. Many used extra paper to complete these essays as a result of the detail provided when giving generic information, and it is quite likely that candidates timing in the exam would have been affected by doing so. Most candidates have been limited to low level mark bands as they have not provided coherent reasoning as a result of poor essay structures. In addition, very few candidates made conclusions, either throughout or at the end of their responses, again limiting their overall level.

When giving extended open responses, candidates should be aware of the question taxonomy, 'evaluate' and 'assess', for example, are different skills, but many candidates on question 5 did not fully read the question and simply evaluated the ethical issues of Milgram's work.

A final comment is that a number of generic points were given when evaluating studies, and these had no underpinning knowledge of the study. When evaluating a study, candidates should be reminded that they must be specific in their evaluations and not give pre-learned points that have no explicit connection to the study itself. Some candidates presented identical generic points for question 3 and question 8(c), which are not always creditable without knowledge and understanding of the study.

Centres are directed to the levels based mark bands and the exemplar responses provided on the website that give indications of how candidates can structure extended open responses.

However, many candidates demonstrated a good understanding of their studies, and although this resulted in excessive content in questions 3, 5 and 8(c), it did benefit them in

question 7 where they had to give the procedure of a study for 5 marks. This was generally very well answered and candidates can be commended on their understanding of the procedure for their contemporary study. Performance was overall very good on this question and many candidates presented strong, detailed responses here.

A second reflection, evident from a number of responses, is that candidates are not applying their knowledge and understanding for AO2 marks when directed to explain a concept in a stimulus context. At AS Level there is a specification requirement for 30-35% of the examination to assess skills of application of knowledge and understanding to scientific ideas, processes, techniques and procedures. Candidates have particularly struggled with this skill, giving generic responses. This was especially evident in questions 2(b), 6(b) and 9. Application requires the candidate to make a clear link to the behaviour or scenario in the stimulus and explain that particular context, therefore the use of a name alone does not meet the criteria for application. Some candidates were hindered in question 9 as a result of this, and some good evaluations of quantitative and qualitative data were seen without application to the stimulus and how each would be appropriate or not for the context given. Overall, poor application in responses where this is required has limited some candidates.

Finally, responses in relation to the candidate practical were very mixed. Some candidates discussed an incorrect practical rather than the social practical using questionnaires, evident through references to interviews, experiments and observations. Candidates also gave generic and limited responses to improvements, not clarifying how or why this would improve their own practical, but giving vague ideas and concepts. Centres would benefit from reminding candidates that their practical can be assessed in their examinations and that they should be able to describe and evaluate all the processes involved in their practical and to ensure they are clear when discussing their practical work in examination responses. There were some very interesting topics selected for the social practical and some centres have very clearly made the most of the opportunity for candidates to engage in psychological research of their own, this was really positive to see. Practical work should be ethical, and it is worth reminding candidates that the research they conduct must meet ethical guidelines.

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 8PS0/01 examinations.

## Question 1

Overall candidate performance on this question was very good. Most candidates were able to define 'agentic state' and demonstrated their understanding well.

This question is an AO1 knowledge and understanding question, whereby candidates can use a combination of features of agentic state to develop a full definition.

Commonly seen content included to blindly follow orders; displace responsibility to authority figure; give up free will; experience moral strain against conscience. A number of candidates used accurate examples, often referring to Milgram's participants following orders to electrocute *knowing* it was harmful and *not wanting to*, however some examples given simply stated the results from Milgram's studies, these unfortunately did not add to the definitions and were not always creditable.

A common error seen in a number of responses was reference to 'when you act as an agent' which is insufficient for a definition as it does little more than reword the question. Additionally, there was insufficient emphasis in some responses that following orders in an agentic state is more than simply 'following instructions', there needs to be a clearer connection to the theory.

Centres should remind candidates that they should provide developed responses rather than bullet points or single sentences to demonstrate their understanding of a concept.

### SECTION A: SOCIAL PSYCHOLOGY

Answer ALL questions.

- 1 Define the concept of 'agentic state' as part of agency theory.

In the agentic state, we act as agents of others, mindlessly, accepting orders from someone who has a higher authority. In this state of mind, we let the person with authority to take full responsibility and give up our free will.



**ResultsPlus**  
Examiner Comments

This response gives a full definition of 'agentic state' using accurate terminology and achieved 2 marks.

## Question 2 (a)

Candidate performance on this question was mostly good. Some candidates were able to give two accurate reasons for David's behaviour using social impact theory, showing good application for AO2 in their responses.

A common focus was the teacher's strength of source and proximity of teacher to David. Most common errors seen on this question were references to agency theory and social identity theory rather than social impact theory. It was evident that some candidates were unclear of the distinction between authority figure and strength of source, and as a result their responses were often poorly applied or inaccurate.

- 2 David and Sarah were using their mobile telephones during a lesson. Their teacher asked them to put the mobile telephones away. David immediately put his in his bag, but Sarah refused.

(a) Using your knowledge of social impact theory, identify **two** reasons why David followed the teacher's instructions.

(2)

The strength of the source is powerful as the teacher is an authoritative figure so this may influence David to be obedient. Furthermore, the immediacy of the source by having the teacher in the same room as him giving direct orders may be another reason.



### ResultsPlus Examiner Comments

This candidate has given two very well applied reasons why David followed the teachers' instructions. The two reasons are clear, and for the AO2 application marks the candidate has made accurate and appropriate reference to the teacher and the context. This is a well answered response achieving 2 marks.



### ResultsPlus Examiner Tip

Where questions require application, the question indicates this clearly. Candidates should always link their responses back to the scenario to achieve the marks. These applications should show understanding through the application, so just using a name is not sufficient as application of knowledge.

## Question 2 (b)

Overall, few candidates were able to apply their understanding of factors affecting obedience to the context of Sarah and not following the teacher instructions to put her mobile telephone away.

Often candidates gave generic definitions as a factor, without the application. Reference to 'Sarah' is insufficient for application marks here, candidates were required to make the connections between a factor affecting obedience and Sarah's behaviour of not obeying the teacher instruction. Candidates would benefit from developing their skills of using a theory to explain a stimulus.

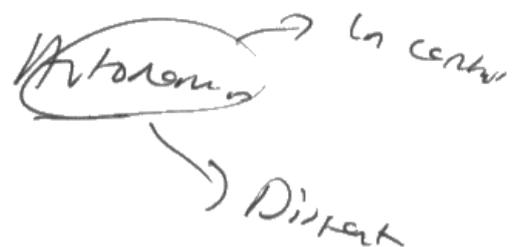
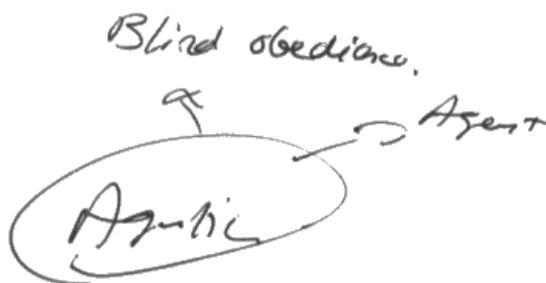
There were a number of common errors evident throughout this question, including candidates being unsure of the difference between internal and external locus of control, and also suggesting authoritarian personalities are less obedient rather than more obedient. Many candidates referred to 'individual differences' as their explanation, however they need to be more specific and specify a particular individual difference in relation to Sarah's behaviour.

(b) Using your knowledge of obedience, explain **one** factor that may account for Sarah's refusal to put her mobile telephone away. ~~5/11~~

(2)

In agency theory, someone in an autonomous state is less likely to obey. If Sarah was in the autonomous state she would accept the responsibility for having her phone out & be less likely to blindly follow the order of the teacher, so kept it out.

(Total for Question 2 = 4 marks)



**ResultsPlus**  
Examiner Comments

This candidate has accurately and clearly explained Sarah's behaviour in relation to autonomous state. They have made the connection between the features of autonomy and the actions that Sarah took in the scenario. This is a well-structured application and achieved 2 marks.

### **Question 3**

This question is an extended open response which is targeting a balance between AO1 and AO3 skills and is assessed using the level mark bands for 'evaluate'. Candidates were required to evaluate the study by Sherif et al (1954/1961) drawing on their underpinning knowledge of the study and using evaluative skills to provide a balanced evaluation, and drawing to an informed conclusion from their evaluative points.

Many candidates provided lengthy descriptions of the study at the start of their response, giving details about aims, procedure, results and conclusions - and while their knowledge was generally very good here, it was content that was subsequently not relevant to the evaluation that followed. As a direct result of lengthy descriptions, a large number of candidates often struggled to begin their evaluations until the second page, leaving reduced time and space to fully answer the question. A 'describe and evaluate' essay structure would often struggle to meet the higher levels criteria for 'logical chains of reasoning' and this has hindered a number of candidates.

On this question many candidates gave generic AO3 material, such as 'field experiments have good ecological validity' without any form of development or underpinning AO1 knowledge from Sherif et al's (1954/1961) study itself. As a result, many of the evaluations seen were under developed and could relate to any given study. The more able responses had clarity within their evaluative points, such as identifying that the study has high ecological validity as a result of being conducted in a summer camp which was a natural environment for the boys. Few candidates made balanced and informed conclusions in their responses and limited themselves to lower mark bands.

Some candidates who were able to give balanced evaluations and make conclusions about the study achieved very well, and it was pleasing to see a number of candidates were able to draw their conclusions effectively from the evaluations they had provided. Some candidates did not provide any form of conclusion, which was also evident in responses where they had good knowledge and evaluation points, yet did not draw their discussions together either throughout their response or at the end.

3 Sherif et al. (1954/1961) conducted The Robbers Cave Experiment to investigate intergroup conflict and cooperation.

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

(8)

The strengths of Robbers Cave experiment was that it was a field experiment which meant the setting was natural for the participants, and so it has high ecological validity.

As well as that, the data collection methods of the experiment such as sociometric analysis, and the findings agreed. This means that the experiment was valid.

Furthermore, another strength of the experiment was that it had practical application. This was because in stage 3 when the superordinate goals were introduced, the researchers found that the conflict between the two groups decreased. This can lead help in real-life as often conflict and hostility leads to prejudice so if conflict ~~is~~ is decreased then prejudice can be decreased. Also, another strength was that the tasks given to the boys was real-life tasks for them so it was measuring real-life behaviours and so the experiment had high task validity.

As well as that, the Tjebfel et al (1970) study can be evidence for this study as ~~Tjebfel~~ they found that the mere existence of ~~the two~~ groups lead to prejudice. This was shown in stage 1 of the Robber's Cave experiment when there was already hostility even though both groups had not even met each other.

However, a weakness of this experiment was that it is not generalisable. This is because the participants were all boys aged 14-16 and they were tested beforehand for their sporting ability. Therefore, the sample is not representative of the whole population and the findings can't be generalised.

Additionally, another weakness is that the researchers didn't gain informed consent from the boys themselves and so this meant that they would have no right to withdraw because they wouldn't be aware of it. In all this means that the experiment was not ~~even~~ carried out under all ethical guidelines.

As well as that, another weakness of the experiment was that even though it was a field experiment, it was prone to demand characteristics. This is because years later when the boys were interviewed, they said that they knew that they were being watched so findings are invalid.

In conclusion, the Robber's Cave experiment measured what it intended to and ~~can~~ be the findings can be applied to real life. However, it did have many weaknesses.



## ResultsPlus

### Examiner Comments

This candidate provided a strong level 3 response to the question.

Overall, the response demonstrates accurate knowledge and understanding in most parts. Whilst there are some inaccuracies, for example informed consent from the boys, a good understanding of the study is evident throughout the response. The evaluative skills demonstrated in this response are developed reasonably well. There are some areas where development of the evaluation was required to specifically connect the evaluation to the study itself, however the majority of evaluative points are well reasoned and specific to Sherif et al (1954/1961). There is a grasp of competing arguments shown in the response; however there is a lack of balance. The candidate concludes with a final statement, and there are a number of intermediate conclusions within the response.



## ResultsPlus

### Examiner Tip

Candidates should avoid generic statements that are not connected to the study given in the question. This response is a good example of some specific evaluative point that are developed to achieve the higher mark bands.

- 3 Sherif et al. (1954/1961) conducted The Robbers Cave Experiment to investigate intergroup conflict and cooperation.

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

(8)

The aim of the study was to investigate whether prejudice could be created between two groups of young boys, and see if this friction could then be reduced.

There were 22 participants all protestant, 11 years old, male and from Oklahoma. They did not know each other prior to the study. They were split into two groups ~~based on~~ <sup>and</sup> matched on IQ test results, teacher ratings and sporting ability. The study took place at a boys of America Scout camp and data was collected via observation, experiments, sociometric analysis and tape recordings. There were 3 stages to the study, stage 1 was ingroup formations, where the boys had a week in their separate groups to form group norms and get to know each other <sup>by</sup> taking part in common goal activities. Stage 2 was intergroup relations friction phase where the boys ~~they~~ were introduced and took part in competitive activities such as a baseball competition. Stage 3 was intergroup relations integration. The researchers wanted to achieve harmony between the boys so introduced common and superordinate goals, e.g. working together to fix the truck and pull it out of the mud.

Results in stage 1 were that groups norms were established, group leaders in place and <sup>groups</sup> names (Rattlers and Eagles).

Stage 2 results were that clear negative attitudes arose from the boys just meeting and they wanted to compete against each other.

Stage 3 results showed that the boys worked together on the superordinate goals and friction decreased, for example the rufflers chose only 6.3% of outgroup members as friends at the end of stage 2, but then chose 36.4% as friends at the end of stage 3!

~~Shenf~~ Shenf concluded that prejudice can occur from 2 different groups simply knowing another group existed, however friction (prejudice) can be reduced with the use of multiple common (superordinate) goals that get the boys to work together.

A strength of the study is that it is high in ecological validity, as it is a lab experiment and so the tasks were natural. For example playing baseball is a natural everyday task, ~~so~~ <sup>so</sup> results represent ~~the~~ everyday behaviour and have real-life mundanum.

A weakness is that the study lacks generalisability and so findings aren't generalisable to the wider population. This is because Shenf's sample consisted of only 11 year old boys for example, so therefore aren't representative of adults (eg. 20 plus) or girls.

In conclusion Shenf's study can be considered useful as we now know one way to reduce prejudice; superordinate goals, so they can be applied to situations e.g. prejudice between groups of students in a school - getting them to work together on a common goal to reduce friction.



## ResultsPlus

**Examiner Comments**

In this level 2 response, the candidate has given a detailed description of the study before reaching their evaluations on the second page of their response. Whilst some of the evaluative points can be linked back to some of the content in the description, the response does not meet the overall requirements of the higher mark bands as it has limited chains of reasoning chains of reasoning and developed evaluations.



## ResultsPlus

**Examiner Tip**

Candidates have limited their time and content with detailed descriptions. For evaluation questions such as this, candidates should focus their responses utilising their knowledge and understanding to underpin evaluation content to achieve the higher mark bands.

## Question 4 (a)

In this response most candidates were aware of the data analysis techniques that would be used to analyse questionnaires with open and closed questions. It was pleasing to see that the descriptions of thematic analysis were very good and candidates usually achieved good marks for these components. Quantitative data analysis was less well described, with some references to mean, median, mode and standard deviation but more often than not, these were simply stated in a list. Some candidates did not make the connection to their practical here, and as a result did not achieve the marks available. Candidates should be reminded that questions about practicals require them to discuss their actual practical, in this case questionnaires, and not give generic definitions or descriptions of data analysis techniques. In this case a number of definitions of central tendency and thematic analysis were seen without reference to the use of these in analysing their own practical data from questionnaires.

Common errors here included candidates describing what they did in terms of handing out questionnaires and also how they sampled their participants. In addition, a number of candidates discussed laboratory experiments, observations and interviews which are not the social practical and they therefore did not achieve the marks available.

4 In your studies of social psychology you have conducted a practical investigation.

(a) Describe how you carried out the analysis of the data you gathered.

(4)

In my practical, I gathered both quantitative and qualitative data because in the questionnaires, there were both open and closed questions. When ~~we~~ I gathered the quantitative data, we worked out the measures of central tendency (i.e. mean, median and mode) and standard deviation. I ~~also~~ put the means of both age groups into a bar graph and ~~we~~ I analysed whether the findings matched my hypothesis. However, for qualitative data, I did thematic analysis, the answers to the four different open questions were put into categories. After putting the answers into categories, I worked out themes from them and some of the themes for the age groups were; knowledgeable, experience, energy.



**ResultsPlus**  
Examiner Comments

This candidate gave a thorough and well developed description of how the data was analysed in their social practical. The response is well structured and explains both components of the practical questionnaire data analysis. This response achieved 4 marks.

4 In your studies of social psychology you have conducted a practical investigation.

(a) Describe how you carried out the analysis of the data you gathered.

(4)

From the questionnaires we collected back from our participants, we tallied how many times ~~women~~ males and females display showed a sign of obedience. After that we presented the data on to a bar chart to show the clear difference between level of obedience in gender



**ResultsPlus**

**Examiner Comments**

Whilst this candidate has described some data analysis, they have not given detail or depth in their response, therefore achieving 2 marks.

## Question 4 (b)

Some candidates answered this question well, giving a good improvement with reference to why this would improve their practical. Many candidates seemed to miss the direction to discuss their practical here, and offered generic responses describing, most often, a change in sampling method without any reasoning as to why this would improve their practical investigation. Centres should remind candidates that their practical investigation can be assessed in examinations and they should provide applied responses when discussing their own research.

A common error here was to suggest a different practical method. This was inaccurate as the question required candidates to improve their procedure, which is a questionnaire, not to change their research methodology completely. Some candidates suggested gathering qualitative data instead of just having quantitative data, these were not creditable responses as the practical investigation stipulates the need for qualitative data to be gathered in the questionnaire from the outset.

Those candidates who had spent significant time planning and evaluating their practical as a part of their learning provided the better responses here, clearly understanding the implications of their procedural choices and suggesting accurate and well understood improvements. It was clearly evident that they had engaged with the practical element of the course very well, and some centres have encouraged their candidates to undertake some very engaging practical research.

Centres are reminded to check the requirements of the practical investigations to ensure accuracy in methodology, content, analysis and ethical compliance.

(b) Suggest **one** improvement you could make to the procedure of your practical investigation.

(3)

Population validity was questionable, as we used opportunity sampling; asked boys + girls in the same school (as us) to fill in the questionnaire on perceptions of obedience. They all share some similar characteristics; same social demographic, same age, same class. So results aren't representative + can't be generalised to the target population. Next time, we should carry out the investigation on participants of all ages and in different schools, in order to obtain a more representative sample. We could do this by random sampling.



### ResultsPlus Examiner Comments

This response is a good example of an applied answer, giving a full and detailed improvement with justification for how and why this would improve the procedure of social practical investigation. This response achieved all 3 marks.



### ResultsPlus Examiner Tip

Clear application to the practical should be shown for application marks. Here the candidate very clearly discussed their questionnaire on obedience and their improvement in relation to sampling participants from only one school.

## **Question 5**

This question is an extended open response which is targeting a balance between AO1 and AO3 skills and is assessed using the level mark bands for 'assess'. Candidates were required to assess whether or not Milgram was justified in breaching ethical guidelines in his studies of obedience to authority and to reach a judgement.

This response was answered fairly well and candidates are clearly able to provide good knowledge and understanding of Milgram's work and ethical issues. However, many candidates provided lengthy descriptions of the study at the start of their response, giving unnecessary details about aims, procedure, results and conclusions - and while their knowledge was generally very good here, it was content that was not relevant to ethical considerations and whether Milgram was justified in his breach of ethical guidance. As a direct result of lengthy descriptions, a large number of candidates often struggled to begin their assessment until the second page, leaving reduced time and space to fully answer the question or give 'coherent chains of reasoning' and this has hindered a number of candidates.

On this question many candidates had limited themselves by giving an 'evaluate' response, stating strengths and weaknesses of the study based on ethical issues rather than assessing the arguments as to whether Milgram was justified in his decisions. Few candidates referred to supporting evidence in their arguments, however those that did often cited Burger (2009) very well as evidence for why Milgram was unjustified, or included arguments from Baumrind to demonstrate the significance of the points they were making, this was pleasing to see.

- 5 The British Psychological Society (BPS) code of ethics and conduct (2009) sets an expected standard for psychological research. However, it has been claimed that some studies into obedience have not met ethical guidelines. Some psychologists have argued that this breach of ethics was necessary in order to achieve accurate results.

Assess whether Milgram was justified in breaching the ethical guidelines in his original study of obedience (1963).

(8)  
Milgram was justified in breaching the ethical guidelines in his original study because without it, he would not have been able to ~~be~~ gain accurate results. This is because the participants had to believe that it was real and that they were actually electrocuting the other participant in order to see if they would stay in an autonomous state or slip into an agentic state.

Breaching the ethical guideline of ~~the~~ <sup>right</sup> to withdraw was necessary to put the participants in an agentic state as when the experimenter used the verbal prod, 'The experiment requires that you continue'. This removed their right to withdraw and put them into a situation where they were no longer free to do what they wished and in some cases, made them go up to the full voltage as an agent of the state.

However, Milgram was not justified in breaching the ethical guideline of short-term and long-term harm. Short-term and long-term harm is the effect of the experiment on the participant for either a long or short period of time. For example, having the belief that they were actually shocking another person and hearing the banging on the wall at 300v and then silence at 330v would most likely have long-term harm on the participant as despite being in an agentic state, they were still under the impression that they had injured or possibly killed someone. This would most likely continue after the debrief as they would know that when pressured, they would possibly kill someone.

In conclusion, in order to collect valid and accurate results, Milgram had to breach ethical guidelines as that was what his experiment was all about; seeing if people would ~~perform~~<sup>give</sup> fatal shocks to another human being when being put under moral strain by an authority figure.



This candidate has provided a good level 3 response, achieving 6 marks. They have been able to assess whether Milgram was justified or not in his ethical decisions, and have made accurate connections between ethical points, Milgram's study and attempted to give an assessment of the competing arguments. While there is an attempt at a balanced response, some of the points given do not quite develop the significance of the factors being discussed and as a result the response remains in level 3.

- 5 The British Psychological Society (BPS) code of ethics and conduct (2009) sets an expected standard for psychological research. However, it has been claimed that some studies into obedience have not met ethical guidelines. Some psychologists have argued that this breach of ethics was necessary in order to achieve accurate results.

Assess whether Milgram was justified in breaching the ethical guidelines in his original study of obedience (1963).

(8)

In Milgram's study, some of the ethical guidelines were broken and some were met. All participants gave consent to take part in the study however they did not give informed consent as they were ~~deceived~~ deceived about the aim of the study. Participants were told that the aim of the ~~study~~ study was to see the effect of punishment on learning whereas the true aim of the study was to see the level of obedience. Therefore even though they gave written consents, they were deceived about the aim of the study. In addition, most of the ~~unpaid~~ participants suffered from severe stress during the study therefore they were not 100% protected, however Milgram made sure the participants did not suffer from stress in the ~~far~~ future by sending the participants to a psychiatrist. The participants were also not made aware that they can be withdrawn from the study at any point and that their results can also be withdrawn. Therefore some participants may have thought that they were obliged to carry on with the study. In addition, the participants were paid to take part in the study which is unethical as again, they may have thought they were obliged to take part. In conclusion, Milgram's study broke a lot of the ethical guidelines as the place of the laboratory was ~~relocated~~ ~~not~~ even though it was meant to be confidential however all the names and addresses of the participants were kept confidential.

therefore the study can be accepted.



**ResultsPlus**

**Examiner Comments**

This candidate has good knowledge and understanding of Milgram's work and the ethical issues, however they do not fully answer the question. The candidate has given an evaluation of Milgram, rather than an assessment of whether his decisions were justified or not. They have not given competing arguments and there is only a superficial judgement in the form of a basic conclusion rather than supported or balanced judgement. They have achieved level 2 at 4 marks.



**ResultsPlus**

**Examiner Tip**

Candidates should be directed to the taxonomy used in questions and the associated skills.

## Question 6 (a)

This question required candidates to give a fully operationalised hypothesis using the stimulus material in the question. Some candidates performed very well on this question, achieving the full 3 marks available by giving a clear, accurate and well-structured hypothesis. Others were able to give an accurate hypothesis, but without fully operationalising the IV or DV, limiting their response to 1 mark. It was also evident from responses that some candidates struggled to give a hypothesis that included both components of the IV, and in these responses candidates often failed to achieve a mark.

### SECTION B: COGNITIVE PSYCHOLOGY

Answer ALL questions.

- 6 Jared decided to investigate how many household objects could be recalled by participants when rehearsal was prevented. He conducted a laboratory experiment where he displayed 25 household objects to the participants for one minute. Jared then asked the participants to count backwards from 20 before they attempted to recall as many household objects as they could. control?

- (a) State a fully operationalised directional (one-tailed) hypothesis for Jared's experiment.

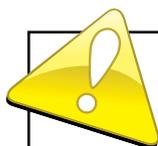
(3)

There will be significantly less household objects recalled (out of 25) by people whose rehearsal was prevented (by counting backwards from 20) compared to those whose rehearsal was not prevented.



#### ResultsPlus Examiner Comments

The candidate has given an accurate and operationalised hypothesis and achieved 3 marks. The first mark is for the directional hypothesis which included the full IV (preventing/not preventing rehearsal) and then 2 marks for the operationalisation of the DV as 25 household objects and IV as counting backwards from 20.



#### ResultsPlus Examiner Tip

Operationalising the IV and DV fully shows that candidates understand that variables in psychological research need to be specific and measurable.

## SECTION B: COGNITIVE PSYCHOLOGY

Answer ALL questions.

- 6 Jared decided to investigate how many household objects could be recalled by participants when rehearsal was prevented. He conducted a laboratory experiment where he displayed 25 household objects to the participants for one minute. Jared then asked the participants to count backwards from 20 before they attempted to recall as many household objects as they could. *interference activity*

(a) State a fully operationalised directional (one-tailed) hypothesis for Jared's experiment.

(3)

Participants will recall less household objects when there is an interference task preventing recall compared with ~~recall~~ when rehearsal is not prevented.



**ResultsPlus**  
Examiner Comments

Whilst this is an accurate directional (one-tailed) hypothesis, neither the IV nor the DV is operationalised.



**ResultsPlus**  
Examiner Tip

Candidates should always include the full IV and DV to achieve the top marks.

## Question 6 (b)

This was an AO1 and AO2 question, where candidates were required to give a participant (experimental) design for Jared's study. Many candidates achieved well on this question, with the majority of candidates giving an appropriate design and many suggesting how Jared could do this making good use of the stimulus. Some candidates failed to apply their design choice to Jared's study and gave generic descriptions of their chosen design. A common response included suggesting independent measures, with a description of each recall condition, and this was usually well expressed. Less well expressed was the choice of matched pairs design, where candidates were unsure of why this would apply to Jared's study, giving examples such as being matched on gender which were poorly connected to the memory experiment in the stimulus. Where candidates made errors, they often gave a sampling method rather than a design.

(b) Describe an appropriate participant design that Jared could use for this experiment.

(3)

Jared could use an independent groups design which is when participants only take part in one condition (A or B), not both. The first condition could be when rehearsal was not prevented so they recalled the household objects straight after studying them, with no interference. This would act as the control group, allowing for comparison. The second group of participants would then do condition B where they had to count backwards from 20 before recalling the words.



**ResultsPlus**  
Examiner Comments

This candidate achieved the full 3 marks available. They gave an appropriate design and applied this accurately to the experiment Jared conducted.

(b) Describe an appropriate participant design that Jared could use for this experiment.

(3)

Independant measures is appropriate because it allows different participants to take part in the study and means that results achieved can be compared against each other.



**ResultsPlus**  
Examiner Comments

This candidate achieved 1 mark for their knowledge and understanding of the design. There was no application to the stimulus and therefore the application marks were not achieved.



**ResultsPlus**  
Examiner Tip

Where a question indicates a candidate should utilise the stimulus by making reference to the context or signposting the candidate back to the stimulus, they should always give application points in their responses.

### Question 6 (c)

This question required candidates to calculate the mean, median and mode scores from the data provided in the question. Most candidates achieved well on this question, calculating all three scores accurately. Some candidates were unable to calculate the median score, often giving either 4 or 5 as their response, rather than 4.5. Inaccuracies in the mode score were either from reading the wrong data set, or miscounting. Candidates should be reminded that they should give the correct number of decimal places as indicated in the questions to achieve the marks, there were occasions where incorrect decimal places were given, which resulted in candidates giving inaccurate answers.

Calculate the measures of central tendency for the data Jared collected for participant recall in **Condition 1** and complete **Table 2** below with your answers.

(3)

Mean number of items recalled when rehearsal is <b>not</b> prevented (to two decimal places)	Median number of items recalled when rehearsal is <b>not</b> prevented	Mode number of items recalled when rehearsal is <b>not</b> prevented
4.58	4.5	2

Table 2



**ResultsPlus**  
Examiner Comments

This candidate scores the full 3 marks for accurate calculations of the mean, median and mode.

## **Question 7**

Candidates have performed well on this question overall. The success of candidates on this question appeared to vary with the study chosen. There appeared to be a roughly even spread with the choice of contemporary studies. Most candidates focused their responses on the procedure as required by the question, with very few giving aims, results or conclusions, which was pleasing to see.

Those candidates who had studied Sebastian and Hernandez-Gil (2012) tended to perform well, being able to give at least five, often more, procedural points about their study. However, common errors seen on this study were often a result of candidates referring to words instead of digits, being unable to give sufficient detail on the sample process and they struggled with accuracy about the rate at which digits were presented.

Candidates who provided responses about Steyvers and Hemmer (2012) often answered with sound knowledge of what the images were and how the sample was selected, however they tended to muddle or combine all phases of the study rather than explaining these distinctly. Many were overly focused on the sampling process giving several sampling points which were not creditworthy, and some struggled to describe the use of the images accurately and the measures of behaviour. The candidates achieving well here were able to specify how long images were shown, the measures for recall, and how participant responses were recorded.

Candidates who had studied Schmolck et al. (2002) often struggled the most with this question. They were able to give very detailed description of the sample of participants, but then the understanding of the tasks in the study or how behaviour was being measured was sometimes vague or inaccurate. The candidates who performed best on this study were able to give details about item categorisation, one or more of the tests administered and what was being measured and how the test data was recorded.

7 In cognitive psychology you will have learned about one of the following contemporary studies:

- ~~Scholck et al. (2002)~~
- ~~Steyvers and Hemmer (2012)~~
- **Sebastián and Hernández-Gil (2012)**

Describe the procedure used in one study from the list.

Name of study Sebastián + Hernández-Gil

Sebastian and Hernandez-Gil (2012)  aimed to investigate how digit span was affected by age. They used 570 participants from public and private schools in Madrid aged 5-17. An example was given first so they knew what they had to do. Then 3 sequences of 3 digits were read out at a rate of 1 per second. Participants had to recall the digits in the order they were read out. An additional digit increased the length with each round. Digit span was taken as the maximum length of ~~seqs~~ numbers that participants could recall 2 out of 3 sequences with no errors. They also compared their results to a study done in 2010 to investigate the effect of Alzheimer and dementia on digit span. They compared results to young and elderly controls.



**ResultsPlus**  
Examiner Comments

This candidate describes the procedure of their chosen contemporary study very well, achieving the full 5 marks.



**ResultsPlus**  
Examiner Tip

When describing a procedure, candidates should give detailed points. In this case, the candidate has given a full point about the sampling of the participants, drawing on all the key features of the sampling choice. This would achieve a mark. However, simple statements of '570 participants were used' shows a limited understanding for the sampling process in this particular study.

## Question 8 (a)

Candidates were required to explain the function of the central executive in the working memory model. Most candidates achieved well on this question, often scoring two or three marks here. It is pleasing to see that candidates were able to respond to the question direction about 'function' and so very few gave simple definitions of the central executive. Most candidates explained the functions of monitoring/controlling the actions of sub-systems, allocating/distributing tasks to the sub-systems, and controlling attention. Some candidates were able to accurately include the function of problem solving and processing of information in any modality. The common errors were often seen where candidates defined points about the central executive, rather than explaining functions, for example 'it has limited capacity' or 'it is the boss of other systems'. Overall, this question was generally well answered and showed good understanding by the candidates of this model of memory.

- 8 Baddeley and Hitch (1974) claimed that memory was composed of separate systems that each have a function in processing and storing cognitive information. They refer to this as the working memory model.

(a) Explain the function of the 'central executive' in this model.

(3)

Central Executive control and co-ordinate the two slave system ie, phonological loop and visuo spatial sketchpad. It is responsible for focusing or dividing attention on particular task. It supervises the two slave systems. Central executive is also responsible for carrying out mental tasks such as arithmetic problems.



**ResultsPlus**

**Examiner Comments**

This candidate has explained the function of the central executive very well, achieving the full 3 marks available.

## Question 8 (b)

Candidate responses to strengths and weaknesses of theory were mixed. Many candidates were able to give a basic point for their strength or weakness, however this was not always explained. Exemplification or justification is required for the AO3 mark. Those candidates who performed best were often able to support their weakness well, and evidence from Liebermann was used to achieve this. The support or justification for the strengths was less well presented, with some muddled and inaccurate responses being given here. Those who used case study evidence to support the notion of distinct stores were able to achieve well in justifying their strength.

Centres should encourage candidates to always support their basic AO1 point with development and exemplification in this style of question for an AO3 mark, and in this question this skill was best seen when supporting evidence was used.

(b) Explain **one** strength and **one** weakness of the working memory model.

(4)

Strength

One strength is the supporting evidence. KF damaged his short term memory in a motorcycle accident but only his recall of spoken/written information was impaired, recall of visual information remained intact. Therefore, this shows there are 2 separate stores in short term memory, the phonological loop and the visuospatial sketchpad.

One weakness is that the ~~stap~~ research supporting this model is low in ecological validity. Baddeley used meaningless words within his research which may not be true to how people recall everyday information that has meaning to them. Therefore, the working memory may not be fully representative of how memory works in real life situations.



**ResultsPlus**  
Examiner Comments

This candidate has achieved 4 marks. The strength that there is supporting evidence for distinct stores in working memory, has been justified with reference to the case study of KF. Equally, their weakness that working memory may not represent realistic, everyday use of memory and thus it may be inaccurate, has been supported by using experimental evidence of tasks that lack mundane realism.



**ResultsPlus**  
Examiner Tip

Candidates should ensure that their evidence or justification is clearly linked to their point.

## **Question 8 (c)**

This question is an extended open response which is assessed using the level mark bands. Candidates were required to evaluate the study by Baddeley (1966b) drawing on their underpinning knowledge of the study and using evaluative skills to provide a balanced evaluation, and drawing to an informed conclusion from their evaluative points. Conclusions were rarely seen, either throughout or at the end of the responses, and this has limited candidates to lower levels in the mark bands. Those candidates who were able to give balanced evaluations and make conclusions about the study achieved very well, and it was pleasing to see a number of candidates able to draw their conclusions effectively from the evaluations they had provided.

Many candidates provided lengthy descriptions of the study at the start of their response, giving details about aims, procedure, results and conclusions which were often not relevant to the evaluative point being made. As a result of lengthy generic descriptions, a large number of candidates often struggled to begin their evaluations until the second page, leaving reduced time and space to fully answer the question. A response that does not provide evaluative (AO3) points that are connected to or underpinned by accurate knowledge and understanding (AO1) is likely to struggle to meet the higher levels criteria for 'logical chains of reasoning' and this has hindered a number of candidates.

Many candidates appeared to struggle with the evaluations of this particular study which appeared to be as a result of not fully understanding what Baddeley was testing. Most evaluations that were given often centred on sample size, mundane realism and the experimental method, these were generally accurate evaluations and demonstrated good understanding of the experimental method, but some were generic and not linked to AO1 knowledge and understanding of study itself. Those candidates that achieved well, were able to coherently connect their knowledge point to evaluative point, for example developing the concept that the task of word lists decreased task validity, however many did not provide this connection. A number of inaccuracies were seen in the knowledge of the study, and this resulted in limited development in the evaluative points, as the evaluations were based on inaccurate understandings. Where candidates achieved well, they often were able to make accurate procedural statements with logical reasoning as to why this would strengthen or weaken the study, such as having word lists visible in the room in order to increase the accuracy of testing order of recall rather than memory of words.

Candidates are only required to know one of the studies conducted by Baddeley (1966b) and some candidates had learned all three and muddled these.

(c) Baddeley (1966b) conducted a laboratory experiment to investigate the influence of acoustic and semantic similarity of words on long-term memory.

Evaluate Baddeley's (1966b) study.

(8)

Baddeley 1966 study was related to word call.

The aim was to see if acoustically similar / dissimilar words had effect on recall or well as semantically dissimilar / similar words upon memory recall.

The procedure was split up into 4 stages and each participant was tested individually. There were 23 males and 13 females.

They were shown acoustically similar words, which are words that sound the same ~~and~~ at a rate of 1 word every 3 seconds were they heard to observe this for 15 minutes.

They then had an interference task which was aimed to change what they remembered. After less 30 minutes later they had to recall the words observed.

This process was then repeated for acoustically dissimilar words, which is words you that don't sound the same. The interference task occurred after recall.

For semantically similar words, words that look the same the same process occurred and the interference task. This again for semantically



**ResultsPlus**

**Examiner Comments**

This candidate achieved level 1, 2 marks. They have provided a detailed, although inaccurate in parts, description of the study and did not begin the evaluation until the middle of page two, where they give limited evaluations that were generic to the laboratory method and inaccurate at times. There was little knowledge from the description of the study that could be connected to the evaluation points given by this candidate.



**ResultsPlus**

**Examiner Tip**

Candidates should give evaluation points that are underpinned by knowledge and understanding (AO1) and make and make logical connections to knowledge points from the study throughout their evaluations.

## **Question 9**

This question required candidates to evaluate the use of quantitative and qualitative data in the context of Ed and Najeeb given in the stimulus. This, as the final question, is a question that draws upon content from both social and cognitive psychology, and in this question it was the methodological issues from the two topics that were used. This question required candidates to provide an evaluation of the data types in relation to the scenario, however this application skill was often limited in responses and as a result had limited candidates reaching the higher mark bands. Those candidates who achieved well here were able to demonstrate their ability to evaluate the types of data in relation to student wellbeing, tutorials, and even the likelihood of the sample (students) engaging with the methods suggested. This was pleasing to see, and these candidates have clearly given well considered responses to the question. Candidates achieving less well had given responses where the data types were evaluated without consideration of the stimulus given in the question. Some candidates gave descriptions of quantitative and qualitative data and descriptions of laboratory experiments and questionnaires which demonstrated some knowledge and understanding, however they were often unconnected to the stimulus of the reasoning developed in evaluations.

Levels of application to the stimulus varied in responses, with some candidates simply using the names Ed and Najeeb as application, these responses tended not to score highly. Application responses should focus on the whole stimulus and focus on the behaviour or issue given, rather than the name of the person in the context. The most able candidates made excellent connections between their underpinning knowledge of the data type, how it benefits or hinders psychological research and developed this through further reasoning to evaluate the usefulness of the data to the context.

Evaluations were sometimes generic in the responses to this question, statements such as 'qualitative data is subjective' were sometimes seen without exemplification as to why this may be the case, or why this is either a strength or weakness. Some candidates gave supporting evidence in their justifications for evaluation points, this was pleasing to see and where evidence was used it was very well expressed and coherently connected to the data type or the use of laboratory methods or questionnaires in research.

## SECTION C

- 9 Ed and Najeeb are researching the effects of individual tutorials on student wellbeing. Ed wants to carry out a laboratory experiment and collect quantitative data, whereas Najeeb feels they should use interviews to collect qualitative data.

Evaluate the use of quantitative and qualitative data when conducting research into psychological issues. You must make reference to the context in your answer.

(12)

Quantitative data is numerical data, how much of something there is, whereas Qualitative data you have to interpret, its more descriptive.

Quantitative data is easier to analyse & examine, it can be used in closed questions in a questionnaire, or even in structured interviews. It is quicker to analyse. However, sometimes participants can feel like they can't fully express what they want to express. They are limited in their answers & this can be frustrating to the participant. This can be reduced slightly however with the use of a likert scale, which still is quantitative data, but participants are able to express themselves more. Qualitative data is much harder to interpret, it takes much longer to analyse. It can be used in questionnaires, but usually is used in semi-structured or unstructured interviews. It gives the participant much more freedom in their answers to fully express themselves. When dealing with issues though, both types can be difficult as the participant will want to be seen in a

socially desirable light, so this must be safeguarded & reduced. To understand student well being I feel an interview collecting qualitative would be better as it would be less formal & the students would feel more at ease to express themselves & tell the truth. In a lab experiment, you will be limited on the results you get, & they may display demand characteristics & not feel okay to express what they want to



**ResultsPlus**  
Examiner Comments

This candidate achieved level 2, 4 marks. They have given evaluations and connected these to knowledge of quantitative and qualitative data types and gathering such data, however their application to the stimulus is limited, resulting in the candidate not fully meeting the levels based mark band criteria for more than level 2. Due to the limited connection to the stimulus, they were awarded the lower end of this mark band.

## SECTION C

- 9 Ed and Najeeb are researching the effects of individual tutorials on student wellbeing. Ed wants to carry out a laboratory experiment and collect quantitative data, whereas Najeeb feels they should use interviews to collect qualitative data.

Evaluate the use of quantitative and qualitative data when conducting research into psychological issues. You must make reference to the context in your answer.

(12)

Quantitative data is normally gathered in controlled experiments and so it can be replicated as it is a standardised procedure.

Therefore, it can be tested for reliability and a lot more data can be gathered which enables us to make comparisons. This is beneficial when researching psychological issues as you can get a wider sample. As well as that, questionnaires can be one way to collect quantitative data and it can be sent through the post so it is cheaper and more convenient. Quantitative data enables us to look at data statistically and this can be good to find cause-and-effect conclusions on whether individual tutorials affects student wellbeing.

However, the problems with gathering quantitative data for this psychological issue is that if for example a questionnaire is used then we don't know if the participants are harmed by the topic or some of the questions. Additionally, laboratory experiments are an unnatural setting for the participants and so it is prone to demand characteristics, they may well answer what they think we will like to hear. Also, there is usually social desirability bias as participants may not reveal their true feelings. Also, quantitative data is usually not valid and can be too simplistic when analysing psychological issues.

On the other hand, qualitative is usually detailed and descriptive and allows us to gather in depth detail about the individual. This can be really helpful when finding out whether there is an effect of individual tutorials on student wellbeing. This is because when interviewing the participants, we can allow them to expand on their answers and the findings will be more valid than gathering quantitative data. As well as that, in interviews, the interviewer can check whether the participant is upset by the questions and we can make sure that they don't come to any psychological harm. Therefore, gathering qualitative data can be good for this issue because you will get more information than quantitative as it has limited answers.

Despite that, qualitative data is very difficult to analyse and takes a lot of time & is very ~~difficult~~ hard to gather. During an interview, the participants can also change their answers depending on the tone of voice or facial expressions of the interviewer so it is still prone to demand characteristics. In addition, qualitative data can't be generalised because the answer has come from an individual and there are individual differences. Therefore, this means that what result there is for <sup>one</sup> person is not for another and so you won't get an accurate answer to if there is an effect of individual tutorials on student wellbeing.

In conclusion, I think that both data methods are good in ~~gathering~~ gathering answers to the effect of ~~an~~ individual tutorials on students wellbeing. And, quantitative & qualitative <sup>both</sup> can be used and you can get a general answer from these, they both have their own strengths & weaknesses.



**ResultsPlus**  
**Examiner Comments**

This candidate achieved level 4, 10 marks. The responses is well balanced with clear and coherent reasoning as to the use of quantitative and qualitative data in regards to the scenario and the methods associated with gathering these types of data, again linked to the scenario. They have applied their knowledge and understanding to the stimulus throughout their response and developed their argument around whether the data is best for this particular context. The candidate could have given more application to the scenario, hence the low level 4 mark awarded.

## Paper Summary

Based on performance on this paper, candidates are offered the following advice:

- Where an extended open response question (8 marks or more) is used, candidates should draw upon their knowledge and understanding to support logical chains of reasoning in order to achieve higher mark bands.
- Candidates should give balanced responses with informed conclusions or judgements (where appropriate to the taxonomy used) in their extended open responses.
- Candidates should apply their understanding to the behaviour or context in a given scenario, not just give a name.
- Evaluation points, strengths and weaknesses should be specific not generic (particularly in evaluations of studies).
- Explanations should be exemplified, not just described.
- Use of supporting evidence for evaluations, strengths and weaknesses would aid candidates in exemplifying their points.
- It should be made clear in responses about candidate practicals exactly what the practical was that they completed.
- The IV in a hypothesis requires both conditions, and the IV and DV should always be fully operationalised.

## **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>

Ofqual  
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