

Examiners' Report/ Principal Examiner Feedback

October 2016

Pearson Edexcel International GCE PSYCHOLOGY (WPS02) PAPER 2: Biological Psychology, Learning Theories and Development

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General Comments

This is the second sitting for this unit, and it was good to see candidates engaging with the questions, and providing a lot of psychological knowledge in their answers. There were very few blank pages, and candidates seemed to be able to manage their time well and attempt all the questions including the three essays at the end.

To improve their answers candidates need to be able to justify their answers when it comes to explain questions, as many could gain the identification mark but then failed to offer any explanation. There was also an issue with generic points, especially when it came to strengths or weaknesses of studies, and these need to be linked to specifics from the study being written about.

However, most candidates were able to link answers to scenarios when they were given, including in the essays. It would help candidates to know what the different command verbs expected in the form of an answer, especially those used in essays, as a lot of candidates were limited in what marks they could gain due to lack of conclusion or judgements where they were needed.

Paper Summary

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

- When asked to identify something candidates do not need to explain their answer.
- When questions ask candidates to explain candidates need to offer some justification for their answer.
- Focus on what the question is asking and make sure the answer is relevant to that question.
- Know the skills involved for the command words that may be used for essays rather than just describing and evaluation.
- Include conclusions or judgement within essays in order to gain the higher levels.

A more detailed analysis of individual questions and answers follows.

Comments on Individual Questions:

Q01a

Question Introduction

Some candidates were able to correctly define what was meant by a correlation. However a majority of candidates failed to gain the mark as they wrote about cause and effect, or the independent and dependent variable. Other candidates wrote that it was a correlation without explaining what was meant by the term correlation.

Examiner Comment

(a) The researchers used the correlational research method.	
Define what is meant by the correlational research method.	
(1)	
Correlational research method is where the researcher	
can establish a relationship between two variables:	
This gains 1 mark for accurately defineg what is meant by the correlatio research method, clearly stating that it is a relationahip between trailers.	
(a) The researchers used the correlational research method.	
Define what is meant by the correlational research method.	
(1)	
leasearch is carried out investigate how one variable	
This gains 0 marks as the candidate writes about cause and effect so is	

Examiner Tip

When asked to define do not use the same term in the definition without an explanation of what it means.

defining an experiment rather than a correlation.

Q01b

Question Introduction

Most candidates were able to identify a of the correlation research method and gained the identification marks. However very few candidates were able to elaborate on the strength to gain the justification mark. The most common strengths that were identified were that it can be done when it is impractical to carry out an experiment, or that it is easy to display graphically.

Q01c

Question Introduction

Most candidates gained 2 or 3 marks for the graph, they were able to give an appropriate title, correctly label the axes and correctly plot the data. Those candidate who did drop a mark often did so because the title was not appropriate or detailed enough, for example they wrote 'performance of textile workers on night shift' when the graph was about the number of nights worked and the number of mistakes made. All the candidates who attempted the question drew the correct type of graph, a scatter diagram.

Q01d

Question Introduction

Most candidates were able to accurately identify that the type of correlation they had drawn was a positive correlation. The majority of candidates were able to gain the second mark by describing why it was a positive correlation. Only a small minority of candidates failed to get the second mark, and this was because they either wrote about cause and effect or did not describe why it was a positive correlation using the information from the scenario.

Examiner Comment

(d) Describe the type of correlation shown in the scatter diagram you have drawn.

(2)

The more the consecutive nights they worked, the more they made mistained the you can see by the scatter diagram, there is a faithve correlation.

This gains 2 marks.

The first mark is for stating it was a positive correlation at the end of the sentence and the second mark was for describing the fact that as the number of consecutive nights increased then so did the number of mistakes made.

Examiner Tip

If the question is worth two marks then the candidates need to add to their answer to gain the second mark using the information from the scenario if there is one with the question.

Q01e

Question Introduction

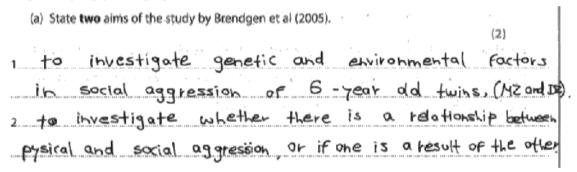
Most candidates were able to correctly identify Spearman's Rank test as the correct statistical test to use.

Q02a

Question Introduction

Most candidates correctly wrote about Brendgen et al. (2005) and focussed on the aims rather than any other part of the study. However in a lot a cases the aims were not specific enough to gain credit, for example writing about aggression rather than stating the type of aggression they were writing the aim for. Other candidates wrote an aim about the cause of aggression, again this is not enough detail as the candidates need to state what causes Brendgen et al. were specifically studying.

Examiner Comment



This gained 2 marks.

This answer gained 1 mark for the first aim, which clearly states that Brendgen et al. were investigating genetic and environmental factors as well as clearly stating the type of aggression that was being studied.

Examiner Comment

(a) State two aims of the study by Brendgen et al (2005).

1 To sind out whether social aggression is caused by genes or the environment.

2 To find out is social aggression and physical aggression share the same cause.

This gained 1 mark.

It gained one mark for the first aim which clearly states that Brendgen et al. studied social aggression and also identifies that they aimed to see whether it was caused by genes or the environment. The second ail does not gain any credit, whilst it correctly identifies the two types of aggression it just says to see if they share the same cause, rather than state what the causes would be.

Examiner Tip

Candidates are expected to have a thorough knowledge of their studies in detail, so when writing answers about the studies in detail the candidates need to be as specific as possible and add details from the study.

Q02b

Question Introduction

Most candidates attempted this question, and some could accurately state a conclusion from Brendgen et al (2005). Some candidates failed to gain the mark for the conclusion because they were not accurate enough, or they mixed up the conclusion for the physical aggression and social aggression.

Q02c

Question Introduction

Most candidates were able to identify at least one strength, with most being able to identify two strengths. Again only the better candidates were able to go on and justify why the strength was a strength, and therfore gain more than the two identification marks. Some candidates just wrote evaluative terms as part of their justification but did not use them to explain the strength. Other candidates gave generic strengths that could have been true of a range of studies, rather than link their strength to specifics from Brendgen et al.s study, therefore they could not gain credit for their answers.

Examiners Comment

(c) Explain two strengths of the study by Brendgen et al (2005).
(4)
Brendigen et al. had a sample of 234 M2 and and big Dz twins which is a strong, sample which therefore
DZ twins which is a strong, somple, which thereto
nears that the longe sample was a represent
sample.
2 Here was full control of extranspous variables
and standardized procedures were used, which mea
that the study has strong reliability, making it
highly replicable. This also means that when
replicated the test should yield similar results
as the original study.

This gained 2 marks.

This candidate gained two marks for the first strength, as it clearly identifies a strength as the size of the sample and states what the sample size was. The candidate then goes on to explain why a large sample size is a strength in terms or it being representative.

The second strength does not gain any marks as it is a generic strength about standardised procedures which could be relevant to a number of studies. There is nothing specific about what was standardised in Brendgen et al.s study.

Examiner Tip

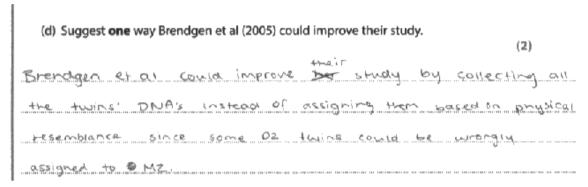
When asked to explain strengths or weaknesses of a study make sure that there is some specific detail about the study in the answer.

Q02d

Question Introduction

The better candidates were able to gain both marks for suggesting an improvement to Brendgen et al. (2005) and then saying why this would be an improvement. Some candidates only gained one mark as they were able to suggest a realistic improvement but then did not go on to write about why this would be an improvement for the second mark. Some candidates did not give a realistic improvement so did not gain any marks, for example they wrote about increasing the sample size, when Brendgen et al. used a sample of 234 pairs of twins, which is considered a large sample.

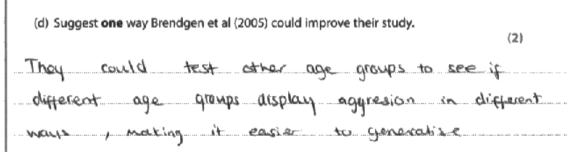
Examiner Comment



This gained 2 marks.

This gained 1 mark for accurately identifying that one improvement would be to collect all the twins' DNA and the second mark was gained for saying how this would be an improvement as in the study some twins may have been incorrectly labelled as MZ.

Examiner Comment



This gained 1 mark.

The candidate gained a mark for accurately stating an improvement would be to investigate other age groups, but does not gain the second mark for saying it would be easier to generalise as this need some explanation about why it would be easier to generalise, or why being easier to generalise would be an improvement.

Examiner Tip

If using terms such as generalisability then give some explanation of the term in relation to the question.

Q03a

Question Introduction

Some candidates gained both marks for giving a hypothesis that was from the biological practical that had one variable operationalised. However some candidates failed to gain the marks as they hypothesis they wrote was for an experiment, when the biological practical should have been a correlation

Examiner Comment

 (a) State the fully operationalised hypothesis from your biological practical investigation. 	
n year gamen	(2)
We hypothesised that young children	in
primary school who play more hours on	
games will perform worse in school and	will
be sleep deprived to a certain extent.	

This gained 2 marks.

This hypothesis is clearly for a correlation and is related to the specification as it is investigating sleep. One variable has been operationalised as the candidate writes about hours on video games, though how the candidate measured performance at school is not operationalised.

Examiner Comment

 (a) State the fully operationalised hypothesis from your biological practical investigation. 	
	(2)
I wanted to find out if gender affected the ability	of someone
to play videogames. My initial hypothesis was ge	nder will
assect the ability to play videogenes. The	noll hypothesis
was: gender will not assect the ability to play	videogames.

This candidate gained 0 marks.

The hypothesis is looking at how gender will affect the ability of someone to play video games, and is an experimental hypothesis rather than a hypothesis for a correlation, therefore cannot gain credit for the biological practical.

Q03b

Question Introduction

Very few candidates were able to gain the two marks for this question. Some were able to identify an ethical issue that was taken into consideration, but were unable to explain how or why they had to take the ethical issue into consideration so did not gain the second mark. A lot of candidates did not gain any marks for this question, either because it was not an ethical issue or because the answer referred to an experiment rather than a correlation.

Q03c

Question Introduction

Very few candidates gained more than two marks for describing how they gather the quantitative data for their biological practical. Those candidates who did gain more than 3 marks did so because they added detail to their answers and made their point specific to their biological practical. The majority of candidates who did write about the biological practical failed to gain marks as they made generic points about gathering quantitative data that could have been about any study, with no reference to how they personally gathered it for their practical. Some candidates wrote about how they gathered quantitative data for an experiment, and some went on to describe how they gathered qualitative data.

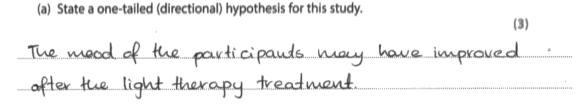
Q04

Question Introduction

Very few candidates managed to get above a level 2 score for this essay about neurotransmitters, with a large minority of the candidates only gaining level 1. This was for a variety of reasons, including having very little evaluation within the essay with it mainly being description. Candidates need to ensure there is evaluation in questions that ask them to evaluate. Other candidates failed to gain very many marks because they lost focus on the essay, and went on to write an essay about theories of aggression rather than the role of neurotransmitters in human behaviour.

Very few candidates included a conclusion in their essay.

Examiner Comment



This gains 1 mark as neither the dependant variable of the mood has been operationalised, nor has the independent variable of the light therapy been

operationalised. it gains 1 mark for being a directional hypothesis, through the term improved.

Examiner Comment

4 Evaluate whether the role of neurotransmitters can fully explain human behaviour.

(80)

Remonianismitiers lend to influence behaviour on a large trail. Helio happenintees such as Departine can be held impossible for the pleasure freday and propriematic behaviours auch as addition, whereas new attended them as specific can be held responsible to mood and altitude to the instrumenting offers the figure I fleght behaviour. It could be shared insot approximate militers organious for curain behavious on it affects busin functionaling. Memorians on this such as channel nettern epicepty as is at act as an inhibitor and prevent The Biney of memory and the non-mission of messages between cells. Bowley the role of other biological forbits which as homograps and genes are played huge me in beneficial thomsomer such as phylosin, released by the pinetury What incremes this between humans the later in the pieces grand induces steep and the hygotralamus penduces destantione and again which affects againstive Though the a neuromansmitters do affect hehaviour other flushes such as holological hascent to leave a greater voice, the manager especially in long-term behaviour as homograps are transported through the blood which is a much. slower process than newspoorumits by "He popular Even mough agreement by missing of newsonian continues many to be experience explanation expectedly mough. the muces of antiexitating post synaphic perential processing the inhibitioning pay-supapite patencial it remot be generalized to all human behaviour such . the apprecion office offices that on the pre-frontist contex is seen to be responsible in aggression. This is seen in the coure of the Phineas Sugar who suffered a however accudent which damaged the presonal correctores In addition to the this the role of genetic Packers is at extreme importance. In the was of the Button famility with a history of a alkanine and agreems mare

member, it may seen that aggress inner near date to generic themse such genetic factors sould also include the mannings which was initially referred to as the location of the continuous. Those with two levels of the continuous when put in high possible trimulations when wholey aggressive discussions or makes are seen to be much more aggressive from those with a tow-make are constituted than those with the trius of the continuous times are conditions the Challest such as these chows a me integration between both native and nature. However, this is important since researches have concluded their himon behavious factors in the should be cittibuled to both neither and nature. There is never transmitters as an explaination of behaviour is reductionist as it only focuses on he remaindant of perfect and detains into he as it is included forthers which are not as an explaination for our number of neurotramities. At a whele as an explaination of number of neurotramities.

This gained 6 marks, level 3.

The AO1 shows accurate knowledge and understanding, it is mainly at the start of the essay but is also integrated in the AO3 such as the point about Phineas Gage.

The AO3 demonstrates a grasp of competing arguments, and those arguments are mostly in coherent chains of reasoning. There is also a conclusion at the end of the essay when the candidate writes about the explanation being reductionist. However the AO3 is imbalanced, as is the conclusion therefore it cannot be a level 4 answer.

Examiner Tip

When writing essay make sure there is a balance of strengths and weaknesses in the AO3, and that any conclusion of judgement is also balanced.

Q05a

Question Introduction

Candidates just had to name the correct stage which most candidates were able to do. Some candidates identified the incorrect stage and some identified part of the theory of mind or the theory of personality.

Q05b

Question Introduction

Very few candidates gained both marks for explaining why Stuart was afraid. Good candidates were able to use the Oedipus complex to explain how Stuart felt about his mother and link this to castration fear and being afraid to go fishing. Some candidates just put the Oedipus complex without any explanation which could not gain credit as the question asked them to explain. Weaker candidates made no reference to Freud's theory in their answer, for example saying that he was afraid the father would take him away from his mother but not saying why.

Examiner Comment

(b) Explain, using Freudian theory, why Stuart became afraid.

(2)

The Freudian theory is an explanation used in the psychodynamic approach would've

Studies to the theory, Shart, became afraid because his father found out that he had feelings for his mother the was advaid that he would be punished by being assimiled by his father.

This gained 2 marks.

It gained 1 mark for correctly stating that Stuart was afraid that his father may have found out about his feelings for his mother, and the second mark for explaining that he was afraid he would be punished by castration.

Examiner Comment

(b) Explain, using Freudian theory, why Stuart became afraid.	(2)
The phallic stage explains that a be	sy mangor
the oppositions complex and has love a	~
for the mother and sees the tather as	the enny
Thus explains stunt's fear for his fath	

This gained 1 mark.

This gained the mark at the end of the answer for describing the Oedipus complex and relation to the mother and father and then adding that his explains Stuart's fear in the last sentence. If there had been no reference to Stuart then this would have not gained any credit as it would not have been linked to the scenario.

Examiner Tip

If there is a scenario as part of the question make sure that information from the scenario is used in the answer.

Q06a

Question Introduction

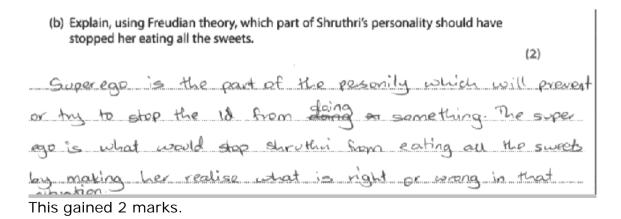
Most candidates were able to correctly identify that the id was responsible for Shruthri eating the sweets, and the best candidates were able to gain the second mark by explaining why. However many candidates did not gain the second mark, with some answers being muddled. Some candidates wrote about a stage rather than an aspect of Shuthri's personality.

Q06b

Question Introduction

A majority of candidates were able to say which part of Shuthri's personality should have stopped her eating the sweets, but very few went on to elaborate and explain why so most failed to gain the second mark. Some candidates gained the first mark but then showed some confusion about part of the personality according to Freud as they went on to explain a different aspect of the personality. Most candidates did link their answer to the scenario.

Examiner Comment



It gained the first mark for correctly stating the superego and linking it to stopping Shuthri eating all the sweets. The second mark was gained for the justification of it making her realise right from wrong.

Q06c

Question Introduction

Many candidates gained one mark for identifying a weakness, but few managed to gain the second mark for justifying the weakness as part of the explanation. Common answers referred to the fact it only studied children, it being difficult to prove or the subjectivity of Freud's data. Common mistakes included saying that it only looked at nature or that it was only tested on one child, when it was also tested on Freud's adult patients. Candidates need to be careful about the statements they make, and check them, for accuracy.

Q07a

Question Introduction

Most candidates were able to correctly work out the mean and the median.

Q07b

Question Introduction

This question was not answered well. The question asked about the observational research method, and some candidates did not focus on the observational research method but focussed on other aspects of the study such as the sample size. Most candidates did attempt to link their answer to Angela's study but a few gave generic answers with no reference to Angela's observation. Candidates who did score a mark for identifying a strength or weakness often failed to gain the second mark for justifying why it, which is required of explain questions.

Q07c

Question Introduction

Those candidates who knew about statistical test were able to gain both marks, either by stating the factors that led to a chi-squared test being used or by referring to how it could be used to accept or reject her hypothesis. A large minority of candidates did not answer this question correctly, either saying it was easier to work out or just saying it can be used to compare the results.

Examiner Comment

(c) Angela used a chi-squared test to analyse the data from her study. Justify the use of a chi-squared test for this data.

(2)

IF Angelas obtained value is equal or more than the critical value, he results can be significant so that she can approver her alternative hypothesis in reject the null hypothesis according to ohi-squared test

This gained 2 marks.

It gained the first mark for mentioning the obtained and critical values and the results being significant. The second mark was gained for the elaboration of this about how it could be used to approve her alternative hypothesis.

Examiner Comment

(c) Angela used a chi-squared test to analyse the data from her study.
Justify the use of a chi-squared test for this data.

(2)

Since, it deals with norminal data, sig testing for a difference and the use of independent groups [hi-squared would be suitable

This gained 2 marks.

This gained both marks for justifying the use of the chi-squared test in terms of the data used and the fact they were testing for a difference.

Examiner Tip

Candidates need to be able to explain why statistical tests are used as well as be able to follow the formulae at the front of the exam to work them out.

Q08a

Question Introduction

Candidates did not do well on this question, they were unable to define spontaneous recovery. Some candidates thought it occurred when the unconditioned and conditioned stimulus were paired together again, and others just defined the words with no reference to classical conditioning saying it was a quick recovery.

008b

Question Introduction

This question was not answered well by a majority of candidates, they were unable to define extinction in relation to classical conditioning.

Q08c

Question Introduction

Stimulus generalisation was defined better than the previous two questions, with some candidates being able to accurately define it in relation to classical conditioning. Some candidates even gave an example using studies into classical conditioning, which was not needed as this was a one mark question but was good to see.

D800

Question Introduction

Candidates did not answer this question well, with very few being able to identify a strength. Candidates often said it was a strength because and then went on to define one of the terms asked about in the previous three questions. Candidates need to be aware that describing part of a theory does not become a strength by putting 'It is a strength because it says...' Some candidates could identify a strength as having scientific evidence to support it in the form of Pavlov's studies but then failed to add any justification for the second mark.

Q08e

Question Introduction

Some candidates were able to answer this question well, engaging with the scenario and describing how classical conditioning could be used to teach a dog to sit. A lot of candidates confused classical conditioning with operant conditioning and wrote about giving the dog treats when it sat, or writing about reinforcement. Though some candidates did manage to gain a mark by referring to the conditioned stimulus and conditioned response in relation to the scenario, even though they had written about operant conditioning in the previous sentence.

Q09

Question Introduction

The majority of candidates gained a level 1 or level 2 score for evaluating the study. Common mistakes included giving generic evaluative comments

that could be applied to several studies with nothing specific to the study in question or using evaluative terms without explaining them. E.g. saying the study was had a small sample size with the correct figure and then saying it was not generalisable but not explaining why not. Candidates also often failed to include a conclusion, or where one was included it tended to be superficial so this also limited the level that the candidate could get for their answer.

Q10

Question Introduction

This essay provided a range of answers, but again the majority of candidates gained the lower levels. Good candidates were able to offer AO1 and AO3 points about internal pacemakers and external zeitgebers and they offered a range of evaluative points for both with some grasp of competing arguments. Weaker candidates tended to offer just one of two points in evaluation of each explanation, with a minority not offering any AO3.

The marks for good candidates were sometimes limited as there was a lack of judgement. Where there was a judgment this tended to be superficial or imbalanced so limiting the level the candidates could achieve.

SECTION C

Answer ALL questions in this section. Write your answers in the spaces provided.

10 Evaluate the role of internal pacemakers (body clock) and external zeitgebers in the regulation of the sleep-wake cycle.	
(12)	
Internal paremakers are the our bisinging clocks of for	
the sleep-wake cycle and external relitgeners are the	
external slimus that here our internal pursurable to	
work - Such as light. In order for our street water syches	
to work correctly, we need both internal paremoters and	
external softgeners, light enters to our revina into our	
suprochiasmatic nucleus (SCN) and from the opine nerve,	
and that produces the properties of cortison	
and malutonn	
Decoursey (1998) now shown that the SCN aids to	
successful, the 30 chipmunes had their SCN's removed and	
then proced boack in which natural hobitat. 30 days late	<u></u>
significantly mad channels had been also to not having	
their SCN's in place. This suggests the idea of our	
brownical rhythms. Atthough , the finding's Cannos be	
querelised exto humans, carrying exceptioners like this	
The humans would be unethiced Also it might	
have caused unacessary pain to enigments.	
Michael Siffre conducted a case study on himself since	
he stayed in a care and found that his body close was	

irregular but then storped at 25-30 hours thomeser,
since it was a case study on wesone person the findings
-const. ht. generalized: * ** Also, Michael
Siffre 13 findings were beto bigs and conter be generalise
onto femaves
Another criticism was that Siffie's use of artificial lights
could have differed his results. Miles et all reported a
study on a blind man who had a bedy clock of about
24.9 hours, doep) to the inability to sense external extraobers.
\$ However, the blind man could shine light on the back
at his knee.
An important view that was made uses people's leady
clocks and be influenced by social (was. This was
found because people was used in the Artic Circle could
Still manage to get 7 hours of sieep despite the dead dark
environment. When a person identifies it is day time
or night time wring a core , that could be enough
to influence their internal pacematers. This contradicts
the fact that light is the main draw only source of
external zeitysours.
Internal bacamaters and expernal restgences have
becomed they support and have
shown that they work incredibly together in order
to maintain a bedy clock and possibly aid
Sacrifical

This gained level 3, 8 marks.

The A01 and A03 are at a level 3, the knowledge and understanding are accurate in relation to both internal pacemakers and external zeitgebers.

A03 is at level 3, there are mostly coherent chains of reasoning and it leads to a reasoned conclusion being presented. The candidates is aware of competing arguments though there is an imbalance in the evaluation.

Q11

Question Introduction

Very few candidates got above a level 2 for this essay. Some candidates did not offer a judgement about which would be the best research method to use in this case, assess questions require candidates to make a judgement. Most candidates did use the scenario in their answer, however some produced a plan of how they would carry out the observation rather than asses which method would be best. These candidates often wrote very little about PET scans. Other candidates failed to offer any AO3 points, or offered limited AO3 points.