

PEARSON EDEXCEL INTERNATIONAL ADVANCED LEVEL PSYCHOLOGY

UNIT 2 - WPS02

Biological psychology, learning theories and development

EXEMPLARS WITH EXAMINER COMMENTARIES

Introduction

Section A: Biological psychology, totals 34 marks and comprises short-answer questions and one eight-mark extended open-response question.

Section B: Learning theories and development, totals 34 marks and comprises short-answer questions and one eight-mark extended open-response question.

Section C: comprises one 12-mark and one 16-mark extended open-response question. The 12-mark question covers either biological psychology or learning theories and development and the 16-mark question covers both biological psychology, and learning theories and development.

The assessment is 2 hours.

The assessment consists of 96 marks

Example 1 Mathematical Skills

June 2018 Question 4c

Explain one weakness of the mean as a measure of central tendency.

This question required candidates to explain a weakness of the mean. Candidates should identify a weakness, and then elaborate or justify why the weakness they have identified is a weakness. A common error is the lack of justification or exemplification; therefore, candidates do not access the A03 mark.

(c) Explain **one** weakness of the mean as a measure of central tendency.

(2)

the mean can be influenced easily
by anomalies as it is the average
of every result.

Examiner commentary

This candidate scored 1 mark.

The weakness was clearly identified as the fact that it could be affected by anomalies.

The candidate did not go on to exemplify or justify this weakness so could not access the A03 mark.

(c) Explain **one** weakness of the mean as a measure of central tendency.

(2)

It takes in count the extreme numbers and therefore the mean
wouldn't be valid so that very large or small number has caused
the mean to be too high or too low.

Examiner commentary

This candidate scores 2 marks.

It gained 1 mark for identifying a weakness as it takes account of extreme scores.

The second mark was gained for exemplifying this weakness as the fact that a very large or small number may affect it therefore it may not be valid.

In mathematical questions of this nature if candidates are asked to explain then they should ensure that there is an explanation in the form of justification or exemplification. This is a requirement of questions that ask for strengths and/or weakness, and also a requirement of mathematical questions that may ask for an explanation in terms of data, for example explaining why a statistical test was used.

Example 2 Short Answer question

June 2018 Question 8a

Describe free association as it is used in psychoanalysis.

This question asked candidates to describe free association. A common error was to not include enough descriptive points to access all the marks. A further error was to describe word association rather than free association.

(a) Describe free association as it is used in psychoanalysis.

(4)

In free association patients are given a clue word and are asked to recall ideas or memories that may relate to the clue word they are given. Freud believed that by doing this repressed thought from the unconscious world emerge and problems and conflict of the patient would be resolved by these repressed thoughts emerging. He also believed that by doing this, the repressed thoughts would help explain the abnormal behaviour of these patients.

Examiner commentary

This candidate gained 1 mark.

The mark is given for the point about repressed thoughts from the unconscious emerging and the problem being solved. The last sentence is repetition of this point.

(a) Describe free association as it is used in psychoanalysis.

(4)

Free association first requires the therapist and client to build a trusting relationship, as the client will need to be completely open and honest. The therapist will then encourage the patient to keep up a fast, free, and uncensored flow of speech. The therapist will identify recurrent themes, words, and behaviours all whilst maintaining the role of a 'blank wall' and not talking about themselves. The therapist will then begin a conversation about the recurrent themes to identify the root causes of the problem, for example a client who keeps talking about ~~parents~~ ^{family} may have unresolved conflicts with their own parents.

Examiner commentary

This candidate gained all four marks.

The first mark was given for the point about the client and therapist having to build up a trusting relationship so the client will be open and honest.

The second mark comes in the second sentence about the therapist encouraging the client to keep up a fast, free and uncensored flow of speech.

The third mark comes in the next sentence about the therapist identifies recurrent themes, words and behaviours whilst maintain a blank wall.

The final mark is for the point about the therapist begins a conversation about the recurrent themes to identify the root cause of the problem.

A describe question can either be A01 or A02 if there is a scenario with the question. For questions that ask a candidate to describe candidates need to give an account of something, they must go beyond a statement and develop their point. Candidates should look at the marks for the question to determine how many descriptive points to write, in this case the question was worth four marks so four points were needed. Descriptive points need to be accurate in order to access the marks, for example, in this question some candidates used the term subconscious rather than unconscious.

Example 3 Application question

June 2018 Question 2d

Explain one improvement Oti could have made to her experiment.

This question required candidates to identify an improvement Oti could have made to her experiment and explain through justification or exemplification why this would improve her experiment.

Those candidates who did not gain full credit often did not link to the context as is required for the A02 part of the question, and they often gave generic answers rather than focus on aspects of Oti's experiment.

(d) Explain **one** improvement Oti could have made to her experiment.

(2)

She could have started done counter-balance to have 2 groups of participants each doing different conditions then swapping over later.

Examiner commentary

This answer did not gain any credit. It is a generic answer that has no links to the context in terms of what the two conditions were (drinking coffee or not drinking coffee) therefore the A02 mark could not be awarded. There is also no attempt to explain why this would be an improvement to the study in terms of justification or exemplification, so the A03 mark was also not awarded.

(d) Explain **one** improvement Oti could have made to her experiment.

Oti could have had two different groups ^{to complete the puzzle (2)} by using an independent groups design which would have eliminated the demand characteristics and order effects brought by doing the same puzzle twice.

Examiner commentary

This candidate gained both of the marks available.

The first mark is for identifying the strength that Oti could have used two different groups to complete the puzzle, this is clearly linked to the context in terms of 'completing the puzzle'.

The answer then goes on to explain why this would improve Oti's experiment by stating that it would eliminate demand characteristics and order effects brought by doing the same puzzle twice.

A common mistake on application questions is candidates not applying to the context. Candidates need to do more than just repeat a name, they should use information from the context within their points. This is a requirement of A02 questions whether they are explain, as in this case, or describe or discuss.

Another common error when candidates are asked to explain an improvement is to state a weakness of the study that was given and then identify how this could be improved, but they fail to explain why this would be an improvement. If a question asks for an improvement of a study, whether it is a study in detail or a study where the context has been provided, candidates should focus on why it is an improvement.

Example 4 Extended Response question

June 2018 Question 11

In your studies you will have learned about the following classic studies in detail.

- Raine et al. (1997) Brain abnormalities in murderers indicated by positron emission tomography.
- Watson and Rayner (1920) Little Albert: conditioned emotional responses.

Evaluate both of these classic studies in terms of reliability and validity.

This is a levels based question where candidates are required to give a balanced evaluation of the reliability and validity of both Raine et al. (1997) and Watson and Rayner (1920). Candidates need to show an awareness of competing arguments, for example why the two studies are and are not reliable, which must be well-developed and logical as well as presenting a balanced conclusion.

11 In your studies you will have learned about the following classic studies in detail.

- Raine et al (1997) Brain abnormalities in murderers indicated by positron emission tomography.
- Watson and Rayner (1920) Little Albert conditioned emotional responses.

Evaluate both of these classic studies in terms of reliability and validity.

[16]

The Raine et al study used opportunity sampling in order to obtain their participants, which

The participants were convicted murderers, pleading ~~or~~ to Not Guilty due to Reasons of Insanity (NGRIs).

This means that as the participants were all murderers, there may have been other extraneous variables causing affecting their behaviour, not ~~the~~ brain activity.

However, the use of PET scans and the continuous performance tasks makes the study ~~quite~~ easy to replicate meaning its reliability can be tested.

As it was done in a lab, it lacks ecological validity as it does not represent a real life setting.

Watson and Rayner's study of Little Albert was a case study.

meaning it had a good ecological validity as it was in a real life setting however, it will not be very generalisable as the sample size was just 2 and therefore, the behaviour may be can't be generalised to the general population, and as the sample size was just 2, it also lacks population validity.

The little Albert study does however have a very good reliability as the procedure was standardised, making it replicable, increasing its reliability. It was also supported by another study done by Pavlov, increasing its reliability as both studies were done on classical conditioning and found that behaviours can be learned through association.

In order to make the study's more replicable, experimenters

to have standardised procedures with a lot of controls so the study can be replicated, increasing its reliability if results are similar.

To increase validity, experimenters must ~~ensure~~ eliminate as many extraneous variables as possible and larger sample sizes increase population validity (of all age groups, cultures and genders).

In conclusion, both studies are reliable and valid.

Examiner commentary

This candidate scores 5 marks.

Knowledge and understanding is isolated for Raine et al. on the first page, there is very little detail about the study, and the candidate does attempt to evaluate, but offers brief statements with no development of form, for example they do not say why PET scans are easy to replicate, so it is also limited.

The knowledge and understanding for Watson and Rayner is also limited, there is very little detail about the study on page two. For example, the candidate states that the procedure was standardised but does not give any detail about the procedure. The evaluation is better than the evaluation for Raine et al. and shows some development of form such as saying the study cannot be generalised as there was only a sample of 1, though this could be further developed to explain why a sample of one could not be generalised.

Therefore, the response has isolated knowledge and understanding, but does produce some statements with some development of form, and there is a superficial conclusion. As the A03 is worth more than the A01 in a 16 mark extended response essay this can take it into level two for the final mark of 5.

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Evaluate both of these classic studies in terms of reliability and validity.

(16)

For a study to be reliable it means its results and findings are consistent.

For a study to have good validity it means that it is accurately measuring what it's supposed to.

There are two types of validity: external validity which is if the results can be generalised, and internal validity which is if nothing other than the IV (independent variable) affects the results.

Raine et al. (1997) was a study on brain abnormalities in murderers using PET scans, as seen in the question. Raine used 41 murderers only, 7 of which were female. Of these 41, 12 had brain damage, 3 had history of drug abuse, 6 with schizophrenia, 2 with epilepsy and 7 with learning difficulties or emotional problems. There was also a group of 41 controls which were matched to the participants through age and gender. The participants and controls were kept off drugs for two weeks before the PET scans. They were then injected with a tracer and were scanned whilst doing

an activity for 32 minutes.

Watson & Rayner (1920) did something very different. They only had one participant to know to the psychology world as little Albert. They had picked him at nine months old and presented him with a variety of animals and objects to be sure he did not fear any of them. Then at eleven months they taught him to fear a white rat by hitting a rod with a hammer whenever he saw the rat. 12 days later he was still scared of the rat and other things that he considered similar to the rat. After 17 days he no longer feared the rat but the association was quickly made again ~~and~~ but he then was not scared of the other objects. Albert was then taken out of the hospital so no further tests could be done.

Rayner's study has, in total, 87 patients and the end results were all similar, meaning there is a bit of reliability in the study. However, there is no follow-up study on this theory that I know of, so we can not say this study is reliable.

Watson & Rayner on the other hand, only had one participant and no follow-up study either. Because we have no proof or argument against its reliability.

Watson & Rayner's validity is something else. As they only had one participant, there is a high risk of participant variables which could cause a result. This means they have a low internal validity. This also means that the results can not be generalised to a whole population based on one child. Giving Watson & Rayner low external validity as well.

Now let's talk about Raine's validity. A lot of their variables seem to have been controlled, as it was well operationalised. This means there is less chance that something other than the IV effected the results, giving them a high internal validity. And again, as they had a large number of participants it makes it easier to generalise. Giving them high external validity as well.

In conclusion, Raine et al. (1997) seems to have higher levels of validity and reliability.

compared to Watson & Rayner (1920).

Examiner commentary

This candidate gained 14 marks.

The first page is all A01, there is a definition of reliability and validity and this is followed by a description of Raine et al. which shows accurate and thorough knowledge and understanding, there is detail about the sample, how they were matched and what the sample had to do. Details of the results are missing.

On the second page there is also evidence of accurate and thorough knowledge and understanding of Watson and Rayner's study, with details about the sample, the procedure and the results.

The A03 at the bottom of page 2, about the reliability of Raine, has some development of form.

On page 3 the candidate goes on to evaluate the reliability of Watson and Rayner's study in the form of the fact it was not replicated. The candidate then goes on to evaluate the validity of Watson and Rayner's study in a well-developed way, followed by an evaluation of the validity of Raine et al. which is also well developed.

There are mini conclusions throughout the essay as well as a conclusion at the end.

Therefore, this essay shows accurate and thorough knowledge and understanding in the essay, as well as an evaluation that is mainly well-developed and logical, with an awareness of competing arguments and a balanced conclusion.

The 16-mark extended response question at the end of WPS02 requires the candidate to show knowledge and understanding as well as evaluative skills. If there is a context the candidate must also demonstrate A02 skill by applying their answer to details from the context. In this case the skills that the candidate needed to demonstrate was knowledge and understanding and evaluative skills, with more emphasis being on the evaluative skills. If the question included application, then the knowledge and understanding have equal weighting.

The 16-mark question will also require candidates to use information from both biological psychology and learning theories and development, with both having an equal emphasis. Some candidates focus on one of the topic areas rather than both, so not answering half of the question.

Candidates often do not show their knowledge and understanding, which should be used to develop their evaluative points, or they demonstrate a great deal of knowledge and understanding but fail to develop their arguments. Candidates should practice using their knowledge and understanding to develop their evaluative comments.