



Student responses with examiner commentary (based on SAM1)

A-level Psychology 7182/2
Psychology in Context

[First teaching: September 2015]

[First Examination: Summer 2017]

Introduction

These resources should be used in conjunction with the Specimen Assessment Material (7182/2) from the AQA website. This document illustrates how examiners intend to apply the mark scheme in live papers. The question papers will be marked using a levels of response mark scheme. These answers and the accompanying commentaries have been produced to help you understand what is required to achieve the different levels and how the mark scheme is to be interpreted. These principles of marking apply across all papers.

While every attempt has been made to show a range of student responses, the following responses, and examiner comments provide teachers with the best opportunity to understand the application of the mark scheme. Responses have not been produced for every question but rather cover a variety of different types of questions and topic areas.

*Please note that the students' responses have been typed exactly as they were written.

QUESTION

02 Read the item and then answer the question that follows.

In a laboratory study of problem-solving, cognitive psychologists asked participants to solve problems presented in different colours of ink. They found that it took longer to solve problems presented in green ink, than it did to solve problems presented in other colours. They inferred that the mental processing of problems is made more difficult when a problem is presented in green ink.

Explain what is meant by 'inference' in relation to this study.

[2 marks]

MARK SCHEME

Marks for this question: AO2 = 2

1 mark for an explanation of inference: going beyond the immediate evidence to make assumptions about mental processes that cannot be directly observed.

Plus

1 mark for a sound application to the study with clear description about what is being inferred (problem difficulty/more difficult processing) on the basis of what is being measured (time taken to solve the problem in the different conditions). Award **1 mark** only for answers where knowledge of inference and application are only partially clear.

Exemplar Response

The inference or conclusion from the findings of the study is that the time taken to solve problems is dependent on the difficulty of the task.

Examiner commentary

This response gives an appropriate application of inference to the study described and this gains one mark. There is no explanation of inference.

Mark awarded = 1

QUESTION

03 Read the item and then answer the question that follows.

Dominic is unhappy and lacks confidence. He also thinks he is not very good-looking and not very clever. He goes to a counselling therapist for help. The therapist suggests that Dominic lacks congruence.

Outline what is meant by 'congruence'. Explain one way in which Dominic might achieve 'congruence'.

[4 marks]

MARK SCHEME

Marks for this question: AO1 = 2 and AO2 = 2

Level	Marks	Description
2	3–4	Outline of congruence is clear and coherent with appropriate use of terminology. Application to Dominic is appropriate with description of need to reduce the gap and how to achieve this.
1	1–2	Outline is limited, ie shows some knowledge that congruence involves different aspects of the self. Application is vague. The answer as a whole is not very clearly expressed.
	0	No relevant content.

Content/Outline:

- congruence is the fit/match/comparability/consistency between the perceived self (how you see yourself) and the ideal self (the self you would like to be).

Application:

- Dominic needs to close the gap/discrepancy between his perceived and his ideal self
- gap can be reduced/closed if he develops a more healthy view of himself, or, has a more achievable and realistic ideal self – unconditional positive regard from the therapist is an example of a specific strategy here.

Exemplar Response

Congruence is a mismatch between the self as known to the person and the self the person would like to be (ie their ideal self). The therapist could work to help Dominic close the gap between those two incongruent aspects of self-helping him have a more realistic view of self. By the therapist offering unconditional positive regard (UPR) a more realistic view of self could be achieved by Dominic.

Examiner commentary

This is a Level 2 response. The outline of congruence is clear and terminology (e.g. ideal self) is appropriately used. There is good reference to 'closing the gap' and how this might be achieved.

Mark awarded = 4

QUESTION

04 Discuss the contribution of behaviourist psychologists such as Pavlov and Skinner to our understanding of human behaviour.

[16 marks]

MARK SCHEME

Marks for this question: AO1 = 6 and AO3 = 10

Level	Marks	Description
4	13–16	Knowledge of contribution/s is accurate and generally well detailed. Discussion is thorough and effective. Answer is clear, coherent and focused on contributions to understanding human behaviour. Specialist terminology is used effectively. Minor detail and/or expansion of argument sometimes lacking.
3	9–12	Knowledge of contribution/s is evident and there is some reference to the understanding of human behaviour. There are occasional inaccuracies. Discussion is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology mostly used effectively. Lacks focus in places.
2	5–8	Knowledge of contribution/s is present. Focus is mainly on description. Any discussion is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology used inappropriately on occasions.
1	1–4	Knowledge of contribution/s is limited. Discussion is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.
	0	No relevant content.

Content, possible contributions:

- gave appreciation of how behaviour is learnt and environmentally determined
- large scale data gathering and generalisation allowed for development of laws and principles
- gave us theories of learning and laws of learning – classical and operant conditioning theories
- emphasised importance of consequences, ie behaviour that is rewarded likely to be repeated
- emphasised role of reinforcement and punishment – strengthens or weakens learning
- insistence on objectivity and study of overt behaviour – raising psychology’s scientific status.

Credit other relevant contributions.

Discussion of possible contributions:

- strict scientific methods, objectivity, controlled research, verifiable findings led to raised status of psychology but meant that many aspects of human behaviour could not be studied
- implications, eg development of laws and principles enabled prediction and control of behaviour and how these apply to human behaviour
- usefulness for aspects of human behaviour, eg therapy, classroom management etc
- reductionist approach focusing on lower level of explanation, eg S-R links/associations therefore lacks meaning when it comes to complex human behaviours
- focus just on behaviour neglected the whole person, eg in treatment using conditioning only
- strongly deterministic – human behaviour is environmentally determined – what of free will?
- research mainly with animals therefore generalisation to human behaviour could be limited
- discussion about the balance between reliability and validity in behaviourist research
- ethical issues, eg as applied to control of human behaviour
- comparison with what other approaches offer in explanations of human behaviour.

Credit other relevant strengths and limitations.

Exemplar Response

One contribution of the behaviourist approach to our understanding of human behaviour is learned through our experiences with the environment. This approach therefore believes that experiences and our interactions with the environment make us what we are. It has helped us understand that we are what we are because of stimulus – response units of behaviour which are determined by our environment (environmental determinism). Another contribution to our understanding of human behaviour is that our behaviour is learned through conditioning rather than inherited through our biology, or conscious thoughts. This offers us a way to understand human behaviour (and animal behaviour) by simply focusing in observable, measureable behaviour. This is based on the idea that to understand human behaviour there is no need to go inside the ‘black box’ of the mind (eg thinking, memory etc) only the need to observe external and observable behaviour. Key to our understanding of human behaviour are the contributions of Ivan Pavlov and his theory of learning through association called classical conditioning and BF Skinner and his theory or learning through reinforcement called operant conditioning.

A strength of this approach is its scientific approach to understanding human behaviour and its belief that all aspects of our behaviour can be studied in controlled experimental settings which can be replicated by others to check for reliability.

Examiner commentary

This is a Level 2 answer. There is some knowledge of the behaviourist approach with accurate use of terminology such as environmental determinism, stimulus-response etc. There could have been reference made to, and/or expansion of, other behaviourist principles such as 'reinforcement' 'association' etc. but the essential nature of behaviourism is evident and the focus is on the contribution to human behaviour. There are some relevant but limited discursive points such as the comparison with the biological approach and the scientific nature of the research. The discussion is only partially effective but there would need to be further discussion points in order to access the next level.

Mark awarded = 8

QUESTION

06 The electroencephalogram (EEG) and event-related potentials (ERPs) both involve recording the electrical activity of the brain.

Outline one difference between the EEG and ERPs.

[2 marks]

MARK SCHEME

Marks for this question: AO1 = 2

2 marks for clear outline of the key difference: EEG is a recording of general brain activity usually linked to states such as sleep and arousal, whilst ERPs are elicited by specific stimuli presented to the participant.

1 mark for a muddled/vague answer that shows some understanding of general state vs specific response.

Note - question is about differences, so no credit for simply describing the technique.

Exemplar Response

EEG is a general recording of electric brain activity eg sleep state where ERPs are produced when specific stimuli are presented to the person.

Examiner commentary

This is a clear outline of the key difference between EEG and ERPs and would gain both marks.

Mark awarded = 2

QUESTION

07 Read the item and then answer the question that follows.

Sam is a police officer. She has just started working the night shift and after a week, she finds that she has difficulty sleeping during the day and is becoming tense and irritable. Sam is also worried that she is less alert during the night shift itself.

Using your knowledge of endogenous pacemakers and exogenous zeitgebers, explain Sam's experiences.

[4 marks]

MARK SCHEME

Marks for this question: AO2 = 4

Level	Marks	Description
2	3–4	Knowledge of the role of endogenous pacemakers and exogenous zeitgebers and how they interact to affect the normal sleep-wake cycle is clear and mostly accurate. The material is used appropriately to explain Sam's experiences/symptoms. The answer is generally coherent with effective use of specialist terminology.
1	1–2	Some knowledge of the role of endogenous pacemakers and exogenous zeitgebers in the sleep-wake cycle is evident. The material is not always linked explicitly or effectively to Sam's experiences/symptoms. The answer lacks accuracy and detail. Use of specialist terminology is either absent or inappropriate.
	0	No relevant content.

Content:

- endogenous pacemakers – internal biological rhythms
- exogenous zeitgebers – external factors, eg light
- moving to night shift means pacemakers try to impose inbuilt rhythm of sleep, but are now out of synchrony with the zeitgeber of light
- disruption of biological rhythms has been shown to lead to disrupted sleep patterns, increased anxiety and decreased alertness and vigilance.

Exemplar Response

As Sam has been on night shift for a week her endogenous pacemaker or internal biological clock is out of sync with the exogenous zeitgeber of light. This is because she has to remain awake at night when it is dark and sleep during the day when it is light. This disruption in her sleep-wake cycle has been linked to the problem Sam is experiencing such as difficulty sleeping and feeling tense and irritable.

Examiner commentary

This is a Level 2 response. The answer is written clearly and succinctly and there is accurate knowledge of the role of endogenous pacemakers and exogenous zeitgebers. There is a clear link to Sam's experience of night shift working and the symptoms she is experiencing. There is effective use of specialist terminology.

Mark awarded = 4

QUESTION

09 Outline the structures and processes involved in synaptic transmission.

[6 marks]

MARK SCHEME

Marks for this question: AO1 = 6

Level	Marks	Description
3	5–6	Knowledge of both structures and processes involved in synaptic transmission, including reference to both presynaptic and postsynaptic processes, is generally accurate and mostly well detailed. The answer is clear and coherent. Specialist terminology is used effectively.
2	3–4	Knowledge of both the structures and processes involved in synaptic transmission is evident. Focus is on pre or postsynaptic processes. There are some inaccuracies. There is some appropriate use of specialist terminology.
1	1–2	Knowledge of structures and/or processes involved in synaptic transmission is limited and lacks detail. There are inaccuracies. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Content: the synaptic cleft; pre and postsynaptic membranes; postsynaptic receptor sites, neurotransmitters in vesicles in the presynaptic terminal, release of neurotransmitters into the synaptic cleft when stimulated by nerve impulses (action potentials) arriving at the presynaptic terminal, combination of neurotransmitters with postsynaptic receptors; postsynaptic effects either excitatory (depolarisation) or inhibitory (hyperpolarisation).

Diagrams can describe the structure effectively but text is necessary to explain the processes.

Exemplar Response

This is a process in which signalling molecules called neurotransmitters are released by a neuron (pre synaptic neuron) and achieve the reception or other neuron called the post synaptic neuron.

Examiner commentary

This is a Level 1 response. There is some understanding of the process of synaptic transmission (the release of neurotransmitters) and of the structure (pre- and post-synaptic neuron) but the answer is very brief and lacks sufficient detail. It would require detail regarding, for example, vesicles/action potential/synaptic cleft etc. to gain a higher level. The second half of the sentence also lacks clarity.

Mark awarded = 2

QUESTION

11 Briefly evaluate research using split brain patients to investigate hemispheric lateralisation of function.

[4 marks]

MARK SCHEME

Marks for this question: AO3 = 4

Level	Marks	Description
2	3–4	Evaluation is relevant and well explained. Answer focuses on the usefulness of split brain research for the study of hemispheric lateralisation. The answer is generally coherent with effective use of terminology.
1	1–2	Evaluation is relevant although there is limited explanation and/or limited focus on the purpose of the research. Specialist terminology is not always used appropriately. Award one mark for answers consisting of a single point briefly stated or muddled.
	0	No relevant content.

Possible evaluation points:

- the disconnection between the hemispheres was greater in some patients than others
- some patients had experienced drug therapy for much longer than others
- the comparison groups were not considered to be valid as they were often people with no history of epileptic seizures

-
- the data were artificially produced as in real life a severed corpus callosum can be compensated for by the unrestricted use of two eyes
 - the research has added to the unity of consciousness debate
 - research relates to small sample sizes.

Credit other relevant evaluation points.

Exemplar Response

The split brain patients suffered from severe epilepsy over a period of several years and epilepsy is normally associated with brain damage which combined with (?) may have affected the brain of split brain patients in (?) This makes it hard to know whether the ways in which they processed before the operation was the same as people with intact brains. Also, the sample of split brain participants studied is small and may have been influenced by all kinds of individual differences eg age and IQ making generalisations.

Examiner commentary

This is a Level 1 response. There are some relevant points made with regard to sample size and lack of knowledge of processing prior to the operation. The answer, however, lacks coherence and it is difficult to understand some of the points raised eg the first sentence. The final point regarding 'generalisation' needs further explanation too.

Mark awarded = 2

QUESTION

12 Identify the dependent variable in this study.

[2 marks]

MARK SCHEME

Marks for this question: AO2 = 2

2 marks for identification of dependent variable operationalised: number of verbal errors.

1 mark for dependent variable not operationalised: verbal errors or fluency or mistakes.

Exemplar Response

The number of verbal errors made by each participant.

Examiner commentary

This answer correctly identifies and operationalises the dependent variable.

Mark awarded = 2

QUESTION

13 Write a suitable hypothesis for this study.

[3 marks]

MARK SCHEME

Marks for this question: AO2 = 3

3 marks for an appropriate non-directional (or directional) operationalised hypothesis:

‘There is a difference in number of verbal errors made by participants who perceive/think/believe there are 5 listeners (there is a small audience) and by participants who perceive/think/believe there are 100 listeners (there is a large audience)’.

2 marks for a statement with both conditions of the IV and a DV that lacks clarity or has only one variable operationalised.

1 mark for a muddled statement with both conditions of the IV and a DV where neither variable is operationalised.

0 marks for expressions of aim/questions/correlational hypotheses or statements with only one condition.

Full credit can be awarded for a hypothesis expressed in a null form.

Exemplar Response

There will be a difference in the number of verbal errors made by participants who believe that only five listeners and those who believe there are 100 listeners.

Examiner commentary

This is an appropriate non-directional and operationalised hypothesis.

Mark awarded = 3

QUESTION

14 Identify one extraneous variable that the psychologist should have controlled in the study and explain why it should have been controlled.

[3 marks]

MARK SCHEME

Marks for this question: AO2 = 3

1 mark for identification of **one** appropriate extraneous variable.

Plus

2 marks for explanation of why the variable should have been controlled – for full marks this should include clear explanation of how it would have affected the DV. Award one mark only for muddled or incomplete explanations, eg unelaborated reference to ‘avoiding confounding’.

Appropriate variables: can be controlled and need to stay constant to avoid affecting the dependent variable, eg same article/conditions/instructions for each participant.

Do not credit gender (this is controlled) or time to complete task (cannot be controlled).

Exemplar Response

It would be important to control for the participant’s level of familiarity with the famous author as increased levels of familiarity could decrease the number of verbal errors. This uncontrolled participant variable could affect the DV (verbal error rate) rather than the IV.

Examiner commentary

This is an appropriate extraneous variable and fully explained with regard to the effect on the dependent variable.

Mark awarded = 3

QUESTION

- 15 Explain one advantage of using a stratified sample of participants in this study. [2 marks]

MARK SCHEME

Marks for this question: AO2 = 2

2 marks for clear and coherent explanation of one advantage of using a stratified sample in this study.

1 mark for a muddled answer with a relevant advantage and some explanation in relation to the study.

Possible advantage: ensures that this sample is truly representative because different types of people (males/females) working in this company are represented in the sample in the correct proportions.

Accept other relevant advantages.

Exemplar Response

This method is more representative than other methods because there is a proportional representation of the strata or sub group eg 60 males and 40 females in the company. To begin with all the names of the 60 male employees would be put into a hat. The psychologist then needed to work out the 60% is of the sample of 20 required $10\% \text{ of } 20 = 2 \times 6 = 12$ so need to draw out 12 names from the hat.

Examiner commentary

This is a full response and accurately explains an advantage of stratified sampling. The first sentence would gain the credit, the outline of the technique is unnecessary.

Mark awarded = 2

QUESTION

- 16 Explain how the psychologist would have obtained the male participants for her stratified sample. Show your calculations.

[3 marks]

Marks for this question: AO2 = 3

1 mark for each point as follows:

Manual method:

- put all 60 male names in a hat (or similar)
- determine the proportion of males needed to mirror the number of males in the target population as follows: 60%
- calculate 60% of 20 = 12 and draw out 12 names.

Random number table or computer method:

- assign each of the 60 men a number between 1 and 60
- determine the proportion of males needed to mirror the number of males in the target population as follows: 60%
- calculate 60% of 20 = 12 and moving horizontally or vertically through random number tables find 12 numbers between 1 and 60 for the sample **OR** generate 12 numbers between 1 and 60 using random number generation function on computer.

Exemplar Response

To begin with all the names of the male employees would be put into a hat. The psychologist then needed to work out that 60% is of the sample of 20 required $10\% \text{ of } 20 = 2 \times 6 = 12$.

Examiner commentary

This response correctly states put 60 male names into a hat (1 mark) and then how to work out 60% of 20 (1 mark). Unfortunately, the answer fails to mention the last step ie draw out the 12 names.

Mark awarded = 2

QUESTION

- 17 The psychologist wanted to randomly allocate the 20 people in her stratified sample to the two conditions. She needed an equal number of males in each condition and an equal number of females in each condition. Explain how she would have done this.

[4 marks]

MARK SCHEME

Marks for this question: AO2 = 4

Marks for a clear description of a practical way of randomly allocating the 12 men and 8 women to the two conditions as follows:

- give each man a number 1–12 (1 mark)
- put 12 numbers in a hat (1 mark)
- assign first six numbers drawn to Condition A with the remainder for Condition B (1 mark)
- repeat process for women – eight numbers in the hat and draw four for Condition A and remaining four go to Condition B (1 mark).

Accept other valid descriptions that would be practical and produce the same outcome.

Exemplar Response

All 12 males could be given a number from 1 to 12 and put in a hat. The first 6 numbers drawn from the hat could be allocated to group or condition A and those remaining in the hat would be assigned to condition B. The same process could be repeated for the females (10% of 20 = 2 X 4 = 8). Eight females' names go into a hat numbered one to eight where the first four recently drawn are allocated to condition A and the remaining 4 are assigned to condition B.

Examiner commentary

This is a clear description of a practical way of randomly allocating the 12 men and 8 women to the two conditions and gains all the points on the mark scheme.

Marks awarded = 4

QUESTION

- 18 What conclusions might the psychologist draw from the data in Table 1? Refer to the means and standard deviations in your answer.

[6 marks]

MARK SCHEME

Marks for this question: AO2 = 2 and AO3 = 3

Level	Marks	Description
3	5–6	Conclusions in respect of both means and standard deviations are presented with clarity. Understanding of the relevance of each statistic is demonstrated. Justifications for each make good use of the values given.
2	3–4	Conclusions and justification in respect of both means and standard deviations are relevant, but there is some lack of clarity in both. Or, one is done well and justified appropriately (most usually this will be the mean).
1	1–2	One conclusion is drawn or two are partially correct. Any justification is limited. The answer lacks clarity.
	0	No relevant content.

Means

- Conclusion: when people believe they are presenting to a large audience they are less fluent in their spoken communication than when they believe the audience is small (or vice versa).
- Justification/Application: this is supported by the difference in the mean fluency scores which show more verbal mistakes (on average 6 more mistakes) when the audience is believed to be large (or vice versa).

Standard deviations

- Conclusion: performances of participants in Condition A where audience is believed to be small are less varied/dispersed/spread out than in Condition B where audience is believed to be large (or vice versa).
- Justification/Application: lower SD in Condition A suggests that individual performances in Condition A were more similar to each other and/or all quite close to the mean of 11.1.

Exemplar Response

Condition B has a larger mean number of errors, 17.2, than condition A, 11.1. This suggests that readers are likely to make more verbal errors when they think they are speaking to a larger audience. Condition B also has a larger standard deviation, 3.54, than condition A, 1.30. This shows that the mean of 3.54 is less representative of the scores in condition B than the mean of 1.30 for condition A.

Examiner commentary

This is a Level 2 response. The mean is considered effectively with an appropriate conclusion drawn. The standard deviation explanation is confused and other than stating the standard deviations there is no coherent answer. It would seem that the numbers from the table (mean and SD) have been inadvertently mixed up.

Mark awarded = 3

QUESTION

19 Explain how using the standard deviation rather than the range, in this situation, would improve the study.

[3 marks]

MARK SCHEME

Marks for this question: AO3 = 3

1 mark – this would be an improvement because the SD is a measure of dispersion that was less easily distorted by a single extreme score.

Plus

1 mark – one that takes account of the distance of all the verbal error scores from the mean.

Plus

1 mark – not just the distance between the highest verbal error score and the lowest verbal error score.

Exemplar Response

The range is the difference in the number of errors made between the lowest and highest scores. As such it is affected by scores that are either much higher or much lower than the majority and so can give a false impression of the dispersion of the scores. It also only involves the highest and lowest scores.

The standard deviation on the other hand is a standardised measure of dispersion and involves the use of every score, so is less sensitive to outliers. The study would be improved because the standard deviation offers a more representative measure of dispersion so conclusions from these values will be more reliable.

Examiner commentary

This is a detailed answer that explains the problem of outliers and the distorted effect these can have on the range, the latter only taking the highest and lowest scores into consideration. What it does not mention is that the standard deviation takes account of the distance of all the “verbal error scores” from the mean – which is a requirement for one of the marks on the mark scheme.

Mark awarded = 2

QUESTION

20 Name an appropriate statistical test that could be used to analyse the number of verbal errors in Table 1. Explain why the test you have chosen would be a suitable test in this case.

[4 marks]

MARK SCHEME

Marks for this question: AO2 = 4

1 mark for naming the t-test for independent/unrelated groups or a Mann-Whitney test.

Plus

Up to 3 marks for explanation for unrelated t-test. Credit relevant points as follows:

- can assume interval data because verbal errors can be assumed to be of equal size (ie one verbal error is equivalent to any other verbal error)
- the experimental design is independent groups
- the psychologist is looking for a difference between the two conditions.

OR

Up to 3 marks for explanation for Mann-Whitney test. Credit relevant points as follows:

-
- data should be treated as ordinal. Cannot assume interval data because verbal errors cannot be assumed to be of equal size (ie one verbal error is not equivalent to any other verbal error)
 - the experimental design is independent groups
 - the psychologist is looking for a difference between the two conditions
 - SDs are quite different.

Exemplar Response

Mann Whitney. This would be suitable as the psychologist is looking for a difference between the 2 conditions.

Examiner commentary

One mark awarded for the Mann Whitney test which is an appropriate test but only one point of justification made.

Mark awarded = 2

QUESTION

21 The psychologist found the results were significant at $p < 0.05$. What is meant by ‘the results were significant at $p < 0.05$ ’?

[2 marks]

MARK SCHEME

Marks for this question: AO1 = 2

2 marks for a clear and appropriate definition as follows:

This means that there is a less than 5% likelihood that this difference would occur if there is no real difference between the conditions **OR** the researchers would have a 95% confidence level.

1 mark for a less clear answer which shows some understanding, eg this means the researcher can conclude that the difference was not due to chance.

Accept any other valid answer.

Exemplar Response

The probability that the result occurs due to chance are less than 5%.

Examiner commentary

This is a clear and appropriate response which points to the ‘less than 5%’ and refers to ‘chance’.

Mark awarded = 2

QUESTION

22 Briefly explain one method the psychologist could use to check the validity of the data she collected in this study.

[2 marks]

MARK SCHEME

Marks for this question: AO2 = 2

2 marks for a clear and detailed explanation applied to this study.

1 mark for a partial or muddled explanation or one that is only loosely applied to the study.

Credit answers based on any type of validity. Most answers will refer to either face or concurrent as follows:

- asking other people if verbal errors are a good measure of verbal fluency (face validity)
- giving participants an alternative/established verbal fluency test and checking to see that the two sets of data are positively correlated (concurrent validity).

Exemplar Response

One way would be to give the p's an alternative test to see if the scores are similar.

Examiner commentary

There is a hint here of concurrent validity but more detail is required and/or a firmer link to this study for any marks to be awarded. For example, would the 'alternative test' be of 'verbal fluency'? How would you test for similarity?

Mark awarded = 0

QUESTION

23 Briefly explain one reason why it is important for research to undergo a peer review process.

[2 marks]

MARK SCHEME

Marks for this question: AO3 = 2

2 marks for a clear and coherent explanation of one reason.

1 mark for a partial or muddled explanation of one reason.

Possible content:

- prevents dissemination of irrelevant findings/unwarranted claims/unacceptable interpretations/personal views and deliberate fraud – improves quality of research
- ensures published research is taken seriously because it has been independently scrutinised
- increases probability of weaknesses/errors being identified – authors and researchers are less objective about their own work.

Accept other valid answers.

Exemplar Response

Peer review process is important as it allows research to be scrutinized before it is seen by the public.

Examiner commentary

This is a partial explanation of a relevant reason – ‘scrutiny’, although it is not developed eg **Independent** scrutiny to ensure

Mark awarded = 1

QUESTION

24 Design an observation study to investigate sex differences in non-verbal behaviour of males and females when they are giving a presentation to an audience.

In your answer you should provide details of:

- the task for the participants
- the behavioural categories to be used and how the data will be recorded
- how reliability of the data collection might be established
- ethical issues to be considered.

[12 marks]

MARK SCHEME

Marks for this question: AO2 = 12

Level	Marks	Description
4	10–12	Suggestions are generally well detailed and practical, showing sound understanding of observational techniques. All four elements are present. There is sufficient information for most aspects of the study to be implemented with success. The answer is clear and coherent. Specialist terminology is used effectively. Minor detail and/or explanation sometimes lacking.
3	7–9	Suggestions are mostly sensible and practical, showing some understanding of observational techniques. At least three elements are present. Implementation of some aspects is possible. The answer is mostly clear and well organised. Specialist terminology is mostly used effectively.
2	4–6	Some suggestions are appropriate but others are impractical or inadequately explained. At least two elements are addressed. Implementation would be difficult based on the information given. The answer lacks clarity, accuracy and organisation on occasions.
1	1–3	At least one element is addressed but knowledge of observational techniques is limited. Implementation would be very difficult. The whole answer lacks clarity, has many inaccuracies and is poorly organised.
	0	No relevant content.

Four elements of design to be credited:

- **The task for the participants** – detail of what the men and women in the study will have to do. This must go beyond ‘give a presentation to an audience’.
- **The behavioural categories to be used and how the data will be recorded** – detail of specific and observable behaviours to be recorded. This must go beyond the idea of global constructs such as ‘body language’ or ‘gesture’. Also detail of recording method to be used, eg record sheet.
- **How reliability of the data collection might be established**, eg using two observers/raters and comparing separate recordings; statistical comparison of data from both observers/raters.

-
- **Ethical issues to be considered**, eg specific or more general ethical considerations as applied to this study – protection of welfare, confidentiality and deception, respect or integrity.

Examples of possible tasks:

- presentation of findings from a school project
- presentation on 'My Hobby'
- presentation on 'My Holiday'.

Examples of suitable non-verbal behaviours include:

- arm movements
- smiling
- speech hesitations
- pointing etc.

Exemplar Response

The task that the male and female p's would be asked to do is to give a presentation to an audience about 'self' as this is something all p's would be able to do. All the p's would be given the same instructions in which the task would be outlined including the time they have to give the presentation and that there would be an audience of people watching. They would also be informed of their right to withdraw from the study at anytime. P's would also be informed that 2 observers would be in the audience and would be rating their non verbal behaviour – this would avoid the ethical issue of deception. The observers would be trained before the observation so they would know what the non verbal behaviour was.

Examiner commentary

This is a Level 2 response. It is a brief answer but there are two elements addressed – the task and ethical considerations, and the latter is quite detailed. However, implementation of this task would be difficult because there is no detail on behavioural categories, recording method etc. There is also no real explanation of reliability, other than the mention of two observers. There is some reference to standard instructions and training of observers but this is not explored in any detail.

Mark awarded = 5