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# A-LEVEL **PSYCHOLOGY**

7182/2 Psychology in Context Report on the Examination

7182 Autumn 2021

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#### **General Introduction to the Autumn Series**

This has been another unusual exam series in many ways. Entry patterns have been very different from those normally seen in the summer, and students had a very different experience in preparation for these exams. It is therefore more difficult to make meaningful comparisons between the range of student responses seen in this series and those seen in a normal summer series. The smaller entry also means that there is less evidence available for examiners to comment on.

In this report, senior examiners will summarise the performance of students in this series in a way that is as helpful as possible to teachers preparing future cohorts while taking into account the unusual circumstances and limited evidence available.

## **Overview of Entry**

The entry was much smaller than usual and in contrast to the previous series there were more incomplete scripts, where a number of questions had not been attempted. The majority of questions which were not attempted focused on inferential testing and it may have been that students did not cover this material or were less confident with this due to disruption in teaching or issues with learning this content remotely. Alternatively, as a high proportion of these questions were towards the end of the paper, this may be due to students running out of time in the exam, as opposed to significant gaps in knowledge. Again, this may be due to less experience of exam conditions in class tests and in external examinations for this cohort. It was pleasing to see continued improvements across series in the level of detail and use of appropriate terminology in the biopsychology questions. There was some strong application presented in sections A and B, but context was less apparent in section C. This may be due to the unique nature of this cohort having less teacher feedback on research methods responses and less opportunities for practical work, but teachers should remind students of the importance of providing appropriate context in research methods questions which request students to do this.

#### **Comments on Individual Questions**

#### Section A

#### Approaches in Psychology

#### **Question 01**

This was a very well addressed question, with the majority of students achieving a level 2 mark. Overall, students demonstrated a sound understanding of Pavlov's classical conditioning experiments and of Pavlovian concepts. There was some confusion over terminology for some students, the most common of which was muddling the neutral stimulus with unconditioned stimulus, but generally this question was answered well.

#### Question 02

Most students understood what was meant by the term 'ecological validity', but some explanations were limited. The most common mistake on this question was confusing ecological validity with population validity.

# Question 03

Overall students demonstrated excellent knowledge of genotype and phenotype with the majority of students achieving a level 2 mark. The most common reasons for students not achieving a level 2 mark were either due to confusion between monozygotic and dizygotic twins or due to a lack of effective application to explain Lily and Jemima's comments. It was encouraging to see how much better the answers were overall to those given on a similar question in the 2017 series, in terms of knowledge of phenotype and genotype as well as the application of this knowledge. There were some impressive answers which demonstrated excellent understanding through their engagement with the stem material.

# Question 04

This question discriminated well. There were some excellent responses where students gave some fantastic suggestions as to how Lily and Jemima could train their rat, using both positive and negative reinforcement, demonstrating understanding through appropriate application. Other students demonstrated knowledge of positive and negative reinforcement but struggled to apply their knowledge to give appropriate suggestions. A common error was to muddle negative reinforcement with punishment. Although positive and negative reinforcement were most commonly selected, credit was given to students who used vicarious reinforcement to offer appropriate suggestions in the context of the stem. Overall responses were well focused with good context, but some included ethical evaluation, which was not creditworthy.

# **Question 05**

This challenging question discriminated well. Most students demonstrated good knowledge of the two approaches, but description of the approaches alone was not creditworthy without explicit comparison. This mistake in reading the question or understanding the command term was often costly. Those who focused on comparison generally achieved well although there was some muddle in terms of free will and reductionism. Higher-attaining students were able to discuss similarities as well as differences. When therapy was discussed, the comparison was generally effective.

# Section B

# Biopsychology

# **Question 06**

Overall, descriptions of the structure of a neuron were generally accurate but the function was less well addressed. Although some students muddled terminology, there were some really excellent descriptions relating structure to function with an impressive level of detail. There was a range of approaches to answering this question, some described a reflex arc, others described the structural and functional differences between different types of neuron and others focused on the general structure of a neuron. These were all creditworthy and there were different ways to achieve the 6 marks depending on the depth/breadth of knowledge presented. Unfortunately, some students described the process of synaptic transmission rather than focusing their response on the question given.

Surprisingly few diagrams were seen. Students should be reminded that they can gain credit for information presented in a diagram and should be encouraged to use diagrams to help explain the structure for both clarity and to avoid wasting precious examination time writing lengthy descriptions.

# **Question 07**

This was a generally well answered question with the majority of students achieving full marks. Most answers focused on the first bullet point in the mark scheme. Some students gave differences based on functional differences reported from imaging studies, which were also creditworthy. The most common error on this question was muddling the function of Broca's area and Wernicke's area.

# Question 08

This question discriminated well, with the full range of marks achieved across the cohort, with six being the mean mark awarded. Most students could generally identify relevant ways of studying the brain. Higher-attaining students focused on fMRIs, EEGs, ERPs, and post-mortem examinations, describing how these could be used to study the brain and offering effective evaluation and comparison between these. Lower-attaining students discussed more general ways of studying the brain through material taught elsewhere on the specification. There was a clear breadth/depth trade off, with some students focusion. Students should be reminded of the need to select material carefully, being aware of the breadth/depth trade off and the importance of effective evaluation. There was some confusion between EEG and ERP and lower-attaining students often overly focused on ethical issues of post-mortem examinations. Encouragingly temporal and spatial resolution were used more effectively and accurately than seen in previous series.

## Section C

#### **Research Methods**

#### **Question 09**

This question was generally well answered with most students selecting the correct response. Incorrect responses were distributed across the three distractors although the most common incorrect response was C.

# **Question 10**

This question was generally not answered very successfully with very few students achieving all 3 marks. Aims, questions, correlational/null/non-directional hypotheses were frequently seen. The most common error was to give only one condition of the IV. These errors were surprisingly common and may reflect issues with remote learning and lack of practice, which were unique to the cohort in the current series.

#### **Question 11**

This question was well answered with most students identifying the correct response as D. Incorrect responses were distributed across the three distractors although A was the most common.

# **Question 12**

Most students were able to give a strength and a limitation of the sampling method, but the answers overall were very generic with only a very few students achieving full marks for explaining the strength and limitation in the context of the study described. Overall, the limitation was explained better than the strength.

#### **Question 13**

The majority of students were able to identify an appropriate strength of collecting quantitative data, but responses were often generic, with very few students being able to successfully explain the strength in the context of the study. Some students gave strengths of qualitative data, which were not creditworthy, but most showed a good understanding of the strengths of collecting quantitative data.

# **Question 14**

Students overall demonstrated a strong knowledge and understanding of debriefing and the right to withdraw but were often limited to 1 mark due to a lack of context. Those students who explained a way in which the researcher could deal with the deception involved in the study described achieved full marks for this question.

## **Question 15**

This question was generally not answered well, with most students achieving only one of the two available marks. Most students identified demand characteristics but often did not elaborate, resulting in a limited 1 mark response. Some students did not appear to have fully read the question, specifically that these responses were not analysed, as it was common to say that these additional questions will provide more detail.

#### **Question 16**

This was generally a well answered question with most students able to explain one limitation of using a rating scale. The most common reason for not achieving full marks was due to a lack of context, where students did not explain the limitation in the context of the study.

# **Question 17**

There was a real spread of marks across the cohort for this question with very few students achieving full marks. This was either due to not answering the question set (all three components) or giving inappropriate extraneous variables (such as the actual number of hours slept or individual differences). Students should be reminded when answering questions such as this to note the experimental design procedures used in the study to ensure their answers are appropriate.

#### **Question 18**

This question was not well answered with the majority of students failing to gain marks. This was mainly due to students not answering the question set, instead either explaining why an experiment would have been better or justifying what makes it a correlation. There also appeared a lot of confusion regarding causation and correlation.

#### **Question 19**

The modal mark for this question was three; students generally showed a good understanding of random sampling, however there was a full range of marks awarded across the cohort. Students often lost marks for giving a generic description as opposed to contextualising their answers to the study presented. Some students muddled random sampling with systematic or gave descriptions of stratified sampling and a few gave evaluation rather than a description of the method.

#### **Question 20**

This question differentiated well but there were many students who did not attempt the question. Those attempting the question generally did well, especially on the first bullet point of the mark scheme. Some students did not refer to the description of the study in their answers, which limited them to a maximum of two marks.

#### **Question 21**

This question differentiated well, although there was a high proportion of the cohort who did not attempt the question. Most students who produced responses, achieved all 4 marks but there were

still a lot of two-mark responses. The most common error was to use a two-tailed test and thus a critical value of 0.472.

## **Question 22**

A lot of students did not attempt this question. The majority of those who answered the question obtained full marks, although some muddled the critical value and calculated value of rho. Some students who made errors in Q21, which meant that they identified the critical value as less than the calculated value, were able to gain follow through marks.

## **Question 23**

This question was generally not well answered, with the majority of students failing to achieve any marks. Too many students did not attempt the question, either due to gaps in knowledge or timing issues. Those who attempted the question often did not seem to have learned why the 5% level should be used and/or did not understand what this meant. Students who identified the 5% level of significance being the conventional level tended to gain credit but references to Type I and Type II errors were often muddled. Less than 3% of the cohort were able to explain why the researcher used the 5% level of significance, as opposed to the 1% level, in the context of the study.

## **Question 24**

This question was not well answered with the majority of students unable to access the marks either due to not attempting the question or due to a lack of understanding of what a Type II error is. A lot of students incorrectly explained a Type II error to be an error made in the calculation. Approximately a third of the cohort were able to correctly explain what a Type II error was but failed to contextualise their answers. The small proportion of students who did understand what was meant by a Type II error and were able to explain it in the context of the study attained full marks.

#### **Question 25**

This question differentiated well. Unfortunately, too many students did not attempt this question, either due to timing issues or due to gaps in knowledge. Although the full range of marks was accessed across the cohort, the mean mark awarded for this question was 2 out of the 8 marks available. Students who had learned and understood the features of science generally attained high marks. Most students were able to apply knowledge to examples of psychological research but sometimes there were lengthy descriptions of psychological research which were poorly linked to the question. Overall knowledge and understanding of features of science was limited. Lower attaining students often described the scientific method with some psychological research but tended to lose focus and a number identified ethics as a feature of science. Replicability was the most commonly identified feature of science but often this was muddled with an assessment of reliability and validity, losing focus and not scoring well. Some students described the emergence of psychology as a science, rather than the features of science.

Whilst this is an unusual cohort, it is worth noting that overall students may need more support to learn the features of science, developing their understanding through discussion of psychological research.

# **Concluding Remarks**

The standard of answers overall was impressive, given the difficulties and uncertainty faced over the two-year period of study for this examination. Students should be congratulated for the level of independent preparation and focus in such a challenging time.

# Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results Statistics</u> page of the AQA Website.