

# A-LEVEL **PSYCHOLOGY**

7182/2 Psychology in context Report on the Examination

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#### General

The overall performance indicated that many students had acquired a lot of knowledge over the two-year course and the nature of the paper enabled students to showcase the breadth of their knowledge, with many short answer questions allowing a broad coverage of the specification. Time management was good, with very little evidence of students running out of time to complete all 27 questions posed.

The paper performed well in distinguishing between students who had merely acquired a vast amount of knowledge and those who had developed a genuine understanding of the material; with stronger students demonstrating their understanding through practical application, the ability to use their knowledge flexibly to answer questions and through extended and elaborated evaluation. Across the paper students demonstrated an impressive breadth and depth of information and extensive use of terminology but understanding appears more limited with many being unable to apply their knowledge effectively to practical scenarios or sculpt their answers to address the questions posed. Additionally, students are still wasting valuable time providing pre-prepared but unwarranted descriptions/definitions or generic evaluative points. Teachers should be encouraged to give students as much practical experience as possible, developing understanding of the specification through practical work, focussing on understanding of concepts as opposed to recall.

Despite the often negative perception of the mathematical component, the mathematical questions posed on this paper were well answered and provided a gateway to high marks rather than creating a barrier to these. Schools and colleges should ensure that all students have access to a calculator during this examination so that they are not at a disadvantage.

Poor handwriting continues to be an issue. Schools and colleges should be proactive in enabling these students to type their responses to ensure that they can be accurately interpreted by examiners.

## Section A Approaches in Psychology

## **Question 01**

This question was answered correctly by just under half of the students. The distractors worked well to distinguish those who understood the cognitive approach as opposed to those who had just learned the definition of the approach, with incorrect answers representing all the alternative choices.

## Question 02

This question was reasonably well answered, although students were generally better at explaining why schemas might not be useful, with some good examples drawn from EWT and some on negative self-schema and depression. Unfortunately, the strengths were weaker and often gave little beyond definitions.

## Question 03

This question was generally well answered with just under half of the students achieving full marks. There were very few incorrect defence mechanisms presented and application was clear, however,

explanations were sometimes limited. Teachers should remind students to explain terms fully, ie not using the term 'displace' to describe what 'displacement' means.

#### Question 04

Overall this question was well answered with some impressive responses. Students appeared to be well prepared, demonstrating good, detailed knowledge of classical and operant conditioning and of Pavlov and Skinner's research, with stronger students outlining general assumptions upon which the approach is founded. Some schools/colleges appear to be teaching all the learning approaches together rather than distinguishing between the behaviourist approach and social learning theory therefore many students incorrectly included the social learning theory in their outline of the behaviourist approach.

The comparisons given were variable. Whilst there were some excellent, well discussed and effective comparisons, weaker students exposed their limited knowledge of the approaches and terminology in the inappropriate comparisons given. A worrying number of students claimed that the biological approach does not use animals in their research and poses no ethical issues. Furthermore, some claimed the behaviourist approach focusses on free will and is subjective and unscientific in its methodology. Understanding of reductionism was often limited and nature and nurture were frequently muddled. The most successful comparisons tended to focus their discussion around determinism and comparing and contrasting explanations and treatments for phobias. Unfortunately, many students provided pre-learned essays, focussing on outlining and evaluating the approaches, as opposed to providing effective comparison. This meant that students often wasted time providing a wealth of material which lacked relevance but could have easily been rearranged to provide effective comparison.

# **Section B Biopsychology**

## **Question 05**

This question provided another opportunity to distinguish understanding as opposed to rote learning with just over half of students achieving the mark. There was generally little understanding of the divisions of the nervous system, with many relying on structural differences or muddling functional differences.

#### Question 06

This guestion was generally well answered with over 80% of students achieving full marks.

## **Question 07**

This question provided an excellent discriminator between students who could recall the process of synaptic transmission and those who genuinely understood the process. A very small number of clear and detailed responses demonstrated sound understanding, but too many students simply explained synaptic transmission instead of using their knowledge to answer the question. Many attempted to address the question but muddled terminology, such as the pre- and post-synaptic membrane, preventing them from achieving the marks. Overall, it appeared that students are learning the required knowledge and terminology but do not understand it well enough to be able to use their knowledge flexibly. Some students gave a biological explanation of why information passes in one direction within a neuron rather than between neurons, focusing on why action potentials are unidirectional, with reference to refractory periods, voltage-gated ion channels and

hyperpolarisation. Understanding of the process of synaptic transmission is an area that perhaps teachers need to look at more in the classroom and students should always be prepared to apply their knowledge to explain unfamiliar contexts.

## **Question 08**

Generally, students seemed to have secured a good knowledge of how the body responds during the fight or flight response but struggled to apply it to the real world. The explanations of the response were generally accurate and often well detailed, although frequently included or were muddled, with reactions to chronic stress. Overall, the application was less successful, with a lot of general comments such as, 'raised heartbeat would make you nervous/panic'. Many focussed on potential cognitive impairments which were more challenging to link to the way the body responds during fight or flight. Occasionally, students described why the body response would be helpful. Where application was done well, students generally referred to the problems of sweaty palms gripping the wheel, issues of feeling sick due to blood being diverted away from your digestive system and erratic movements.

#### **Question 09**

There were some excellent responses but generally this question was not answered very well. Overall, students tended to be less knowledgeable in this area, with answers focussed mainly on application, but this was not always appropriate. There was some excellent knowledge of studies but these were often inappropriately selected or not used effectively. Some students gave a lot of biological detail of endogenous pacemakers and made this relevant though entrainment. Light as an exogenous zeitgeber was generally applied well and often supported with biological knowledge of the effects of light on the production of melatonin; although some students mistakenly suggested trying to replicate daytime conditions at night time with night lights, etc. Students struggled more with temperature, suggesting the baby should be kept warm and cosy, and with social cues, which frequently led into learning / classical conditioning or focussed on tiring the baby out with activities. Discussion was the weakest element overall, with a lot of time wasted on generic evaluations and often research which could have provided excellent discussion, was simply described. Where discussion was done well, students tended to provide counterarguments of the role of endogenous pacemakers and compared contrasting research findings. Some students also effectively discussed issues with generalising from adults to babies and/or animals to humans. The best responses were those which were able to provide a sophisticated blend of application and discussion with knowledge intertwined throughout.

## **Section C Research Methods**

## **Question 10**

Generally this question was answered well, with over half of the students achieving all three marks available. The vast majority of students showed all the correct workings but many did not know what two significant figures meant, with many answers being given to two decimal places or students missing marks due to incorrect rounding up. Unfortunately, despite having all the correct workings, some students gave the wrong answer due to incorrect mental arithmetic. Students should be reminded to use a calculator to check their workings and save them time in the examination.

#### **Question 11**

Although there were some strong responses, students generally found this harder than anticipated, with nearly one third of students failing to achieve any marks. The majority of responses given were muddled or limited, achieving only 1 mark.

#### **Question 12**

This question was answered correctly by the vast majority of students.

#### Question 13

Most students understood what is meant by a pilot study, with the vast majority of students achieving at least 1 mark but only half of these students were able to provide a reason why a pilot study should be conducted in the context of the investigation, with many giving elaborated generic responses but unable to use their knowledge flexibly to apply it appropriately. Of the approximate one quarter of students achieving full marks, the most common route was to focus on whether participants would be able to recall their dreams by 9am each morning or whether the questions asked by the interviewers were clear and appropriate for gathering the necessary detail regarding dream themes.

#### Question 14

The vast majority of students were able to give an accurate description of qualitative data but less than half of these students were able to apply this to the practical scenario to gain the second mark. Many students wasted time giving generic strengths of collecting qualitative data.

#### **Question 15**

Overall, this question was poorly answered. Although over two thirds of students managed to give a description of investigator effects, it was clear that many students do not fully understand the term. Students often failed to distinguish between investigator effects and deliberate fraud with others muddling investigator effects up with demand characteristics or simply stating 'the effects of the investigators'. Application was poor with less than a third of students achieving marks for their suggestions. Most common errors were to suggest employing a blind procedure despite the stem stating that interviewers 'did not know the purpose of the study'. Students either did not read the stem material carefully enough or do not actually understand what a blind procedure is and therefore did not spot this in the stem but instead just provided a generic response to deal with issues in research.

## **Question 16**

When students understood the concept of content analysis, this was well answered; however, over one third of students failed to achieve any marks. A worrying number of students had no idea what content analysis is, with students frequently describing correlational analysis, statistical analysis, concurrent validity, descriptive statistics and even peer review in an attempt to explain how the content (data) from an experiment could be analysed. Those that understood the term generally explained how occurrences of each category could be tallied, with better students able to explain how categories would be identified from the interview data and giving appropriate examples of these. A surprisingly small number of students seemed to have a sound practical understanding of how content analysis should be conducted and teachers should be encouraged to offer further

opportunities for students to develop their understanding of content analysis through practical research.

#### **Question 17**

Following on from question 16, those students who did not know what content analysis was focussed on how reliability of experiments could be improved more generally, focussing on repeating experiments, peer review or statistically analysing the results. Those who did understand what content analysis was often demonstrated excellent knowledge, although there was some muddle between test-retest and inter-rater reliability. Unfortunately some responses were poorly focussed, concentrating on how reliability can be ensured rather than assessed.

#### **Question 18**

This question was well answered with the vast majority of students achieving full marks. Those students who lost marks generally lost them due to not answering the question posed, with students working out friendly rather than aggressive dreams or trying to calculate the number of males opposed to number of dreams or assuming that 375 dreams were classified as friendly as opposed to including social interactions. There were a small number of students who provided the right workings but gave the wrong answer, wasting valuable time unsuccessfully calculating the answer by hand. Students need to take care when reading questions and data given in tables and should use a calculator to check their answers to avoid losing unnecessary marks.

#### **Question 19**

This question was generally answered well with over three quarters of students achieving at least three marks. Most commonly students lost marks for not giving both conditions of the IV in their titles or referring incorrectly to histograms or for having the bars touching. Teachers should make students aware that with discontinuous/discrete data bars should not be touching on a graph.

## **Question 20**

This question was generally quite poorly answered. Although many students could gain some credit for providing detail from the study and/or giving ethical issues, few were able to demonstrate sound understanding of the requirements of a practical consent form with many not referring to consent at all. Ethical issues were generally covered reasonably well and were the strongest of the three elements, whilst format/style was the weakest and was often inappropriate (eg 'You will', or 'You must', or 'You have taken part'). Although there were some excellent responses, generally it appeared that the students had not really thought about the nature of giving informed consent, with sparse experimental detail and the incorrect tone used, often reading more like a brief/debrief from or a legal disclaimer. This is perhaps an area that schools/colleges could look at in more detail.

## **Question 21**

Despite many students showing an understanding of directional hypothesis, just less than half failed to achieve any marks, mainly due to a focus on horror films leading to more nightmares with no reference to the romantic comedy condition. Additionally, many students failed to fully operationalise the variables and some struggled to write an appropriate hypothesis for a repeated measures design, employing a writing frame for an independent measures design.

#### Question 22

Most students identified individual differences as a reason to use a repeated measures design but only about half of these students managed to clearly link their reason to the experiment. Surprisingly, there was some confusion over the term 'repeated measures', with some students focussing their answers on reliability and others on order effects. Responses to this question again suggest that students need to gain more practical experience of designing and conducting experiments as part of their course, rather than focussing on theoretical learning of these concepts.

## **Question 23**

This question offered a great opportunity to distinguish genuine understanding of reasoning behind the use of counterbalancing as opposed to whether students had merely rote learned what it is and why it is used. Overall, there appeared very little understanding with approximately half of students failing to achieve any marks and approximately one tenth of students accessing both marks. Most students achieving marks identified the issue of order effects but application to the experiment was limited, with many rote learned, inappropriate responses such as boredom/tiredness given rather than engaging with this study.

## **Question 24**

This question was generally well answered with over half of the students accessing all 3 marks. Generally, answers referring to a hat/container were more successful than those involving a random number generator/computer, as these responses often failed to fully describe the process.

## **Question 25**

Overall, students were able to answer this question well, although understanding of mean scores was generally better than standard deviation. It appeared that students often understood the data but failed to appropriately justify their suggestions, often simply restating information given in the table. There were also a few costly examples of justifications given without suggestions.

## **Question 26**

This question was a good differentiator, with some excellent responses by students who clearly explained what 'significant at p<0.05' meant and successfully managed to do so in the context of the experiment. Weaker students generally gave a rote learned reason for why psychologists generally use the 5% level or failed to contextualise their response. Unfortunately, many students failed to explain that the '<0.05' sign meant **less than** 5%. Teachers should ensure that students are familiar with the mathematical symbols required by the new specification.

## **Question 27**

This question was generally not well answered. A huge range of modifications to the design of the experiment were given but unfortunately a lot of these were inappropriate, such as 'use a control group', 'use a blind procedure', 'use a repeated measures design' or 'use an independent measures design', suggesting either a lack of understanding of the reasoning for experimental design or a failure to recall the experimental protocol. Some students suggested using a matched pairs design and went on to explain effectively how this could improve validity by reducing the likelihood of participants guessing the aim of the study which would reduce demand characteristics. More commonly students justified the modified design by inappropriately

suggesting that it would avoid individual differences. Changing the sample was a common answer but it was often not clear how this would improve validity, with few being able to give more than a generic explanation. Stronger responses generally focussed on the problem of using a text message to ascertain whether a nightmare had been experienced, suggesting a questionnaire/interview to reduce the chances of participants lying or to help distinguish nightmares from unpleasant dreams.

## **Use of statistics**

Statistics used in this report may be taken from incomplete processing data. However, this data still gives a true account on how students have performed for each question.

# **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.