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Psychology A PSYA4

(Specification 2180)

Unit 4: Psychopathology, Psychology in Action and Research Methods

Report on the Examination

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Unit 4: (PSYA4) Psychopathology, Psychology in Action and Research Methods

General

There was evidence that many students had been prepared well for this examination. The overall standard was comparable to previous series and it was encouraging to see that students were managing their time more effectively, with very few failing to complete all three sections.

It is also encouraging to note that many students are scoring higher marks on research methods than in previous series, indicating that schools and colleges are preparing their students more effectively for the demands of this section of the examination. There were some impressive answers to this section, with detailed and accurate responses to many of the questions. However, some areas of research methods continue to remain problematic including hypothesis writing. Question 16 on the importance of replication demonstrated that many students have little genuine understanding of the scientific cycle of enquiry in which data is generated to test hypotheses and to support or refine theories.

Many students still struggle to apply knowledge effectively when asked to do so in the context of the topic options in Psychology in Action. On this section, effective application of knowledge is essential for reasonable marks. Evidence suggests that many students do not read questions carefully and do not use material effectively to answer them. Schools and colleges should encourage students to plan their answers in Section B especially those requiring application of knowledge.

Quality of written communication severely hampered performance in a considerable number of cases. Not only was specialist vocabulary often used inappropriately but, in many instances even the most basic English was poor. Although it was sometimes possible to infer meaning it should be stressed that the job of examiners is to assess what is actually written and not to credit what they believe the student might have meant.

Scripts were marked on paper this series but schools and colleges should still train students to present their answers clearly as this paper will be marked online in future. Some students did not number questions correctly and many ignored the instruction on the answer booklet to leave a two line space between answers. This will be problematic for students when their scripts are marked online and schools and colleges should encourage students to adhere to the instructions provided on the answer booklet.

Section A Psychopathology

In Section A, students typically demonstrated better knowledge and understanding (AO1) than analysis and evaluation (AO2/AO3) of their chosen disorders. This pattern was evident in the June 2012 examination notably on Question 03, where most students provided a range of explanations of phobic disorder in sufficient depth and detail to achieve a reasonable AO1 mark. However, the general pattern was reversed on Question 01 (therapies for schizophrenia) and Question 04 (a biological explanation of OCD). On these questions, many students struggled to provide sufficiently detailed description and were awarded a basic or rudimentary AO1 mark. This pattern applied to stronger students who were able to show impressive skills of analysis and evaluation.

Students continue to struggle with effective evaluation of explanations and treatments of their chosen disorders. Too many rely on basic methodological evaluation of research studies, without bringing out the relevance for the explanation or treatment which is the focus of the question.

Assessment of AO2/AO3 is based on understanding. The most effective approach to evaluation was found in answers that focused on the findings of research studies, and their relevance for explanations and treatments. This is the most fundamental aspect of how science works. Examiners do not expect twice as much AO2/AO3 as AO1, but material should demonstrate clear understanding, a sustained focus on the question and a line of argument to reach the higher bands AO2/AO3. Schools and colleges are reminded that IDA is not a requirement in Unit 4 but obviously effective evaluation or commentary that refers to issues, debates or approaches would be creditworthy. Generic rote learned reference to issues and debates with little relevance to the question would not gain credit.

Topic: Schizophrenia

Question 01

Schizophrenia remains the most popular option in Section A and was attempted by around 60% of students. In contrast to the usual pattern shown on Section A, many students provided insufficient descriptive detail of therapies for AO1 often achieving basic marks for this component of the question. Many students showed real lack of understanding of the nature of schizophrenia or awareness of current treatments which was worrying. The best route to good AO1 and AO2/AO3 marks was to focus on treatments which are currently used for schizophrenia (anti psychotic drugs and CBT) and to include appropriate reference to outcomes studies.

Many students focused on drug therapy and there is evidence that some schools and colleges are teaching this area well, with impressive detail regarding modes of action of conventional and atypical anti psychotics. Weaker students simply named different types of drugs with little reference to mode of action which achieved basic AO1 credit.

Students who selected ECT or psychosurgery were less successful in both description and evaluation of the techniques. Descriptions were largely generic, often adding little detail beyond that covered at AS. Such descriptions gained basic or rudimentary AO1 credit. Many students appeared to have little appreciation that ECT and psychosurgery have been largely abandoned as a treatment for schizophrenia, except under very rare conditions (eg treatment of severe catatonic states by ECT).

The description of the psychological therapies was also mixed in quality. There were a range of options for students to choose from and most focused on applications of CBT and its derivatives such as coping strategy enhancement or family based interventions. Better answers shaped descriptions of CBT specifically to the symptoms of schizophrenia (eg logical disputing to challenge delusional beliefs). Weaker students provided generic descriptions of CBT with little attempt to apply these to the unique symptoms/features of schizophrenia and were awarded basic marks.

Students who selected psychodynamic therapies were less successful in both their description and evaluation of these techniques. Descriptions were largely generic, often adding little detail beyond that covered at AS with little understanding that psychodynamic therapies are no longer considered generally suitable for schizophrenia or recommended by NICE. This approach gained rudimentary AO1 credit. Many became sidetracked into generic evaluations of psychodynamics, losing the focus on therapy.

The AO2 tended to be more thorough on the biological therapies and there were some useful discussions of outcomes research of different generations of anti-psychotics. In better answers, evaluation was clearly organised around three main areas, appropriateness, effectiveness and ethical issues. Weaker students often struggled to get beyond the level and type of evaluation required at AS level when discussing drug treatments. Many made statements, for example regarding side effects or costs of treatment that were imprecise and lacked elaboration or evidence. Weaker students showed little realisation that treatment is free at the point of delivery in the UK. Statements of this nature are classed as basic or rudimentary commentary and attract minimal credit. Outcome studies were few and far between in Question 01. Students should be encouraged to include outcomes data when discussing treatments on all topics for Section A.

Topic: Depression

Question 02

Question 02 required students to discuss biological explanations of depression. In general, students seemed reasonably well prepared for this question with most answers focusing on the role of genetic and biochemical factors. Some schools and colleges had prepared students to cover the roles of stress hormones (cortisol) and/female hormones in depression and both were used to good effect here. Better students were able to link biological explanations together or to consider the possible evolutionary origins of depression which provided some effective and high level commentary.

Some students described psychological explanations and others attempted to use the diathesis stress explanation as an alternative to genetic explanations. These did not gain AO1 credit. There were more cases of partial performance on this question than on Question 01.

The evaluation was variable as with Question 01. Better answers included a range of research evidence in support of genetic or biochemical claims. Stronger students also made good use of the effectiveness of therapies based on biological explanations to consider the applications of biological model. However weaker students still tend to lose sight of the question and fail to show the relevance of outcomes research to biological explanations of depression. Weaker students continue to engage in basic methodological evaluation, notably of twin studies with comments focusing on the lack of 100% concordance rates or the implications of shared environments, without making these relevant to the explanation. This approach gains basic credit. Weaker students also relied extensively on references to issues and debates which had been largely rote learnt and presented with little regard for their relevance. The concept of free-will was almost always used inappropriately.

Topic: Phobic Disorders

Question 03

Question 03 required students to discuss explanations of phobic disorders. Students were free to choose any explanations and answers demonstrated a wide range of different accounts, encompassing biological, behavioural, cognitive and psychodynamic explanations. An important challenge for students in questions of this nature is to balance the need for breath and depth which is required for top band marks. Stronger students managed this appropriately by providing sufficient depth about a couple of explanations then using others wisely as evaluative commentary. Weaker students tended to describe every explanation that they were aware of: this allowed them to access reasonable marks or above for AO1 as the answers demonstrated breadth but this was often at the expense of detailed and effective AO2/AO3.

The best answers were often structured around one biological and one psychological explanation for phobic disorders both covered in relative depth, which opened up the way for some interesting AO2/AO3 commentary. Comparison of explanations can be an effective way for stronger students to show their critical understanding. Weaker students also became sidetracked into the case study of Little Hans when considering the psychodynamic explanation of phobias often producing limited methodological commentary which added little to the evaluation of the explanation.

Topic: Obsessive Compulsive Disorder

Question 04

Students were required to outline one biological explanation of OCD. The most popular choice tended to be the genetic account and these answers were of mixed quality with many students failing to provide sufficient AO1 description. Those who were able to comment on the role of specific genes (eg sapap3) fared better. Students who chose to focus on biochemical or neuroanotomical factors often provided impressively detailed accounts of the role of the OFC and basal ganglia abnormalities which were sometimes in excess of what was required for the four marks available.

As genetics was the most popular choice, the standard evaluation tended to include the difficulty of disentangling genetic and environmental factors in twin studies. Many weaker students did not use material effectively to comment on the implications for the genetic explanation of OCD. Students who covered biochemical/neuroanatomical explanations were generally better equipped to evaluate these effectively, with reference to relevant research.

Question 05

Students were required to outline one or more therapies for OCD and were free to choose from biological and/or psychological treatments or a combination of both. The most popular choices were drug therapy, psychosurgery and exposure with ritual/response prevention (ERP) and CBT. The main issue as with Question 01 was shaping psychological therapies to OCD rather than providing a generic description. Those who chose ERP shaped their answer more effectively than CBT in general as this therapy is closely aligned to OCD. There were some impressive answers focusing on more recent biological treatments including transcranial magnetic stimulation (TMS) and cingulotomy.

As with Question 02, the open nature of the question meant that some weaker students went overboard with AO1, responding to the injunction by providing three or even four therapies for OCD. This was advantageous for AO1 credit but often led to weaker AO2/AO3 marks, as the resultant commentary lacked the depth and detailed required to access higher bands.

As with Question 04, AO2/AO3 commentary and evaluation was somewhat superficial and basic in many cases. Weaker students often struggled to get beyond AS type evaluation especially when discussing drug treatments. Many made claims (for example regarding side effects) that were imprecise and lacked elaboration or evidence. The lack of outcomes data was notable again here. Students should be encouraged to include outcomes data when discussing treatments on all topics for Section A.

Section B Psychology in Action

There is clear evidence that students are using the mark allocation as a guide to how much to write which is encouraging. However, students still need to be reminded that Section B is the applied section and they must be prepared to apply their knowledge to the demands of the question, rather than merely describe what they know. This was evident in Question 07 and which asked students to apply knowledge of the effectiveness of television persuasion to the scenario of marketing a new perfume to a specific group. Many students ignored the details supplied and produced material of peripheral relevance, for example on the role of fear in advertising or the use of advertisements in cinemas or magazines rather than television. Schools and colleges should encourage students to plan their answers to application questions.

Commentary/evaluation on many answers were still weak with many students struggling to get out of the basic band. Much of this comes down to the use of rote learned methodological evaluation of research studies. Few students appear to apply their methodological knowledge in Section B, despite often showing understanding of potentially relevant issues in Section C. Many students continue to assume that evaluation involves purely negative commentary and very few point out why psychologists carry out experiments in particular ways (ie strengths) in order to establish cause and effect.

Topic: Media Psychology

Question 06

Most students were reasonably well prepared for this question which required description and evaluation of research into media influences on pro-social behaviour. There were different routes for students to take, for example focusing on explanations of media influence (social learning theory) and/or research studies. Weaker students presented generic accounts of social learning theory but failed to focus the description on the learning of take over pro-social behaviour from media models. A small number presented Bandura's Bobo doll study and stated the findings would also apply to pro-social behaviour. Such answers did not achieve credit.

The majority of students were able to describe at least one study with Sprafkin's 'Lassie' study being cited in most instances. Studies by Baron et al (1979) Rosenkoetter (1999) and Johnston & Ettema (1982) were also used to good effect. Students who chose to describe Mueller's work on desensitisation and compassion fatigue were often confused about the implications for pro-social behaviour. The distinction between good and excellent description was that stronger students explicitly linked back to pro-social behaviour throughout and specified what exactly the pro-social behaviour was in the findings. Weaker answers merely referred to "higher pro-social behaviour", without demonstrating knowledge of what form this took (co-operation etc).

Evaluation was of mixed quality with many students achieving basic marks. Commentary/evaluation were often of poor quality and appeared to have been rote learned, for example, one liners on issues and debates or citing individual differences as a critical point in Sprafkin's 'Lassie' study with little apparent appreciation of random allocation to experimental conditions. Students who could discuss the challenges of assessing the longer term impacts of pro-social models in experimental work or those who engaged in a consideration of developmental differences in response to pro social models were rewarded.

Question 07

The application aspect of this question proved challenging for most students. Many found it difficult to provide appropriate advice and/or justify their advice with reference to relevant research. Weaker students simply described potentially relevant models or studies (eg the Hovland Yale model or the ELM) others provided relevant suggestions but provided little by way of justification. A third group provided both elements of the answer but did not link advice and justification together. These approaches achieved basic credit.

The most successful students supplied a piece of clear and specific advice (for example, the use of a famous career woman in the advert) then justified this with reference to relevant research (similarity between target audience and source). Students who used the ELM model made some appropriate suggestions about the kinds of factual information which could be included in central route adverts and the sorts of images and slogans which would lead to peripheral, heuristic processing. Students who used explanations derived from areas of media studies such as the two step model or hypodermic approach were generally less successful in providing explicit advice or a clear rationale for it.

There was considerable evidence that weak students failed to read stem material thoroughly: many presented generic answers which had little relevance to perfume and career women. Some discarded the reference to television adverts and suggested using cinema adverts instead. The general principles of Section B applied starkly here: read the question and apply material to what you have been asked to do.

Question 08

Answers to this question were mixed in quality. Some centres had clearly prepared students well and answers covered a range of relevant evolutionary explanations, the most common being the global campfire/gossip theory and answers based on sexual selection, reproductive success and the prestige hypothesis. Weaker students often selected appropriate explanations but failed to show the evolutionary element of these. Some students provided anecdotal answers or answers which were not evolutionary (we look up to celebrities as role models).

Topic: The Psychology of Addictive behaviour

Question 09

This question required students to outline and evaluate the cognitive explanation of problem gambling. There was a range of potential material for students to utilise here, notably cognitive biases, expectancy, cognitive myopia and belief in high self efficacy. Some students used Aaron Beck's idea of a 'vicious cycle' but failed to emphasis the cognitive elements of this explanation sufficiently. Others described rational choice theory but found they somewhat confused when attempting to apply this framework to problem gambling.

Students who did best structured their description around the stages of gambling addiction (initiation, maintenance and relapse) presenting explanations followed by research evidence to integrate AO1 and AO2/AO3. Many students summarised relevant studies (eg Griffiths of examination of self talk in slot machine gamblers) but quite a lot were unable to draw out the implications of these findings for cognitive explanations. Stronger students did this well and were also able to draw on cognitive treatments for problem gambling appropriately. Those who could combine explanations (for example on personality factors such as impulsivity) to demonstrate why some people may become addicted were most successful.

Question 10

Students were required to describe one way in which media influences addictive behaviour. This proved challenging for many: weaker students presented anecdotal answers focused on advertising of gambling, alcohol and/or cigarettes but included little by way of evidence or psychology to inform their responses. Better students identified a clear 'way' (the influence of smoking role models in films or the impact of health education campaigns) and presented accurate descriptions of research studies which demonstrated media influence on addiction. Another effective approach was to identify banning of cigarette advertising and provide appropriate statistical data about falling rates of smoking to demonstrate the influence.

Question 11

AO2/AO3 credit was achieved by applying knowledge of interventions for addictive behaviour to the scenario provided (Kerry). The scenario included a range of factors for students to choose from including withdrawal symptoms, lack of self-belief/efficacy and the role played by smoking friends and co-workers. Students could achieve credit by covering all of these in less detail or a couple of factors in greater detail.

Many students focused on biological interventions to target withdrawal symptoms, although they often did little to justify why these might be effective. Other popular approaches included cognitive behavioural interventions, doctor's advice and the NHS quit line. Some students focused on public health interventions. One common example of this was to give the smoking ban as an example of a public health intervention, which could potentially help 'Kerry' – but showed little awareness that this has been in place for 5 years. Others described Ajzen's Theory of Planned Behaviour at length but struggled to identify a clear intervention as the question required (for example developing self-efficacy). General descriptions of TPB without application were classed as rudimentary.

As ever, application and good psychology was key to higher marks. The most successful students were those who identified one of the cues in the scenario, (withdrawal symptoms) went on to link this to an appropriate intervention (nicotine patches or gum) and explained how and why this might be useful for 'Kerry' with reference to relevant research findings. Those students who focused clearly on what they were asked to do and who provided detailed evidence justifying their suggestions scored highly.

Topic: Anomalistic Psychology

Question 12

This question required students to describe one method which has been used to study psychokinesis. Stronger students focused on more scientific methods using electronic take over coin-flippers which were described in sufficient detail to produce an effective response. Those who relied on descriptions of observations or case studies of psychokinesis were less successful in describing the methodology in enough detail to gain high marks. Another common problem here was becoming sidetracked into results of studies of PK. Very weak students simply defined PK in several different ways.

Question 13

This question required students to use their knowledge of the psychology of coincidence to explain the experience in the stem in which a dream coincided with a letter from a relative. Stronger answers selected relevant explanations such as the law of large numbers or probability misjudgement and applied these to explain the situation (eg large numbers of dreams every night make it likely that some will coincide with similar real life events). Some students identified appropriate explanations but in describing these lost sight of the scenario and failed to apply knowledge. The weakest students found this difficult and simply identified the two coincidental events with little explanation.

Question 14

In this question, AO2/AO3 credit was awarded for a discussion of personality factors which might contribute to Harry's interpretation of events as demonstrating psychic powers. Most answers identified some relevant personality factors such as neuroticism, extroversion, creativity or sensation seeking. More successful students were able to link these to the example in the scenario and explain why beliefs in the paranormal might be linked to creativity or neuroticism. Weaker students simply identified or described personality factors with little attempt to apply them to the example. Those who provided research evidence to inform the discussion once again scored better.

Question 15

AO1 credit was awarded for descriptions of research (theories or studies) of out-of-body experiences (OBE's) and/or near-death experiences (NDE's). Well informed answers drew on an impressive range of research studies including Ehrsson, Ring and Blanke along with presenting relevant biological explanations. Weaker students appeared to have little material at their finger tips and often relied on summaries of the common elements of NDE's or OBE's achieving basic credit. Students who relied on case studies of NDE's and OBE's also received basic credit.

Students achieved AO2/AO3 credit for discussion of the research findings presented. This was more problematic with some basic methodological evaluation such as the difficulty in studying such phenomena and the relatively small sample sizes. Students who had covered some of the more recent scientific studies such as Ehrsson rarely included positive commentary on the strengths of experimental/simulation approaches which was a pity. Points were rarely elaborated sufficiently to achieve marks above basic and there were very few answers scoring highly on the AO2/AO3 evaluation of research.

Section C Psychological Research and Scientific Method

Question 16

This question was problematic for the majority of students with an average mark of 2/5 and only about 15% achieving 4 or 5 marks. Whilst most were able to provide some definition of replicability, few were able to explain in any detail why replication is an important part of the research process. Weaker students asserted that replication means that a study is reliable and/or valid. Stronger students contextualised replication in a discussion of the scientific method and referred to the importance of repeating studies to check for methodological flaws or investigator biases and some considered the importance of replication in supporting or refuting theories. Those who were able to provide a clear overview of the scientific process fared best.

Question 17

Hypothesis writing continues to be problematic for many students, despite the requirement to do this at AS level. Around 40% of students achieved zero marks on Question 17, having mistakenly written a directional hypothesis or one which predicted a difference between mathematical ability and musical ability as opposed to a relationship. Many responses lacked clarity or failed to operationalise the variables sufficiently. The best answers were concisely and clearly worded such as "There is a correlation (relationship) between pupils scores on a test of mathematical ability and their scores on a test of musical ability", which achieved the full 3 marks.

Question 18

This question was answered well, with most students scoring two or all three marks. Weaker students were able to spot the test was based on a subjective judgement and some also made the point that singing was a poor measure of all round musical ability. Stronger students identified the lack of control (different choices of song) and were able to link this appropriately to investigator bias. Some students also made the point that the test lacked validity as it had not been standardised.

Question 19

There was a broad range of answers to Question 19 and about 40% of students achieved no marks at all. Some confused reliability with validity, suggesting various methods such as comparing the scores with another measure of maths ability. Few contextualised this by identifying alternate forms which would have been creditworthy. Others made reference to running a pilot study which received no marks.

The remaining 60% had some idea of ways of assessing reliability of the maths test, the most common methods being test-retest and split-half. Some used inter-rater reliability appropriately suggesting that two separate markers could be used for the maths test: others became sidetracked into assuming that the study was observational. Stronger students were able to explain two or three methods of checking reliability in reasonable detail.

Question 20

This straightforward question on a random sample caught out quite a few students. Most were able to achieve 1 mark by referring to the method as being likely to yield a more representative sample. The weakest students simply defined random sample and went no further.

Question 21

This question required students to draw a scatter graph to display the data. About half achieved all three marks here. Many students failed to gain full marks by inaccurate or missing labels or title. About one third of students drew an incorrect graph, the most common error being to draw a bar chart.

Question 22

Most students were able to make some commentary on the generally negative correlation shown in the graph and table. Better students noted the presence of two outliers which weakened the overall strength of the relationship and some commented on the impact of outliers in a small sample. A small number of students made a rough calculation of Rs which was impressive but unnecessary to gain full marks.

Question 23

This question had a range of answers from students that covered marks from 0-10. The mark scheme allowed students to argue for different ways of designing the experiment (independent measures or matched pairs) and of generating a sample (volunteer or random selection from the two groups) provided these were workable and justified. Some common errors included:

- suggesting an inappropriate design (repeated measures) which did not take account of the information relating to left and right handers
- suggesting a sampling method but not explaining how it would yield an appropriate sample of left and right handers
- assuming that a maths test also needed to be completed (ie incorrect IV)
- failing to provide any procedural information
- producing a debrief which was not suitable to be read out to participants
- providing standardised instructions and claiming they were a debrief.

Some schools and colleges had clearly prepared their students well and many showed an impressive understanding of experimental design. Others struggled with the question and/or, failed to read the instructions and therefore gained very few marks. Once again, advice to teachers is: to do practical work. It was clear that some students were very familiar with designing experiments and they had a strong advantage here.

Question 24

This question required students to follow through their design from Question 23 and give some indication of how the data would be recorded and analysed. Most managed to sketch an appropriate table to record data, although a few misread the question and produced a summary table. Some students were able to follow through their design/data type with an appropriate test which could have been Mann Whitney (independent design) or Wilxocon (matched pairs). Students who had collected nominal data or recorded data in nominal form were credited if they suggested chi square to analyse it.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the Results Statistics page of the AQA Website: http://www.aqa.org.uk/over/stat.html

UMS conversion calculator www.aqa.org.uk/umsconversion