General

The majority of students seemed to have prepared for the examination and could present at least some relevant information. Very few blanks spaces were noted and there was not much evidence that students had run out of time, except for some very brief responses to the final 8-mark questions. With an entry of over 50,000 it is hardly surprising that there were some very able students who scored marks at the top end of the distribution. Such well-informed and well-focused answers were a true pleasure to read.

Extended writing continues to present a challenge for the many students who struggle to produce coherent sentences, to the extent that they were frequently unable to give a sensible account of information they had learned. In such cases, it is difficult to know how to assess fairly, but, in the end, examiners can only assess what is written; sadly, many students could have done so much more with their material if the sentences were clear and arguments were cogent. In the same vein, use of specialist terminology presented a huge challenge for many, with frequent misuse of terms, particularly reductionism.

As in previous series, students did not always look carefully at the commands in the question. Consequently, time was sometimes wasted on irrelevant material, for example in the 8-mark application questions in Section D, where many students included evaluation for which there was no credit.

Any aspect of research methods could be assessed in any section on Paper 3 and it was heartening to see that most students seemed unfazed by these questions, despite that fact that some were quite searching. In general, research methods questions were sensibly attempted and seemed to discriminate between those who simply knew the material and those who could apply their research methods knowledge in a novel situation.

The same topics continue to be popular, although slightly more Cognition and development answers were seen in Section B than in previous series. Eating behaviour remains the least popular topic. Although not always the case, there was a tendency to find that students covering the less popular topics produced answers that showed strong knowledge and understanding, possibly because extra time and effort had gone into gathering information and producing teaching materials.

More than ever this year, scripts were referred through the examining hierarchy as ‘indecipherable’ and on the worst of these it was virtually impossible to accurately assess the detail of what was written. Such scripts are marked to the best of an examiner’s ability but it is highly likely that detailed knowledge or the exact meaning of an argument is either missed or misinterpreted. Centres are advised to look carefully at their students’ handwriting and if there is a possibility that examiners would find the handwriting very difficult to read, then a student should be advised to use a word processor or a scribe.
Section A

Issues and debates

Question 01

Answers were often vague or referred simply to ethical issues. More effective responses were those that noted how the outcome of such research might have consequences in the form of change in attitude or behaviour towards the group under investigation or for the population more generally. Vague definitions were often saved by use of an explicit and well-developed example.

Question 02

Although something on paradigms might have been anticipated in this third examination series, many students seemed quite unprepared by this question and it was often very badly done, with few answers scoring above Level 1. Many responses showed absolutely no understanding of what a paradigm is and simply referred to people's ideas or beliefs shifting over time, as could have been gleaned from reading the stem. Such non-specific answers amounted to little more than a reiteration of the stem. Occasionally, students gained marks when they noted how the focus on cognitive and biological factors may have occurred because of technological developments in science. It was rare indeed to see any reference to a scientific revolution.

Question 03

The modal mark on this question was 1. Most students identified C as correct, with A and E the most common wrong answers.

Question 04

Given that a nature-nurture question has not appeared as an extended writing question before, students might have been expected to have been better prepared. In fact, answers to this question were generally very disappointing with marks often limited to Level 2 because of basic misunderstanding. The main problem seems to have been a complete lack of understanding of the concept of ‘a debate’. This was evident right at the start of the vast majority of answers where paragraphs would typically begin with ‘The nature debate argues that…’ or, ‘According to the nurture debate …’. Similar problems arose where attempts at discussion included phrases such as, ‘One strength of the nature debate is…’ or ‘One criticism of the nurture debate is…’ Inevitably it was quite hard to award much credit for such answers because the sentences did not make a great deal of sense. Further problems arose for students who offered an ‘approaches’ answer, describing and evaluating the biological and learning approaches in turn, with hardly any reference to nature or nurture. Not surprisingly, focus on treatments was not usually successful, since the debate is really about the origins of behaviour. A relatively small number of competent students recognised the complexities of the debate and referred to constructivism, niche picking and the reciprocal effects of nature and nurture.
Section B

Relationships

Question 05

Answers to this question varied in terms of depth of understanding, although most were successful to some degree. Less effective responses offered a free-standing explanation of anisogamy. This was then followed by simplistic and inadequate explanations of intra- and inter-sexual selection. A disappointing number of students merely referenced ‘quantity over quality’ and ‘quality over quantity’, explaining how men sow their seed liberally and women are just interested in money and a nice house. More able students were able to explain how intra-sexual selection involves the evolution of traits to allow for better competition and inter-sexual selection involves the evolution of traits to increase attractiveness. A significant number of students failed to notice the discuss command and presented wholly descriptive answers.

Question 06

This was generally well done, particularly the descriptive element, although quite a number of students confused social exchange theory with equity. Many listed the four stages (sampling, bargaining etc), but relatively few elaborated their description with detailed explanation of how rewards and costs are involved in the four stages. Comparison level (CL) was sometimes confused with comparison level for alternatives (CAlt). A small minority seemed to misunderstand the question as one about social exchange in the form of social interactions, presenting detailed answers on self-disclosure which could gain no credit. Answers that were generally on the right track sometimes scored limited credit because evaluation was confined to a list of weak or generic points.

Gender

Question 07

Most students could describe Freud’s theory of the Oedipus complex, although not all confined their description to the development of gender in boys. Descriptions varied in sophistication and use of appropriate terminology as might have been expected; even very good descriptions that included reference to identification and internalisation sometimes omitted an explicit link to gender development. Discussions were often limited to ‘the use of a single case study’ or general points about falsifiability. Comments about how the theory does not explain female gender development gained no credit as the question only asked about boys. The most effective discussions were those which explored the problems with the theory specifically as it explains development of male identity. A significant number of students failed to notice the ‘discuss’ command and presented wholly descriptive answers.

Question 08

Descriptions of Kohlberg’s three stages tended to be mostly effective although some students mixed up the names. Less effective answers had descriptions of each stage that did not pick out the most salient distinguishing feature of the stage and thus rendered the stages indistinguishable. As an example, students might say how in the stability stage children cannot understand that gender stays the same even though clothes/hairstyles change (true, but not the most obvious feature of that stage) and then gave the same description for the constancy stage. The Slaby and
Frey research featured in most evaluations although some students could have answered more effectively if they had fully explained how the results supported the theory.

Cognition and development

Question 09

There were some detailed and well-informed responses to this question which were supported with references to evidence and clearly linked to social cognition. At the other end of the scale there were answers that consisted of vague explanations of how brains/thinking enables social learning and copying. Some students who showed strong knowledge and understanding of mirror neurons made little attempt to explain their role in social cognition.

Question 10

Students who stuck to the pre-operational stage tended to do well, at least with the descriptive part of this question. They detailed the concepts of conservation (sometimes referred to as conversation or conservativism), egocentrism and class inclusion, and presented detailed descriptions of Piaget’s studies in these areas. Evaluations were not always so successful because points were often general to the whole theory rather than specific to the pre-operational stage. Having described Piaget’s conservation research, it should have been relatively easy to make a specific critical point about ‘asking the same question twice’ instead of the generic criticism, ‘language was too complicated’. An unfortunate few offered pre-prepared essays on Piaget’s entire theory, leaving examiners to extract the relevant pre-operational content.

Section C

Schizophrenia

Question 11

Most students gained 2 marks for this question. The most common answers were ‘speech poverty’ and ‘avolition’. Occasionally, students would name speech poverty but only get one mark because the outline that followed seemed more like disorganised speech which is a positive symptom.

Question 12

This question discriminated between those students who could apply their knowledge and those who just reiterated information from a test decision chart or similar. The most effective answers were the most economical ones which simply stated ‘because Mann-Whitney tests for a difference whereas Spearman’s tests for a correlation/relationship’. Some students got the right answer but took a very long time to get there because they recounted all the conditions for each test, incidentally happening upon difference and correlation along the way. Many students noted that Mann-Whitney was for differences but forget to mention that Spearman’s was for correlation, or mistakenly suggested that Spearman’s was a test of association. This confusion perhaps arose because many test decision charts have the alternate heading ‘correlation/association’. Some answers gained no credit because they focused on factors affecting choice of test that were irrelevant to the question, for example, the level of measurement or the experimental design.
Question 13

Students who recognised the problem of using a volunteer sample tended to do quite well on the question, often scoring 3 or 4 marks. Answers focusing on researcher bias gained no credit since this would not have had any bearing on generalisation. Some students completely misunderstood the situation and thought that having people with schizophrenia in one condition and people without schizophrenia in the other condition would make the study unfair (biased). Such answers missed the point that these were the two conditions of the independent variable. In such cases, the modification tended to make little sense. Occasionally, students only answered half of the question, explaining the reason for bias but omitting to suggest a modification.

Question 14

This question was rarely well-answered, although some students could explain different conceptualisations of diathesis-stress and make good use of evidence from twin and adoption research and evidence for the effectiveness of combined treatments. Answers were sometimes poorly balanced, with the emphasis on the interactionist approach to explaining and very little about treating. As with the nature-nurture question, less effective answers often treated each side of the argument separately, with an outline and evaluation of the biological explanation, followed by the same for family dysfunction and the same for treatments. A small number of students seemed unaware of the meaning of the term ‘interactionist’ and misinterpreted this as a question about how dysfunctional family/social interactions might lead to the development of schizophrenia. Occasionally, answers slipped back into nature-nurture mode giving examiners a curious sense of déjà vu.

Eating behaviour

Question 15

Most students gained two marks here, with family systems theory the most common explanation. Just occasionally, the explanation was so vague as to be unidentifiable.

Question 16

This question discriminated between those students who could apply their knowledge and those who just reiterated information from a test decision chart or similar. The most effective answers were the most economical ones which simply stated ‘because Mann-Whitney tests for a difference whereas Spearman’s tests for a correlation/relationship’. Some students got the right answer but took a very long time to get there because they recouted all the conditions for each test, incidentally happening upon difference/correlation along the way. Many students noted that Mann-Whitney was for differences but forget to mention that Spearman’s was for correlation, or mistakenly suggested that Spearman’s was a test of association. This confusion perhaps arose because many test decision charts have the alternate heading ‘correlation/association’. Some answers gained no credit because they focused on factors affecting choice of test that were irrelevant to the question, for example, the level of measurement or the experimental design.

Question 17

Students who recognised the problem of using a volunteer sample tended to do quite well on the question, often scoring 3 or 4 marks. Answers focusing on researcher bias gained no credit since this would not have had any bearing on generalisation. Some students completely misunderstood the situation and thought that having people with eating disorders in one condition and people
without eating disorders in the other condition would make the study unfair (biased). Such answers missed the point that these were the two conditions of the independent variable. In such cases, the modification tended to make little sense. Occasionally, students only answered half of the question, explaining the reason for bias but omitting to suggest a modification.

**Question 18**

Answers varied in the amount of detail. Most referred to twin studies and concordance but very few referred to specific student genes. The ventromedial hypothalamus studies using rats were often presented in some detail. Very few answers included material on the thrifty gene and evolution. Given the wording of the question, information on ghrelin and leptin was only relevant where it was linked to neural (or genetic) explanations. Some students did this very effectively, but many did not and consequently could not gain credit. Evaluations tended to mostly consist of use of evidence to support or contradict the explanations, with very few students offering comparison with psychological explanations or broader comment on implications.

**Stress**

**Question 19**

Most students could name either beta-blockers or benzodiazepines. As the question asked for naming, ‘BZs’ was not accepted. The majority of answers included some brief outline of how the drug functions, either referring to GABA action or adrenaline/noradrenaline action. Occasionally, the outline was a vague reference to the effect, for example, calming the nervous system, rather than the function.

**Question 20**

This question discriminated between those students who could apply their knowledge and those who just reiterated information from a test decision chart or similar. The best answers were the most economical ones which simply stated ‘because Mann-Whitney tests for a difference whereas Spearman’s tests for a correlation/relationship’. Some students got the right answer but took a very long time to get there because they recounted all the conditions for each test, incidentally happening upon difference/correlation along the way. Many students noted that Mann-Whitney was for differences but forget to mention that Spearman’s was for correlation, or mistakenly suggested that Spearman’s was a test of association. This confusion perhaps arose because many test decision charts have the alternate heading ‘correlation/association’. Some answers gained no credit because they focused on factors affecting choice of test that were irrelevant to the question, for example, the level of measurement or the experimental design.

**Question 21**

Students who recognised the problem of using a volunteer sample tended to do quite well on the question, often scoring 3 or 4 marks. Answers focusing on researcher bias gained no credit since this would not have had any bearing on generalisation. Some students completely misunderstood the situation and thought that having people with stress in one condition and people without stress in the other condition would make the study unfair (biased). Such answers missed the point that these were the two conditions of the independent variable. In such cases, the modification tended to make little sense. Occasionally, students only answered half of the question, explaining the reason for bias but omitting to suggest a modification.
Question 22

Although most answers showed sound knowledge of Friedman and Rosenman's personality types, and specifically the link between Type A and CHD (coronary heart disease), students often omitted to make any explicit link to stress, which rather detracted from the answer. Providing there was something in the answer that recognised that CHD can be related to stress then that gave a link to the question. Totally free-standing descriptions of the three personality types gained limited credit. On the other hand, hardiness was usually explicitly linked to stress, especially where students explained in detail the effects of each of the three 'Cs'. Evaluation was mostly focused on the use of evidence, but also often covered the impossibility of establishing causality and the relative importance of other variables.

Section D

Aggression

Question 23

This question discriminated well, testing whether students really understood the problem associated with the use of same materials twice in a repeated design. Some students saw the problem straightaway and began their answer by referring clearly to how using the same images a second time might lead to demand characteristics and/or order effects. More able students then went on to explain how it would be necessary to use a different set of images in the after condition. Only in the most effective answers did students explain how it would be important to match the two sets of images for negative content to avoid the introduction of a confounding variable. Many students were unable to comprehend the problem and suggested using a set of positive images as well, which would have ruined the investigation by introducing another variable. As in the case of the earlier question on bias, some students failed to attempt to both parts of the question.

Question 24

This was another discriminating question and one which nicely illustrates the sometimes blurred distinction between knowledge and understanding. It was evident that many students who could probably calculate and define the median became confused when required to apply their knowledge to the example. More able students often drew a diagram with 23 in the middle and numbered cases either side, concluding that 23 would be the 8<sup>th</sup> score and therefore 7 people would score less than the median. Various other ways of reaching the same conclusion were credited. One successful approach was the use of a formula to subtract the median score (1 score) from the total number of scores (15 scores) to give 14 scores which, divided by 2, would give the number of scores on either side. Many unsuccessful students attempted calculations using any or all available numbers (15, 23, 40), and lots of other numbers that were not available, to yield an impressive variety of incorrect and implausible answers. The mark scheme awarded separate credit for understanding the symbol and a good number of students managed to gain credit for this even though their answer was incorrect. Conversely, some students who got the correct answer did not get credit for the symbol because they said ‘greater’ or ‘more’. In only a handful of cases did students recognise that we could only be certain of the answer because we were told that all 15 scores were different. Several students did not attempt this question or left it until the end of the paper.
Question 25

Many students were well-prepared for this question, giving detailed accounts of the nature of fixed action patterns then applying the key features (e.g., universality, sign stimulus, ritualised nature) effectively to the stem. Less effective answers recounted Tinbergen’s research or focused on the purpose of fixed action patterns rather than their nature. In many of the less effective responses, students made anthropomorphic references, for example, noting how the fish might ‘recognise’ each other, ‘want’ to frighten the other fish and ‘feel’ angry. Quite frequently answers included evaluation/discussion which was not creditworthy.

Question 26

This question was often poorly answered with a fair number of students confusing dispositional and situational explanations. Even where there was understanding of the dispositional explanation, descriptive content was often weak or anecdotal. Many answers indicated that, for most students, the dispositional explanation is synonymous with the importation model and examiners took a broad view on what constitutes disposition. Very few answers included evidence and some that did made inappropriate use of evidence that would normally be used to support situational explanations.

Forensic psychology

Question 27

This question discriminated well, testing whether students really understood the problem associated with the use of same materials twice in a repeated design. Some students saw the problem straightaway and began their answer by referring clearly to how using the same images a second time might lead to demand characteristics and/or order effects. More able students then went on to explain how it would be necessary to use a different set of images in the after condition. Only in the most effective answers did students explain how it would be important to match the two sets of images for negative content to avoid the introduction of a confounding variable. Many students were unable to comprehend the problem and suggested using a set of positive images as well, which would have ruined the investigation by introducing another variable. As in the case of the earlier question on bias, some students failed to attempt to both parts of the question.

Question 28

This was another discriminating question and one which nicely illustrates the sometimes blurred distinction between knowledge and understanding. It was evident that many students who could probably calculate and define the median became confused when required to apply their knowledge to the example. More able students often drew a diagram with 23 in the middle and numbered cases either side, concluding that 23 would be the 8th score and therefore 7 people would score less than the median. Various other ways of reaching the same conclusion were credited. One successful approach was the use of a formula to subtract the median score (1 score) from the total number of scores (15 scores) to give 14 scores which, divided by 2, would give the number of scores on either side. Many unsuccessful students attempted calculations using any or all available numbers (15, 23, 40), and lots of other numbers that were not available, to yield an impressive variety of incorrect and implausible answers. The mark scheme awarded separate credit for understanding the symbol and a good number of students managed to gain credit for this even though their answer was incorrect. Conversely, some students who got the correct answer did not get credit for the symbol because they said ‘greater’ or ‘more’. In only a handful of cases
did students recognise that we could only be certain of the answer because we were told that all 15 scores were different. Several students did not attempt this question or left it until the end of the paper.

**Question 29**

This question was often poorly answered, with many responses giving vague or anecdotal accounts of how growing up in a problem area or difficult family circumstances might lead to imitation and modelling of criminal behaviour. Many answers showed very little knowledge that was specific to differential association theory and appeared to be based simply on social learning theory. Where students seemed to have no specific knowledge of differential association theory, they sometimes nevertheless attempted answers hinged on the word ‘association’ and managed to get limited credit. The more well-informed students referred to pro- and anti-crime attitudes, social norms, social acceptance, social approval and socialisation.

**Question 30**

The vast majority of answers to this question dealt with both official statistics and victim surveys. Descriptions tended to be quite limited with very little detail, for example, few students named or described specific victim surveys or referred to the techniques used to gather the information. Occasionally, descriptions of victim surveys sounded rather more like offender surveys or restorative justice interviews. Evaluations tended to be brief but covered appropriate material, with the ‘dark figure’ much in evidence.

**Addiction**

**Question 31**

This question discriminated well, testing whether students really understood the problem associated with the use of same materials twice in a repeated design. Some students saw the problem straightaway and began their answer by referring clearly to how using the same images a second time might lead to demand characteristics and/or order effects. More able students then went on to explain how it would be necessary to use a different set of images in the after condition. Only in the most effective answers did students explain how it would be important to match the two sets of images for negative content to avoid the introduction of a confounding variable. Many students were unable to comprehend the problem and suggested using a set of positive images as well, which would have ruined the investigation by introducing another variable. As in the case of the earlier question on bias, some students failed to attempt to both parts of the question.

**Question 32**

This was another discriminating question and one which nicely illustrates the sometimes blurred distinction between knowledge and understanding. It was evident that many students who could probably calculate and define the median became confused when required to apply their knowledge to the example. More able students often drew a diagram with 23 in the middle and numbered cases either side, concluding that 23 would be the 8th score and therefore 7 people would score less than the median. Various other ways of reaching the same conclusion were credited. One successful approach was the use of a formula to subtract the median score (1 score) from the total number of scores (15 scores) to give 14 scores which, divided by 2, would give the number of scores on either side. Many unsuccessful students attempted calculations using any or all available numbers (15, 23, 40), and lots of other numbers that were not available, to yield an
impressive variety of incorrect and implausible answers. The mark scheme awarded separate credit for understanding the symbol and a good number of students managed to gain credit for this even though their answer was incorrect. Conversely, some students who got the correct answer did not get credit for the symbol because they said ‘greater’ or ‘more’. In only a handful of cases did students recognise that we could only be certain of the answer because we were told that all 15 scores were different. Several students did not attempt this question or left it until the end of the paper.

**Question 33**

Answers were often well done, with detailed information about different schedules of reinforcement and their various consequences for frequency and persistence of gambling behaviour. Given the nature of the stem it was expected that most answers would focus mainly on the role of operant conditioning. However, it became evident that quite a lot of students had taken an alternative interpretation of ‘the setting of the machine’, assuming this was a reference to the location of the machine rather than the way it had been programmed to make pay-outs. Taking this alternative interpretation of ‘setting’ meant that cue reactivity could be applied to the stem and this was therefore deemed creditworthy. Very few students seemed to realise that ‘on average, after every 10th bet’ was a reference to a variable ratio schedule.

**Question 34**

This question was not usually well-answered, often being thin on content and offering only cursory evaluation. Although most students could refer to anti-social personality and impulsivity, very few responses included reference to other material, for example, Cloninger’s 3-dimensions explanation. More able students explained how the personality traits mentioned might work to increase the risk of addiction. Very few answers took the alternative stance by explaining how certain personality traits might actually help someone avoid addictive behaviours. Although the question asked about addiction in general, and thus students could have used any material from this topic area, some students had evidently seen this as linked to the previous question and confined their answer to information on gambling addiction.
Mark Ranges and Award of Grades

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