

PSYCHOLOGY

Paper 9990/11 Approaches, issues and debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study. Candidates also need to understand each approach, as listed in the syllabus, to know how each type of psychologist would try to explain behaviour.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks the question must be addressed in full. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue.

General comments

Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There was some evidence that candidates were not familiar with the new core studies that form the 9990 syllabus.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers. Appropriate examples were used from studies when the question required them and there was evidence of candidates being able to apply their knowledge of studies to novel situations, for example, writing about one similarity and one difference between two studies. This was also somewhat evident for the questions about real-life application.

Comments on specific questions

Question 1

- (a) Many candidates were able to identify the correct tool choice. Some candidates mentioned tools not used in the Yamamoto et al. study or chose other less frequently chosen tools.
- (b) Popular correct responses noted that the Ayumu attempted to look through the window. Other incorrect responses noted that Ayumu looked through the hole where the tools were passed through.
- (c) Stronger responses could clearly outline one of the conclusions from the Yamamoto et al. study. The most popular conclusion was that chimpanzees can give help with a direct request or that visual assessment was needed. Some responses appeared to focus on specific results which could not gain credit as the question was about a generic conclusion.

Question 2

- (a) Stronger responses could describe how the boy was diagnosed with his phobia of buttons. However, many responses produced the answer to question 2(b) about his classroom experience which was not creditworthy. Common correct responses focused on the use of the DSM plus noting a specific criterion for phobia diagnosis.

- (b) Stronger responses focused in the boy's classroom experience with a bowl of buttons falling on to him, indicating that he learned his phobia as a result. Some answers were very well explained, arguing clearly why this shows nurture. One common weak answer was to explain why the evidence was *not* nature rather than explaining why it was nurture. Other responses focused on his therapy which used behavioural techniques or that he was de-conditioned to not have the phobia any more.

Question 3

There were a wide range of answers here that could gain credit. Responses needed to provide some meaningful comparison to gain full credit. Popular responses tended to focus on same-sex modelling, verbal/physical aggression with a gender comparison and generic overall imitative aggressive results. Some responses focused on examples of quantitative data rather than specific results so could not gain credit. Other responses gave qualitative results rather than quantitative.

Question 4

Stronger responses directly answered the question about the recruitment of the sample with a reason why. These responses could identify that the participants were used from another study, that they were from a participant panel and that this part of the study used opportunity sampling. The explanation for why also had some strong responses about how Andrade wanted to have a sense of boredom already in the participants. Some responses appeared to confuse the recruitment process of Andrade with the study by Laney or gave a generic account of how a volunteer sample would be used, neither of which could be credited.

Question 5

- (a) Some excellent responses could clearly define diffusion of responsibility, covering many of its component ideas with examples to help elaborate on a given point. Weaker responses gave a brief definition of diffusion of responsibility then wrote about what Piliavin et al. did in their study. Candidates can improve their answers to questions like this by focusing on the term or concept that is named in the question. Questions about the background to the study require candidates to know the key concept/psychology that is being investigated in this study. This question part did not require a link to be made to the Piliavin study.
- (b) This question part did require a link to be made to the Piliavin study. Many candidates could not provide a result from the study that was evidence to show that diffusion of responsibility did not occur in this study. The correlation between group size and helping behaviour was the key result here. Other creditworthy examples included people helping before a model intervened or a cost-benefit analysis for the cane trials.

Question 6

- (a) Many candidates were able to begin their response from the point outlined in the question (after the electrodes had been fitted). Stronger responses clearly demonstrated knowledge of the procedure including falling asleep, being woken by a loud bell, being woken in REM/nREM and then being questioned about the content of any dream. The procedure has a focus on what the participant actually experienced in the study to be able to produce the results. Weaker responses focused on the results of the procedure rather than the procedure itself or were confused about how the participants were woken and then what they were asked to do.
- (b) Many candidates could identify one reason why standardisation is important. Excellent responses clearly identified a reason, explained why this reason was important and then chose an appropriate example from the study to gain maximum marks. Some responses were generic about the benefits of standardisation without any explicit link to Dement and Kleitman, which was a requirement of the question. Popular answers were about reliability and validity.

Question 7

- (a) Whilst stronger answers could identify the role that thinking and information processing has on our behaviour, these were in the minority of answers. Many responses were simplistic and sometimes tautological. Other responses wrote about applications or confused the cognitive and social approaches to psychology. Candidates need to understand what a cognitive psychologist would believe in. The main assumptions of the approach are covered in the syllabus.

- (b) Candidates need to be able to apply aspects of a study to real-life behaviour and this was only sometimes evident for this question. The stronger responses could identify how the Eyes Test might be useful to help diagnosis or how the results from the test might be useful to see what aspects of emotions an autistic individual is having difficulties with. Weaker responses tended to write about the procedure of the study without explaining how it could be useful in understanding autism. Most responses could outline one key result from the study which could be credited.
- (c) There was a range of real-world applications covered in responses to this question. Examples included social skills training at school or utilising males and females in different occupations that require different emotional needs. However, a number of responses focused on understanding and treatment of autism, a repeat of question (b), which could not be credited, one *other* application was required.

Question 8

- (a) Overall, many responses to this question gained limited credit. The majority of responses focused on what the participants were told *after* drawing lots rather than on the information Milgram provided *before* this happened. The main creditworthy point given by candidates was about knowing very little about the effects of punishment on learning. Candidates need to know all aspects of a study that are presented in the original academic paper.
- (b) Many excellent responses contained a well thought through comparison of two social approach studies. Analysis in these responses was detailed where the answer identified a similarity/difference, described what it was and then used both studies in depth to show why it was a similarity/difference. Other responses produced some brief attempt to compare or made no explicit analysis in terms of a similarity or difference to gain partial credit. The stronger responses often produced a sophisticated comparison for both the similarity and difference with evidence of a logical and coherent analysis of a component of the study (e.g. both had to use deception or both collected quantitative data) that showed the examiner why it was an important similarity/difference.

Question 9

The strongest responses evaluated the Pepperberg study in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of using animals in research. Common choices included generalisability, mundane realism, techniques to prevent demand characteristics and issues surrounding the use of animals in psychological research. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses, all in equal depth. Some responses did cover the four evaluation points but were brief or did not use the Pepperberg study as examples which meant the response gained limited credit. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief which meant the response gained limited credit. Description of the study could not be credited, evaluation is required to answer the question set.

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Paper 9990/12 Approaches, issues and debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study. Candidates also need to understand each approach, as listed in the syllabus, to know how each type of psychologist would try to explain behaviour.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks the question must be addressed in full. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue.

General comments

Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There was no evidence that candidates were not familiar with the new studies that form the 9990 syllabus. There were very few blank responses.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers. Appropriate examples were used from studies when the question required them and there was evidence of candidates being able to apply their knowledge of studies to novel situations, for example, writing about one similarity and one difference between two studies. This was also somewhat evident for the questions about real-life application.

Comments on specific questions

Question 1

- (a) Many candidates were able to state an aim of the Andrade study. The most popular was about investigating whether doodling affects concentration. Some candidates referred to other cognitive functions similar to concentration to gain credit.
- (b) There were many incorrect responses to this question. Correct responses could identify that it was about the correct *names* minus the false alarms rather than just the amount of correct *information*.
- (c) Stronger responses could clearly describe one appropriate result with a *meaningful* comparison. This tended to be about the experimental group scoring higher than the control group on this measure.

Question 2

- (a) Stronger responses could identify two features of the sample from the Canli et al. study. Popular choices were the number and sex of the participants. However, there were responses that described the procedural characteristics of the study, including that they were placed in an fMRI scanner. This example is not a feature of the sample. A feature refers to a demographic aspect of the sample, such as age range or location.

- (b) Stronger responses focused on the problem that children might feel it is difficult to keep still in an fMRI scanner, affecting the validity of findings. There was a range of ideas presented and stronger responses linked the idea to the study directly to gain the second available mark. Many candidates explained an *ethical* problem which could only gain partial credit. The question required a *methodological* problem (which can be a practical problem).

Question 3

There were a wide range of answers here that could gain credit. Stronger responses could clearly demonstrate what the boy had to complete in this phase of his therapy. However, there were many responses that focused on the imagery exposures aspect of the therapy that included imagining the buttons on him, which did not answer the question set. Answers had to focus on the behavioural exposures element of the boy's therapy. Candidates can improve their answers by underlining the key concept of the question (in this example, behavioural exposure) to ensure they are using the correct part of the study to answer the question set.

Question 4

- (a) Stronger responses could correctly identify that the model was expected to stand in the critical area and then help after 70 seconds. Some candidates confused the model with the victim and/or the participants, therefore to improve a response, candidates need to ensure that they are focusing on the correct person within the study. Common incorrect answers were about the late model or the condition of the victim.
- (b) Many responses did not focus their answer on the critical area. Many responses gave overall results based on critical and adjacent which could not be credited. There were many results that focus solely on the critical area in the original paper by Piliavin et al. and stronger responses clearly knew one of these with a meaningful comparison. Popular choices included a comparison or early and late models.

Question 5

- (a) Some excellent responses could clearly define both terms covering its component ideas with examples to help elaborate on a given point when necessary. Weaker responses gave a brief definition of either of these then wrote about what Yamamoto et al. did in their study. Candidates can improve their answers to questions like this by focusing on the term or concepts that is named in the question. Questions about the background to the study require candidates to know the key concept/psychology that is being investigated in this study. This question part did not require a link to be made to the Yamamoto et al. study.
- (b) This question part did require a link to be made to the Yamamoto et al. study. Stronger responses utilised a core result of the percentage of trials where help was given even though no juice reward would be given to the chimpanzee who selected the correct tool. Many candidates could not provide a specific finding from the study that was evidence to show that altruism or empathy was evident in the study.

Question 6

- (a) Many candidates were able to begin their response from the point outlined in the question (after meeting the stooge). Stronger responses clearly demonstrated knowledge of the procedure including the questionnaire, the types of questions used, the standardised comments and the observation of the participants' reaction. The procedure has a focus on what the participant actually experienced in the study to be able to produce the results. Weaker responses focused on the results of the procedure rather than the procedure itself or were confused about what the stooge did during this phase of the study. A minority of responses describe the procedure in the euphoria condition.
- (b) Many candidates could identify one reason why standardisation is important. Excellent responses clearly identified a reason, explained why this reason was important and then chose an appropriate example from the study to gain maximum marks. Some responses were generic about the benefits of standardisation without any explicit link to the Schachter and Singer study which was a requirement of the question. Popular answers were about reliability and validity.

Question 7

- (a) Whilst stronger answers could identify the role that conditioning and social learning has on our behaviour, these were in the minority of answers. Many responses were simplistic and sometimes tautological. Other responses wrote about applications or confused the learning and biological approaches to psychology. Candidates need to understand what a learning (behavioural) psychologist would believe in. The main assumptions of the approach are covered in the syllabus.
- (b) Candidates need to be able to apply aspects of a study to real-life behaviour and this was only sometimes evident for this question. The stronger responses could identify how the imitation of physical and verbal aggression from models could be used by parents to reduce aggressive tendencies with some very clear ideas. Weaker responses tended to write about the procedure of the study without explaining how it could be useful in reducing aggression. Most responses could outline one key result from the study which gained credit.
- (c) There were a range of real-world applications covered in responses to this question. Examples included age-related ratings on TV and computer games or using calmer models in schools. However, a number of responses focused on how it could be used for parents, a repeat of question (b), which could not be credited, one *other* application was required.

Question 8

- (a) Candidates need to know all aspects of a study that are presented in the original academic paper. Overall, there were a range of responses to this question. Stronger responses knew that the model and rival were both humans who were demonstrating the learning of same/different whilst Alex observed. Weaker responses claimed that Alex was the model and/or rival and wrote about how he was trained outside of the model/rival technique.
- (b) Many excellent responses contained a well thought through comparison of two learning approach studies. Analysis in these responses was detailed where the answer identified a similarity/difference, described what it was and then used both studies in depth to show why it was a similarity/difference. Other responses produced some brief attempt to compare or made no explicit analysis in terms of a similarity or difference to gain partial credit. The stronger responses often produced a sophisticated comparison for both the similarity and difference with evidence of a logical and coherent analysis of a component of the study (e.g. both used aspects of modelling or were both case studies) that showed the examiner why it was an important similarity/difference.

Question 9

The strongest responses evaluated the Baron-Cohen et al. study in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of self-reports. Common choices included generalisability, mundane realism, improvements from the first version and issues surrounding potential ethical violations. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses all in equal depth. Some responses did cover the four evaluation points but were brief or did not use the Baron-Cohen et al. study as examples which meant the response gained limited credit. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief which meant the response gained limited credit. Description of the study could not be credited, evaluation is required to answer the question set.

PSYCHOLOGY

Paper 9990/13 Approaches, issues and debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study. Candidates also need to understand each approach, as listed in the syllabus, to know how each type of psychologist would try to explain behaviour.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks the question must be addressed in full. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue.

General comments

Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There was no evidence that candidates were not familiar with the new studies that form the 9990 syllabus. There were very few blank responses.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers in evidence. Appropriate examples were used from studies when the question expected it and there was evidence of candidates being able to apply their knowledge of studies to novel situations, for example, writing about one similarity and one difference between two studies. This was also somewhat evident for the questions about real-life application.

Comments on specific questions

Question 1

- (a) Many candidates were able to state an aim of the Pepperberg study. The most popular response was to state that it was about investigating the concept of same/different using a parrot. Some candidates referred to results here which was not creditworthy.
- (b) Some candidates were able to identify matter as the third category. There were many incorrect responses to this question, naming categories not used in the study.
- (c) Stronger responses could clearly describe one appropriate result with a meaningful comparison. This tended to be about Alex the parrot on all-trials. Many responses did not appear to know what the 'probes' section of the study was about.

Question 2

- (a) Stronger responses could identify two features of the sample from the Laney et al. study. Popular choices were the number and sex of the participants. However, there were responses that described the procedural characteristics of the study, including that they were asked questions about asparagus. This example is not a feature of the sample. A feature refers to a demographic aspect of the sample like age range or location.

- (b) Stronger responses focused on the problem that children might not comprehend the terminology used in the study or that the participants would be children and the study is about childhood memories so validity would be reduced. There was a range of ideas presented and stronger responses linked the idea to the study directly to gain the second available mark.

Question 3

- (a) There were a wide range of answers here that could gain credit. Answers had to focus on the presentation of the images in the scanner. Stronger responses could clearly demonstrate how this was conducted in the study with good accuracy. Weaker responses tended to focus on the results of the study or another procedural element.
- (b) Stronger responses could identify a control used in the Canli et al. study, other than the way the images were presented. Some candidates named a control that was related to how the images were presented, so could not gain credit as it did not answer the question set.

Question 4

There were a wide range of results here that could gain credit. Responses needed to provide some meaningful comparison to gain full credit. Popular responses tended to focus on the frequency of tool choice. Some responses focused on examples of quantitative data rather than specific results so could not gain credit. It was clear from many responses that candidates did not appear to know that there were results per chimpanzee as given in the Yamamoto original paper and so gave behavioural observations about what the chimpanzees *could* have performed in the study for which no credit could be given.

Question 5

- (a) Some excellent responses could clearly define Theory of Mind and its component ideas with examples to help elaborate on a given point when necessary. Weaker responses gave a brief definition of either of these then wrote about what Baron-Cohen et al. did in their study. Candidates can improve their answers to questions like this by focusing on the term or concepts that is named in the question. Questions about the background to the study require candidates to know the key concept/psychology that is being investigated in this study. This question part did not require a link to be made to the Baron-Cohen et al. study.
- (b) Stronger responses outlined one result from the Eyes Test that could be linked to Theory of Mind. However, many could then not explain how that result supports the concept of Theory of Mind so these responses gained limited credit. Some responses focused on a conclusion or an aspect of the procedure, which could not be credited.

Question 6

- (a) Many candidates were able to begin their response from the points outlined in the question (between the two events). Stronger responses clearly demonstrated knowledge of the procedure including the 'electric chair', sample shock and the paste placed on the learner's wrist. The procedure has a focus on what the participant actually experienced in the study to be able to produce the results. Weaker responses focused on the results of the procedure rather than the procedure itself or gave a complete overview of the study.
- (b) Many candidates could identify one reason why standardisation is important. Excellent responses clearly identified a reason, explained why this reason was important and then chose an appropriate example from the study to gain maximum marks. Some responses were generic about the benefits of standardisation without any explicit link to Milgram which was a requirement of the question. Popular answers were about reliability and validity.

Question 7

- (a) Whilst stronger answers could identify the role that conditioning and social learning has on our behaviour, these were in the minority of answers. Many responses were simplistic and sometimes tautological. Other responses wrote about applications or confused the learning and biological approaches to psychology. Candidates need to understand what a learning (behavioural) psychologist would believe in. The main assumptions of the approach are covered in the syllabus.

- (b) Candidates need to be able to apply aspects of a study to real-life behaviour and this was only sometimes evident for this question. The stronger responses could identify how the results could be used by therapists in general to help treat phobias or for people to understand why we get phobias. Weaker responses tended to write about the procedure of the study without explaining how it could be useful in understanding phobias. Most responses could outline one key result from the study which could be credited.
- (c) There were a range of real-world applications covered in responses to this question. Examples included use at school with anxious students or in the workplace to assess feelings. However, a number of responses focused on understanding and treatment of phobias, a repeat of question (b), which could not be credited, one *other* application was required.

Question 8

- (a) Candidates need to know all aspects of a study that are presented in the original academic paper. Overall, there were a range of responses to this question. Stronger responses tended to focus on the telephone message and utensils required (e.g. pencil). Weaker responses focused on what the doodling group did whilst they were listening to the telephone message and there was evidence that the study had been misunderstood as a sizeable minority of responses stated that a telephone as used as part of the study.
- (b) Many excellent responses contained a well thought through comparison of two cognitive approach studies. Analysis in these responses was detailed where the answer identified a similarity/difference, described what it was and then used both studies in depth to show why it was a similarity/difference. Other responses produced some brief attempt to compare or made no explicit analysis in terms of a similarity or difference to gain partial credit. The stronger responses often produced a sophisticated comparison for both the similarity and difference with evidence of a logical and coherent analysis of a component of the study (e.g. both were laboratory based or that the samples were clearly different) that showed the examiner why it was an important similarity/difference.

Question 9

The strongest responses evaluated the Schachter and Singer study in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of independent measures. Common choices included ecological validity, standardisation, reliability and ethics. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses all in equal depth. Some responses did cover the four evaluation points but were brief or did not use the Schachter and Singer study as examples which meant the response scored in the lower bands. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief which meant the response could not reach the upper level of the top band in the main. Description of the study could not be credited, evaluation is required to answer the question set.

PSYCHOLOGY

Paper 9990/21 Research Methods

Key messages

- Although knowledge of research methods terms is crucial, being able to explain those terms and to apply them to situations is just as important and is generally essential to gaining more than the basic marks. The opportunity to look at examples of responses to questions which just identify or describe an appropriate term or concept in comparison to those which offer an explanation or application would help in developing this skill.
- When there is a need to link answers to the context or study this is typically explicit in questions. For example, with the use of ‘...in this study’ or including reference to part of the scenario in the question. Candidates need to be prepared for examination questions using this format and will need to practise both extracting relevant ideas and making novel suggestions based on the scenario given. The opportunity to look at examples of generic and applied responses to questions would help in developing this skill.
- As in any examination, reading the question is very important. Candidates need to consider whether the response requires, for example, a link back to the question (see point above), an example, or an original ‘creative’ idea from the candidate. This will often enable the candidate to produce a response that raises their mark above a basic level. The opportunity to look at examples of limited and elaborated responses to questions would help in developing this skill.

General comments

Candidates were able to demonstrate their knowledge of a range of aspects of research methods in this paper. Whilst some consistent problems arose, such as difficulties with operationalisation and hypothesis writing, there were also evident strong points. Candidates demonstrated a good understanding of case studies, types of experiments, factors that are important to representativeness and covert observations.

Comments on specific questions

Section A

Question 1

- (a) Those candidates who correctly identified the independent variable were mostly able to give a reason for it. Some responses incorrectly identified the variable as the dependent variable.
- (b) This question part was generally not well answered with the many candidates including a description of the DV here, even those that had correctly identified the IV in part (a).

Question 2

- (a) This question part was generally well answered. However, this was a one-mark question using the command term ‘identify’. In response to this it is acceptable to simply state the relevant word or term (in this instance ‘case study’) with no further elaboration. Many candidates gave much longer responses than required and could have more profitably used their time elsewhere. Where mistakes were made, candidates referred to an incorrect method, e.g. laboratory experiment demonstrating some understanding even if they made an incorrect choice.

- (b) This question, specifically stating 'in this study', generated many detailed but generic responses with few candidates making a link to the named study. Candidates needed to apply their answer to the study in order to gain full marks.

Question 3

- (a) There were some excellent answers here where candidates focused on the similarities between the experimental methods mentioned in the question, with those who did so often being able to give sound examples to support their responses. However, some candidates appear to have misinterpreted the question and gave similarities between the details of laboratory and field experiments they had studied, for example discussing relative sample sizes or types of data. Many candidates used the Milgram study as an example of a laboratory experiment. While the setting of this study was a laboratory, this study did not have an independent variable, and is therefore not considered a true laboratory experiment.
- (b) Responses to this question part were generally better here than for part (a), with fewer misinterpretations. Again, many candidates used the Milgram study as an example of a laboratory experiment. Candidates need to be aware that experiments always have an independent (as well as a dependent) variable.

Question 4

Some candidates had a good understanding of this term but many did not. There were candidates who referred to standard deviation in the context of a normal distribution curve. However, even here the understanding was typically poor and did not in the main result in achieving marks. Candidates in this instance would benefit from a clear, simple understanding of the nature, role, use and strengths/weaknesses of different measures of spread (and of central tendency).

Question 5

- (a) Most candidates were able to identify a suitable ethical term. Some mistakenly referred to 'deception' as an ethical guideline that was upheld.
- (b), (c) Those candidates who had chosen 'debriefing' in part (a) were generally more likely to address the 'in this study' parts of the questions, respond in context and access all marks. However, many did not address this part of the question. This problem was particularly evident when candidates chose 'confidentiality', as their response in (b) was then simply 'no names were used'.

Question 6

This question generated some very good responses through which candidates were able to show a detailed knowledge of the term 'order effects' with examples from the studies and in some cases from their own research. However, there were also a significant number of candidates who appeared not to understand the term at all. Some responses suggested a confusion between order effects and demand characteristics. Two other fairly common errors were to answer this question as if it was related to **Question 5** and tried to explain order effects in relation to the study by Laney et al. and to give an answer in terms of the 'effect of orders' in Milgram's study.

To improve their performance, candidates could have used any studies (core studies, other studies they have learned about or any study they could imagine and clearly describe to illustrate the point) to illustrate points being made, for example about fatigue effects and getting bored or tired.

Section B

Question 7

- (a) This question was generally now well answered with a high proportion of responses referring to volunteer or opportunity sampling. Those candidates who did refer to random sampling were sometimes unable to elaborate further and give details on how this would work in practice. Some responses that correctly identified random sampling then described opportunity sampling, indicating poor understanding. As with **Question 4** above, candidates in this instance would benefit from a clear, simple understanding of the nature, role, use and strengths/weaknesses of different sampling methods.
- (b) This question part was generally very well answered. Where candidates did not earn full marks this was often because their suggestion would have made the sample less rather than more representative (such as obtaining only healthy people). A small but significant proportion of candidates gave detailed answers which encompassed the content of part (c). When this was the case, the candidates often did not repeat their answer in the space for (c), where it could be credited, but gave an irrelevant response to **7(c)**.
- (c) Stronger responses were able to consider links to sleep and dreaming. Apart from those candidates described above, who knew the answer to this question but had already mistakenly provided it in response to the question above, another small but significant minority justified their biased (rather than representative) samples and proposed changing the method to explore the differences their new samples, from part (a), would generate.

Question 8

- (a) There were some good responses detailing ways to quantify 'sharing'. Other candidates seemed to have a weak understanding of the concept of 'operationalisation' and there were occasional efforts to describe an aspect of the method.
- (b) Many candidates were not able to explicitly identify the ethical problem but were able to comment in enough detail to gain partial marks.
- (c) Some candidates merely repeated the question stem without attempting any 'explanation' as required by the question. Where candidates did attempt to offer an explanation, this could often have been improved by considering that 'less' (or 'more') is a value judgment made with reference to something else, such as a baseline or, in this case, 'cats'. Such a comparison would have improved these answers.
- (d) This question part was generally well answered, with many candidates having a fair idea of what is meant by the term covert observation. A minority confused this with overt observation and others spent unnecessary time explaining how rather than why this would be done (for example, giving details of cameras or peepholes that would have been appropriate had the question asked about 'how'). One significant misunderstanding which emerged here was of 'demand characteristics'. These are features of the experimental situation that indicate to the participants the aim of the study and therefore how they might behave. Whilst animals may be affected by the presence of people, this is not similar to the complex, if unconscious, process that leads to the changes in human behaviour in response to demand characteristics.
- (e) This question part was generally not well answered, with many responses consisting of an irrelevant directional hypothesis. In addition, the responses were often muddled in terms of structure and wording. To improve performance on hypothesis-writing questions, candidates need to be able to identify variables (in the case of experimental studies) the IV and the DV and be able to insert these into a 'formula' for different types of hypotheses.

Question 9

- (a) There were many partial marks for responses here because candidates failed to elaborate, giving generic or very basic answers. To improve on these simplistic comments about the procedure, candidates need to demonstrate a link between their idea and the impact on navigation.
- (b) Again there were some generic responses here that did little more than identify a relevant term. Candidates should be aware that knowing the terms is important but that being able to explain them and to apply them to situations is just as important and is generally essential to gaining more than the basic marks.
- (c) Many responses were very sound, with some good consideration of factors relevant to the topic of investigation and some carefully considered ways in which these could be controlled. Partial marks tended to be awarded when candidates appeared not to read the question fully so their responses needed to supply a way in which the factor they had suggested could be controlled. In addition there were some common incorrect responses, such as the idea that a control would be to randomly allocate participants to conditions. This would not be possible as the conditions were different age groups (although in other situations this may be an appropriate answer, so it shows some subject knowledge). One improvement to responses would be to avoid including material that is irrelevant to the question, thus saving the candidate time. For example, in this question, good responses often additionally included a justification of why the suggested control was necessary, i.e. why the variable itself mattered to the study. Although such information may be required in questions, it was not asked for in this particular question.

Section C

Question 10

- (a) There were some good responses here, showing careful consideration of a relevant sample, some imaginative uses of a questionnaire as part of a wider study using some laboratory methods with participants playing with toys first. A small minority of candidates simply designed a laboratory experiment and did not address the requirement in the question to conduct a 'study using a questionnaire'. Even in appropriate responses, marks were sometimes limited because candidates had not considered 'how' in terms of the types of questions they would use. A minority of candidates did not mention ethics and those who did, did not tailor their consideration to particular issues of ethics in this situation (such as a consideration of whether children's thoughts are private or whether they may be distressed if they were to feel challenged about their beliefs that toys have feelings). At the top of the range, however, candidates did demonstrate awareness of such issues.

One other problem with answers to this question was a tendency in a minority of candidates to include evaluation or justification of the suggested procedure which was not required in part (a).
- (b) The question part was also generally well answered, with responses offering a consideration of weaknesses and what the consequences might be, as well as providing a solution with some elaboration, even when marks may have been limited because of a lack of detail in part (a).

PSYCHOLOGY

Paper 9990/22 Research Methods

Key messages

- Although knowledge of research methods terms is crucial, being able to explain those terms and to apply them to situations is just as important and is generally essential to gaining more than the basic marks. The opportunity to look at examples of responses to questions which just identify or describe an appropriate term or concept in comparison to those which offer an explanation or application would help in developing this skill.
- When there is a need to link answers to the context or study this is typically explicit in questions. For example, with the use of '...in this study' or including reference to part of the scenario in the question. Candidates need to be prepared for examination questions using this format and will need to practise both extracting relevant ideas and making novel suggestions based on the scenario given. The opportunity to look at examples of generic and applied responses to questions would help in developing this skill.
- As in any examination, reading the question is very important. Candidates need to consider whether the response requires, for example, a link back to the question (see point above), an example, or an original 'creative' idea from the candidate. This will often enable the candidate to produce a response that raises their mark above a basic level. The opportunity to look at examples of limited and elaborated responses to questions would help in developing this skill.

General comments

Candidates were able to demonstrate their knowledge of a variety of aspects of research methods in this paper. Whilst some consistent problems arose, such as difficulties with operationalisation, hypothesis writing and the test-retest procedure, there were also evident strong points. Candidates demonstrated a good understanding of ethical guidelines for human research, self reports and observations.

In relation to several questions, such as **1**, **2**, **7(b)**, **8(a)(ii)** and **9(c)**, it is likely that candidates would benefit from the opportunity to practise answering questions relating to independent, dependent and correlational variables in addition to questions of three types: (i) measuring a variable, (ii) controlling a variable and (iii) improving the measurement of a variable.

Comments on specific questions

Section A

Question 1

- (a) In this question part, a significant number of candidates identified independent variables other than the one referred to in the question, so the response was irrelevant. Other candidates described how the dependent variable was operationalised rather than the independent variable.
- (b) In this question part, a minority of responses focused on the ability to replicate the study, which is irrelevant, rather than how operationalisation was achieved.

Question 2

There was considerable confusion between 'control' and 'standardisation'. A control aims to minimise differences between levels of the independent variable whereas standardisation aims to minimise differences between the treatment of participants. There was also a tendency for candidates to simply describe the

procedure. Candidates could usefully consider whether the factor they are describing as a control would actually vary, for example, why would a researcher change rooms or use a different technique? If the factor would not or could not vary in the first place, it will not need controlling. Responses needed to consider factors that could vary and therefore could influence the outcome of a study as these do need to be controlled. Identifying such factors takes practice to lead to confidence in recognising appropriate variables.

Question 3

- (a) Many candidates demonstrated some understanding of a directional hypothesis but many encountered difficulties with this. Sometimes the hypothesis only related to the original study so talked about the presence of an authority figure rather than the location. Others attempted to write a correlational rather than an experimental hypothesis. Most importantly, very few responses included an operationalised dependent variable. In addition, many responses referred to only one level of the independent variable.
- (b) In this question part, as with part (a), there were a range of problems, the key one being, as with part (a) referring to only one location. This often resulted in statements which did not make sense, such as 'There will be no difference between the location and obedience'.

Question 4

- (a) Most candidates were able to identify the limitation of not including males (or left handers), but the reason *why* this made generalisability limited (that males and females might differ in emotional response or brain patterns) was often lacking.

Question 5

- (a) Many candidates performed well here, with responses describing issues with children as participants and the validity of consent. However, at times, the reasoning did not clearly relate to the ethical issue that had been stated. Candidates were able to relate their thinking to the context of study.
- (b) This question part was generally well answered, with many elaborated responses, for example offering suggestions for relevant questions that might be asked.

Question 6

Many candidates performed well (getting at least four marks), showing good knowledge of both self reports and observations as methods. However, in order for examples to support the ideas they are presenting – i.e. to be creditable they need to be more than a reference to the psychologists conducting the study. What is important is the candidate's ability to explain their point. To improve the performance of candidates in the future, it would be useful for them to compare examples of responses which merely provide examples of relevant studies and those that *use* those studies (be they core studies, other studies or any study they could be imagined and clearly described) to illustrate the points being made.

Section B

Question 7

- (a) It is crucial that candidates are aware of the difference between the guidelines that are relevant to human participants and those which specifically relate to animals, as listed in the syllabus. Where a relevant animal guideline was identified, for example 'species and strain', this was only sometimes successfully linked to the study. The use of '...in this study' indicates to candidates that they are required to contextualise their answer so generic responses cannot earn full marks. Candidates need to be prepared for examination questions using this format. In the example of 'species and strain' candidates could have applied their answer with a simply suggestion such as choosing species, or individuals, that were less likely to cause physical harm when put together.

- (b) Responses fully explaining the test-retest procedure were infrequent. Many candidates stated or described inter-observer reliability, i.e. the use of another observer. Another common error was the idea that replication was important to check the animals' behaviour was the same over time, rather than that the researcher's procedure was consistent.
- (c) Although many candidates achieved one mark here, two-mark responses were less common. The spread of one-mark answers (covering a full range of ideas, such as numerical data, not requiring interpretation and the role of Hanif's opinion) suggest that candidates need to be encouraged to look at the mark allocation for questions and elaborate their answers appropriately, and also to consider the command term used, in this case 'explain'. An explanation should be more than just a single simple idea, development/elaboration is required.

Question 8

- (a) (i) Many candidates were not able to operationalise their variable, either producing very vague suggestions or describing instead how it could be measured (i.e. presenting part of the method rather than an operationalisation). A small but significant minority of candidates attempted to operationalise aspects of sleep rather than happiness, so were not answering the question asked.
- (ii) Many responses only earned one mark here. Often the disadvantage given did not relate to the way happiness had been operationalised, but was general to studying happiness and sleep.
- (b) (i) Many candidates were able to follow the ethical issue they stated with some kind of explanation, most commonly with reference to distress for people who usually slept a long time having their sleep time cut. However, a significant minority of candidates gave reasons which did not explicitly link to an ethical issue.
- (ii) This question part was generally not answered well. There were frequent (irrelevant) references to generalisation and confusion between random sampling and random allocation was common as well as a common misunderstanding about random allocation. This process cannot reduce individual differences themselves, but reduces the effects or impact of these individual differences on the results of the study.
- (c) This was a three-mark question and produced a range of good answers. There was a tendency for candidates to omit either the justification or the link to the study. The link to the study was often not made. As with other questions, candidates must be sure to attend to all parts of the question and to follow the explicit instruction '...in this study'.

Question 9

- (a) Responses to this question tended to include generic reasons or advantages, hence many candidates did not gain the second mark here.
- (b) In this question part, many candidates demonstrated appropriate knowledge of experimental designs although a minority gave the response 'repeated measures' or offered a method rather than a design.
- (c) In this final part of the question there were some good responses in terms of what the control should be. Responses were typically less clear, however, about how to implement this control or why the control was necessary. As a result, many candidates achieved two marks but gaining the third mark was less common.

Section C

Question 10

- (a) Many candidates produced reasonable correlational studies, commonly using questionnaires, or occasionally with reference to interviews with therapists, to gain the appropriate data. In some responses the variable of 'how long they had been in therapy', was made into a nominal measure of whether they had had therapy or not (and this, therefore, could not be correlated). Furthermore, in many responses there was a lack of operationalising of the severity of symptoms or an indication of how this would be achieved. Reference to ethics and sampling was often included, and the references in both cases were often useful, relevant and specific (for example discussing the intrusiveness of questions for patients or the giving examples of specific sources that could be used to obtain participants. Some candidates gave very complex procedures, more complex than was needed, making their descriptions more time-consuming to write and less comprehensible.

Some candidates did not follow the instruction in the question to conduct a correlational study and instead redesigned the task as a laboratory experiment, a field experiment and observation, a self report or, very often, a case study. Although most of these designs could have been designed to generate appropriate data for analysis as a correlation this was rarely the case in the responses seen. It appeared that some candidates had learned a framework for this answer based on an experiment and then struggled to break away from the idea of an IV and DV to the requirements for a correlational study. Other errors included descriptions of the therapy that they could use rather than the duration of therapy received and ideas about 'change in severity' rather than severity as a continuous variable. A large number of candidates made a reference to the variables in the first sentence (echoing the question stem) but then continued with a design that was not related to this stated 'aim' so were often not measuring the variables in their initial description.

- (b) Many responses to this question part were very detailed, but were not related to the procedure given in part (a). This in part arose when responses to part (a) were weak so there was little substantial procedure to criticise. The result was that poor quality, generic problems such as demand characteristics and small sample size were addressed rather than specific issues with the procedure itself.

PSYCHOLOGY

Paper 9990/23 Research Methods

Key messages

- Although knowledge of research methods terms is crucial, being able to explain those terms and to apply them to situations is just as important and is generally essential to gaining more than the basic marks. The opportunity to look at examples of responses to questions which just identify or describe an appropriate term or concept in comparison to those which offer an explanation or application would help in developing this skill.
- When there is a need to link answers to the context or study this is typically explicit in questions. For example, with the use of '...in this study' or including reference to part of the scenario in the question. Candidates need to be prepared for examination questions using this format and will need to practise both extracting relevant ideas and making novel suggestions based on the scenario given. The opportunity to look at examples of generic and applied responses to questions would help in developing this skill. In particular, candidates may benefit from being shown how to use information in the stem to formulate a response as even when there was good evidence of understanding this was rarely applied to response even when the need was clearly specified.
- As in any examination, reading the question is very important. Candidates need to consider whether the response requires, for example, a link back to the question (see point above), an example, or an original 'creative' idea from the candidate. This will often enable the candidate to produce a response that raises their mark above a basic level. The opportunity to look at examples of limited and elaborated responses to questions would help in developing this skill.

General comments

Completed responses for this paper included a small but significant minority of candidates with illegible writing. Candidates should be made aware that if their answer cannot be read, marks cannot be awarded.

Many responses referred to 'ecovalidity' rather than 'ecological validity'. Whilst the meaning of this in context was clear, candidates should be encouraged to use the correct terminology (as given in the syllabus).

Candidates were able to demonstrate their knowledge of a range of aspects of research methods in this paper. Whilst some consistent problems arose, such as limited knowledge of interview types, objectivity and subjectivity, correlations and independent variables, there were also evident strong points. Candidates demonstrated a good understanding of aims, including examples from core studies, dependent variables and case studies.

Comments on specific questions

Section A

Question 1

This question part was often well answered, using a range of different studies. These included Saavedra and Silverman, Milgram, Laney et al., Pepperberg, Bandura et al., Yamamoto et al., Andrade, Piliavin et al. and Canli et al., each of which was used to produce high quality answers. Very few responses did not follow the instruction to include an example and almost all used a core study.

Question 2

- (a) This question part was well answered. Some candidates were unable to name their chosen method but could describe it competently.
- (b) This question part was less well answered, with many candidates gaining only partial marks. Without the demand for a link, the second mark could be gained either for generic detail or for linked detail. Nevertheless, there was little elaboration of answers. Given the cue of Milgram in the stem, candidates could, for example, have illustrated their disadvantage by explaining why Milgram's volunteer sample could have been biased.

Question 3

- (a) Most candidates were unable to name a type of interview, correct or otherwise. Types of interview are named on the syllabus and candidates need to be aware of these. Incorrect answers included (most commonly) 'self report' but also simple descriptions of a study. Many incorrect answers also referred to questionnaires. Candidates need to be aware of the differences between the essential research methods indicated on the syllabus.
- (b) When candidates successfully named or identified by description a suitable interview type in **Question 3(a)**, they were generally able to earn marks on this question part.

Question 4

Many candidates could not name the ethical guideline they had chosen to use to answer this question. The ethical guidelines for research with human (and animal) participants are on the syllabus and candidates should be aware of these.

- (a) Answers to this question were hampered by a limited knowledge of the ethical guidelines for research with human participants. Where candidates were able to identify a guideline (by name or description) they were often able to competently link this to the study, for example reporting that participants were lied to when told the study was about vision and vitamins because it was really about emotions and physiology. However, this link was often simply serendipitous because the candidates made reference to the procedure of the study. In addition, there were a significant minority of responses that attempted to make right to withdraw relevant to deception in the study.
- (b) Many candidates were able to successfully identify the problem and link their answer to the study, regardless of whether their answer to **(a)** had been creditworthy, illustrating a good understanding of the mechanics of a study.

Question 5

A number of candidates left this question blank. Of those candidates who answered the question, it appeared that many were aware of the procedure and/or results of the study and composed plausible graphs from this knowledge, which was entirely acceptable. Knowledge of the actual results of this study was not required for this question, but many candidates were not sufficiently familiar with these to reproduce the axes of the graph used by Canli et al.

Question 6

Although there were some excellent answers here, there were also many weak ones. A variety of factors contributed to this. Firstly, examples used to illustrate the issue in question, in this case objectivity and subjectivity, should be psychological in nature. Secondly, candidates need to understand the debates that are stated on the syllabus for AS Level. Many candidates began answers using the terms subjectivity and objectivity but wrote responses about the situational/individual debate, reductionism or freewill/determinism. Finally many weaker responses simply focused on 'the subject' (meaning the participant) whilst others described 'objectivity' as following the 'objective', i.e. 'aim' of the study.

Section B

Question 7

- (a) There were many good answers here, with competent suggestions about timing laughter or smiling. Some candidates did not respond to the instruction to measure 'how funny' the participant thought the joke was (a linear measure) but simply suggested recording whether the participant thought it was funny or not (a nominal measure).
- (b) The concept of a correlation was often poorly understood, with many responses having explanations that were causal or that referred to an independent and dependent variable.
- (c) This question part was generally not answered well. Even in those responses where the mean (or other suitable response) was correctly chosen, there was rarely any justification of *why* this choice was appropriate. Candidates could, for example, have based their justification on the type of data, (i.e. the level of measurement). However, there was little awareness demonstrated that there are difference measures of central tendency and of why there are different measures of central tendency.

Question 8

- (a) The term 'independent variable' was poorly understood, hence responses were largely limited. Even when 'autism' was identified, the key notion of there being 'levels' or 'conditions' of the independent variable was typically absent, with no mention of 'whether a person has autism or not'. Some responses described the dependent variable.
- (b) Answers to this question part were better. Indeed, even when the response to **Question 8(a)** had been incorrect, e.g. candidates had given the dependent variable, they were still able to repeat the dependent variable correctly here and earn full credit.
- (c) This question part was also typically well answered, with suggestions such as that the task was easier because people are more complex (or people are more varied) whereas dolls are simpler (or more consistent).
- (d) Again there were some good responses here, for example answers relating to participants feeling embarrassed or uncomfortable. There were other, often less effective answers, based on generic ideas such as a lack of generalisability.
- (e) This final part of the question was generally not well answered, with many candidates unable to name an experimental design, correct or otherwise. Of those few responses naming a design, not all were correct. Even fewer of these were linked to the experiment described in the stem as required by the question for full marks. Many incorrect answers were merely descriptions of the procedure.

Question 9

- (a) This question part was quite well answered, although many responses lacked a named ethical guideline. Nevertheless, by describing a guideline and providing a link explaining why this procedure was important in this specific study, candidates earned marks.
- (b) This question part was quite well answered, with most answers suggesting questionnaires. Although this was a three-mark question, many responses lacked detail and few included examples of questions that could be asked. Candidates should be encouraged to be creative and use their psychological knowledge to answer questions such as this. This was exemplified by occasional excellent answers describing appropriate practical suggestions such as asking the parents about furniture at home, how the child coped in the car, etc.
- (c) The question produced a wide range of ideas, many of which were linked to the question stem. For example, suggestions about needing a case study so that you could spend a long time with one individual as it would take a while to understand the phobia or that a case study offers the opportunity for therapy and this could be built into sessions so as not to frighten the child.

Section C

Question 10

- (a) Although the question specified that the study should be an observation, many candidates incorporated observation into laboratory experiments, field experiments, interviews and questionnaires, with varying levels of success. Even when focused on observations or detailing the observation procedures within another research method there was often little evidence of the terms used for different types of observation. In some cases, an awareness of these concepts was indirectly evident from the descriptions of their designs. There were very few attempts to operationalise the observational categories (such as types of doodles or duration of doodling).
- (b) Many responses to this question part were not directly related to the procedure given in **Question 10(a)**. This in part arose when responses to **Question 10(a)** were weak so there was little substantial procedure to criticise. The result was that poor quality, generic problems such as demand characteristics and small sample size were addressed rather than specific issues with the procedure itself. With regard to the problem that observations may not be reliable, a common 'solution' was to have more observers. Candidates should be encouraged to understand that the act of have more observers itself does not improve reliability (in fact, it potentially makes it worse) it is the co-ordination of the observers that matters. This is achieved, for example, by agreeing definitions for behavioural categories, practicing together, revising definitions together and conducting inter-observer reliability checks and acting on them to minimise the differences.

PSYCHOLOGY

Paper 9990/31 Specialist Options: Theory

Key messages

Question 1(a), 3(a), 5(a) and 7(a)

It is important that candidates are made aware of the terminology/concept identified in the syllabus as well as key terms used in named theories and studies as some were unable to identify and/or define the terms given. Revision of terminology using flash cards could prove useful. Where the response gave an example to help define the term this often achieved full marks. These questions are worth 2 marks and a brief response is appropriate.

Question 1(b), 3(b), 5(b) and 7(b)

These questions either asked the candidate to describe part of one of the named studies from the syllabus or a summary of the key features of the study. The question could also ask the candidate to describe a theory or technique used by psychologists that is named in the syllabus or identified in one of the studies or theories named in the syllabus. This question is worth 4 marks and the candidates should write a more extended answer.

Questions 1(c), 3(c), 5(c) and 7(c)

These questions required the candidate to explain strengths and/or weaknesses of what they have described in part (b) of the question, or to make a comparison or to evaluate using a specific issue, although this was not in this paper. This question is worth 6 marks so the candidate should write a more extended answer for each issue raised. Some responses were very detailed for one issue but then only briefly discussed the second issue. In addition, some of the responses were very general and not specific to the study or theory named in the question.

Questions 2(a), 4(a), 6(a) and 8(a)

This question requires description of specific content from the syllabus. Candidates should describe the three or four studies, theories or techniques identified in the syllabus under the appropriate bullet point. For this examination, some of the answers did not give all of the studies/theories under the bullet point or used the incorrect bullet point. It is also important that the descriptions are linked to the bullet point.

Questions 2(b), 4(b), 6(b) and 8(b)

This question asks the candidate to evaluate the theories, studies and/or techniques described in part (a) of the question. There is also a named issue that the candidate must discuss in their response. Ideally, the response should discuss a number of issues in order to be considered to have presented a range of issues. In their response, the candidate must provide some form of analysis. This could be done by discussing the strengths and weaknesses of the issue being considered, presenting a counter-argument to the issue under discussion or comparing the issue between two studies and/or theories. A conclusion at the end of each issue would be helpful in order to show excellent understanding of the issue under discussion. In order to achieve the requirements of the Level 4 band descriptor it is recommended that the responses are structured by issue rather than by study and/or theory. It is also recommended that the response start with the main issue to make sure the answer covers this requirement of the question.

Many of the responses either covered just the named issue and no other or covered other issues rather than the one named in the question. Quite a few of the answers were structured by study/theory rather than by the issue which often led the response to be quite superficial and repetitive. Some of the responses did include analysis. Candidates should be aware this question is worth 8 marks and attempt to include an appropriate amount of information.

General comments

There was a small entry for this second sitting of the 9990 syllabus. The marks achieved by the candidates tended to be at the lower end of the range of the mark scheme. Some provided good answers and provided some impressive details of studies and theories as well as being able to evaluate their descriptions in some depth.

Time management for this paper was good for most candidates and most attempted all questions that were required. A small number of candidates did not respond to one of the questions asked in the option area. A few of the candidates attempted to respond to more than two topic areas but often did not attempt all of the questions for each option chosen. These responses achieved at the lower end of the mark band.

The questions on abnormality and health were the slightly more popular choice of questions.

Comments on specific questions

Question 1

- (a) Many responses achieved full marks with a detailed answer, linking to behaviours such as persistent mirror-gazing. However, some candidates confused body dysmorphic disorder with phantom limb syndrome or an eating disorder. One mark responses tended to either just give an example of a behaviour or a brief definition of body dysmorphic disorder.
- (b) This was also fairly well answered in the majority of responses with details given about the genetic, biochemical and neurological explanations of OCD. Many responses used terminology very effectively and were able to give the appropriate gene, chemical and/or brain area that is linked to OCD. Responses that achieved less well tended to omit the specific terms or gave quite a confused response with just general statements about biochemical differences.
- (c) A number of the answers compared biomedical explanations with psychodynamic and cognitive explanations. Similarities were often with regard to determinism and differences were in terms of an explanation of OCD. A few responses made comparisons within the biomedical explanations, for example attempting to compare genetic with biochemical explanations, which was not creditworthy. Responses that did not address both parts of the question achieved limited credit.

Question 2

- (a) Most answers provided some description for the four bullet points in the syllabus (biochemical, electro-convulsive therapy, token economy and cognitive-behavioural therapy). There were a few detailed, accurate and coherent responses with many references to appropriate treatments used to manage schizophrenia. Many responses achieved limited credit due to giving either very brief answers or answers where the causes of the disorder were given rather than the treatments. A common error was to describe treatments from other parts of the syllabus without any specific reference given to schizophrenia or delusional disorder. Credit was given where these treatments were appropriate to schizophrenia but without specific reference to the disorder credit was limited.
- (b) There were some excellent answers where candidates had focused on three or four issues and wrote about these in some detail, referencing each treatment as relevant. In addition these responses provided some analysis and discussed the named issue. Most responses achieved in the level 2 mark band. Many answers did include reference to determinism but this was frequently done very briefly and often just stating that a treatment was deterministic or not with no explanation why this might be the case. Many were also quite repetitive in nature and very brief for each issue mentioned.

Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different treatment techniques in terms of the issue under discussion. Without analysis, these answers achieved limited credit.

For some responses where an incorrect treatment was described in (a), the evaluation in (b) could not be credited as it did not address the question.

Question 3

- (a) There were a few good responses to this question which gave both a good definition as well as providing an example of a customer focused sales technique in everyday life that meant the response achieved full marks. Many candidates did not know what this term meant and often described customer decision making or advertising techniques that did not involve focusing on the features of the customer.
- (b) A few candidates did know how the data was collected in the study and were therefore able to achieve a level 1 mark. However, most did not know any of the details of the study by Porublev et al. on gift wrapping. Some did achieve a mark by mentioning general types of data collection methods and were able to provide a creditworthy response often referring to the collection of self-report data.
- (c) Most candidates who did know a data collection method used then gave generic strengths and weaknesses of self-report or qualitative data but very few linked these to the study. Some of these general responses were detailed and as a result were able to achieve limited credit. Popular points included demand characteristics, issues with qualitative data and getting an insight into the participants' thoughts and feelings. As most did not know the study they either did not respond to this question or gave an incorrect strength and/or weakness.

Question 4

- (a) Most responses achieved very limited credit as they did not know the content of the syllabus regarding intuitive thinking and its imperfections in consumer decision-making. Those that did provide a credit-worthy response gave anecdotal/common-sense responses rather than referencing psychological research. A few answers did refer to thinking fast and thinking slow but few referred to any studies.
- (b) The responses were mainly not well answered with most achieving limited credit partly because of the lack of detail in part (a). As few candidates described the studies in part (a); this meant that their discussion of the experimental method was usually absent.

Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different theories and/or studies under discussion. Without analysis, these answers achieved limited credit.

Question 5

- (a) Many responses for the question were very good and achieved full marks. Most answers described failure to take medication although a few referred to failure to carry out behavioural changes. A few of the answers were quite brief and achieved one mark as a result.
- (b) This was also fairly well answered in the majority of responses. Although not many candidates were aware of the actual names of the conditions in the Yokley and Glenwick study, they frequently made very good descriptions. The most common conditions mentioned were the monetary incentive group and the increased access group. Some of the responses were very brief or repetitive and achieved fewer marks.
- (c) The vast majority of candidates described a strength and achieved at least one mark for this point. Many also then described a weakness and could achieve at least an additional mark. Strengths tended to focus on the reduction in demand characteristics but few managed to explain how this related to this study (that a vaccination would only be given once so people could not be in more than one condition). The most common weakness chosen was individual differences and this was often well explained and sometimes linked to the study.

Question 6

- (a) Most answers provided some description for the three bullet points in the syllabus. There were a few detailed, accurate and coherent responses with many references to appropriate terminology and details of the studies relevant to health promotion in schools, worksite and communities. Many responses achieved limited credit due to either being very brief or lacking in specific details.

Higher level responses gave good details about the studies by Tapper et al. on the food dudes, Fox et al. on worksites and the Five-City Project. However, candidates were also given credit for Cowpe as a community health promotion and Janis and Feshbach on fear arousal (as this took place in a school).

- (b) Some of these answers were very strong and considered a variety of issues in depth. These tended to be the named issue of validity (particularly ecological validity), usefulness, and generalisations. Weaker answers took each separate study described in (a) in turn, and evaluated it for a few issues, which tended to mean that the evaluation lacked depth.

Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different studies under discussion. Without analysis, these answers achieved limited credit.

Question 7

- (a) Many of the responses given for this question achieved full marks and the answers were able to outline what is meant by intrinsic motivation, usually using an example. For the responses that achieved limited credit, these tended to give an example without an explanation.
- (b) There were some excellent descriptions of the Maslow's hierarchy of needs, where the structure, examples of needs, and the importance of satisfying one level of needs before going on to the next were detailed. Those responses that achieved level one tended to be very brief and often just named one or two of the levels without giving any explanation or example of the level or how people progress through the hierarchy.
- (c) Most candidates who made strong and detailed comparison points used ERG theory as their comparison theory. However, there tended to be a lack of detail in most answers. The most common comparison points made were regarding whether it was a hierarchy and the complexity of each theory. A significant number of responses did not score any marks here because they did not refer to another theory of motivation.

Question 8

- (a) Most answers were able to provide some description from the three bullet points in the syllabus. There were detailed, accurate and coherent responses with many references to appropriate terminology and good reference to group development and roles in organisations. Some of the responses achieved in the lower levels due to giving brief answers. There were some excellent descriptions of what psychologists have discovered about group development and roles detailing the research by Tuckman (this seemed the most well-known) and Belbin's work on team roles and their measurement.
- (b) As well as the named issue of reductionism, common issues evaluated tended to be effectiveness and individual differences. Stronger responses took their evaluation points in turn and applied them to what they had described in (a). This enabled them to produce a detailed response. When the candidate took each of the theories about group development and/or roles in an organisation described in (a) in turn and applied some evaluation in turn this resulted in less detail.

There were also some that were not well answered and achieved limited credit. These answers often included brief reference to reductionism and showed some understanding of the factors considered by various theories about group development and roles that made them less reductionist. Some of the responses just gave a description of group development and roles which was not creditworthy on its own without any evaluation and/or analysis.

Most responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different theories of group development and roles in terms of the issue under discussion. Without analysis, these answers achieved limited credit.

PSYCHOLOGY

Paper 9990/32 Specialist Options: Theory

Key messages

Questions 1(a), 3(a), 5(a) and 7(a)

It is important that candidates are made aware of the terminology/concept identified in the syllabus as well as key terms used in named theories and studies, as some were unable to identify and/or define the terms given. Revision of terminology using flash cards could prove useful. Where the response gave an example to help define the term this often achieved full marks. These questions are worth 2 marks and a brief response is appropriate.

Questions 1(b), 3(b), 5(b) and 7(b)

These questions either asked the candidate to describe part of one of the named studies from the syllabus or a summary of the key features of the study. The question could also ask the candidate to describe a theory or technique used by psychologists that is named in the syllabus or identified in one of the studies or theories named in the syllabus. This question is worth 4 marks and the candidates should write a more extended answer. It is important that candidates are aware of the key features of the named studies and would benefit from being familiar with the wording used in the syllabus as a few wrote responses that identified information from the incorrect study/questionnaire/guideline. There were also a number of general responses that were not specifically directed at the question.

Questions 1(c), 3(c), 5(c) and 7(c)

These questions required the candidate to explain strengths and/or weaknesses of what they have described in part (b) of the question, or to make a comparison or to evaluate using a specific issue. This question is worth 6 marks so the candidate should write a more extended answer for each issue raised. Some responses were very detailed for one issue but then only briefly discussed the second issue. In addition, some of the responses were very general and not specific to the study, questionnaire or guideline named in the question.

Questions 2(a), 4(a), 6(a) and 8(a)

This question requires description of specific content from the syllabus. Candidates should describe the three or four studies, theories or techniques identified in the syllabus under the appropriate bullet point. For this examination, some of the answers did not give all of the studies/theories under the bullet point or used the incorrect bullet point. It is also important that the descriptions are linked to the bullet point.

Questions 2(b), 4(b), 6(b) and 8(b)

This question asks the candidate to evaluate the theories, studies and/or techniques described in part (a) of the question. There is also a named issue that the candidate must discuss in their response. Ideally, the response should discuss a number of issues in order to be considered to have presented a range of issues. In their response, the candidate must provide some form of analysis. This could be done by discussing the strengths and weaknesses of the issue being considered, presenting a counter-argument to the issue under discussion or comparing the issue between two studies and/or theories. A conclusion at the end of each issue would be helpful in order to show excellent understanding of the issue under discussion. In order to achieve the requirements of the Level 4 band descriptor it is recommended that the responses are structured by issue rather than by study and/or theory. It is also recommended that the response start with the main issue to make sure the answer covers this requirement of the question.

Many of the responses either covered just the named issue and no other or covered other issues rather than the one named in the question. Quite a few of the answers were structured by study/theory rather than by the issue which often led the response to be quite superficial and repetitive. Some of the responses did include analysis. Candidates should be aware this question is worth 8 marks and attempt to include an appropriate amount of information.

General comments

There was a small entry for this second sitting of the 9990 syllabus. The marks achieved by the candidates tended to be at the lower end of the range of the mark scheme. Some provided good answers and provided some impressive details of studies, theories and techniques as well as being able to evaluate their descriptions in some depth.

Time management for this paper was good for most candidates and most attempted all questions that were required. A significant number of candidates did not respond to one of the questions asked in the option area. A few of the candidates attempted to respond to more than two topic areas but often did not attempt all of the questions for each option chosen. These responses achieved at the lower end of the mark band.

The questions on abnormality and health were the more popular choice of questions.

Comments on specific questions

Question 1

- (a) Most responses achieved limited credit for this question by explaining that ECT is where an electric shock is applied to the brain in order to induce a seizure. A few responses mentioned applying electricity to the body rather than the brain. Some candidates were able to extend their response by giving additional details of the ECT treatment such as the shock being applied to one side of the brain to achieve full credit.
- (b) This was also fairly well answered in the majority of responses. Many responses gave a succinct description of the procedure and included details of the location, sample and self-reports given by the participants. Weaker responses gave brief or vague descriptions of the virtual reality scenario used by Freeman for limited credit.
- (c) Many responses were able to discuss the reliability of the procedure used by Freeman and gain limited credit by mentioning that the procedure was standardised. A small number extended this by explaining the effect of the standardisation and/or explaining in more depth how it was standardised through giving examples. A very small number mentioned the standardisation of self-reports and the effect this could have on the reliability of the procedure. However, many responses included a fairly detailed discussion of validity and/or generalisability that were not linked to reliability and were therefore not creditworthy.

Question 2

- (a) Most answers provided some description for the two bullet points in the syllabus (biochemical and cognitive-behavioural: covert sensitisation, imaginal desensitisation and impulse control therapy). There were a few detailed, accurate and coherent responses with many references to appropriate treatments used to manage impulse control disorders and non-substance addictive disorder. Many responses achieved limited credit due to giving either very brief answers or answers where the causes of the disorders were given rather than the treatments. A number of responses appeared unclear on what constituted a non-substance addiction disorder, giving descriptions of treatments for alcoholism, which is a substance addiction. Another common error was to describe treatments for phobias or schizophrenia. Good responses tended to describe case studies by Glover and Miller in appropriate detail, and the use of opiates to treat gambling addiction.

- (b) There were some excellent answers where candidates had focused on three or four issues and wrote about these in some detail, referencing each treatment as relevant. In addition these responses provided some analysis and discussed the named issue. The answers often did include reference to everyday life but tended to be structured by going through each treatment in turn and were often quite repetitive in nature and very brief for each issue mentioned.

Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different treatment techniques in terms of the issue under discussion. Without analysis, these answers achieved limited credit.

For some responses where an incorrect treatment was described in part (a), the evaluation in part (b) could not be credited as it did not address the question.

Question 3

- (a) There were a few good responses to this question which gave both a good definition as well as linking this to the retail environment in some way. However, many did not know what the term meant or did not relate it to retail environments.
- (b) A few responses did know the self-reports used in the study and could give a somewhat detailed response that received some credit. Most responses gave an anecdotal or basic response that mentioned that Machleit et al. did use a questionnaire to ask about shoppers' experiences of crowding.
- (c) Most candidates gave generic strengths and weaknesses of self-reports and very few linked these to the study. Some of these responses were detailed. Popular points included demand characteristics, issues with quantitative and qualitative data and getting an insight into the participants' thoughts and feelings.

Question 4

- (a) Most answers provided some description for the three bullet points in the syllabus. There were a few detailed, accurate and coherent responses with many references to appropriate terminology and details of types of advertising and advertising techniques. Many responses achieved in the lower levels due to giving either very brief responses or responses that gave more anecdotal responses.

Many candidates described advertising in general rather than focussing on what psychologists have discovered, as covered in the syllabus. There were few descriptions of marketing mix models or product placement in films (Auty and Lewis, 2004).

A significant number of responses described information from other parts of the syllabus. This could be given credit if their response then linked the studies and techniques to advertising. A number of these types of responses instead described how consumers make decisions when they decide to buy a product and made no mention of the influence of advertising on these decisions. These types of responses were not creditworthy.

- (b) The responses were mainly not well answered with most achieving limited credit. The answers often did include specific reference to the use of children in psychological research but as they often did not describe the Auty and Lewis study in part (a) the development of their discussion was very limited.

Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different advertising techniques in terms of the issue under discussion. Without analysis, these answers achieved limited credit. As often just one issue was discussed the credit achieved was normally limited, even if the discussion hinted at some analysis.

Question 5

- (a) Responses for the question were very good and many achieved full marks. Many candidates described correctly a blood or urine test and how levels of metabolites or traces of medication in the blood/urine could be used as a measure of adherence. A few of the answers were quite brief and achieved limited credit as a result.
- (b) This was also fairly well answered in the majority of responses. Most were able to achieve at least limited credit due to providing some correct information about two of the guidelines outlined by Ley. Some very good descriptions of two guidelines given. These tended to be stating important information first (primacy effect), simple language (avoiding jargon), or categorising information. Some of the responses were very brief or repetitive and achieved fewer marks.
- (c) The vast majority of candidates described a strength and achieved at least one mark for this point. The strengths given tended to focus on the improved adherence but did not explain why which limited the marks awarded. Weaknesses tended to be about individual differences where some patients prefer practitioners to use a more formal style, or time available to see a practitioner.

Question 6

- (a) Most answers provided some description for the three bullet points in the syllabus. There were a few detailed, accurate and coherent responses with many references to appropriate terminology and details of the stress management technique. Many responses achieved limited credit due to being very brief.
- There were some very impressive responses that achieved high marks, giving good descriptions of the use of biochemical techniques such as benzodiazepines and beta blockers, biofeedback (Budzynski et al.), imagery (Bridge), and (to a lesser extent) stress inoculation therapy (Meichenbaum). A significant number of candidates described causes of stress or methods for measuring stress rather than the management of stress. These answers gained no marks on their own.
- (b) The responses to this question covered the full range of the mark scheme. Some of the answers were very strong and considered a variety of issues in depth. These tended to be the named issue of ethics, usefulness, and reductionism. Weaker answers would take each separate treatment described in (a) in turn, and evaluating it for a few issues. Unfortunately this tends to mean that the evaluation lacks depth. A significant number of candidates did not answer the question and instead simply wrote more about treatments, causes or explanations which was not creditworthy.
- Many responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different stress management techniques in terms of the issue under discussion. Without analysis, these answers achieved limited credit.

Question 7

- (a) Many of the responses given for this question achieved full marks and the answers were able to outline what is meant by job absenteeism. The most common responses were voluntary and involuntary absences where an example was given to achieve full marks. For the responses that achieved limited credit these tended to give an example without an explanation.
- (b) Better responses gave an excellent description of the Minnesota satisfaction questionnaire. Creditworthy points included the number of items, short and long versions, description of the responses, and areas being assessed. Those responses that achieved limited credit tended to be either very brief or quite general with few specific details given of the Minnesota satisfaction questionnaire.
- (c) Most candidates who made strong and detailed comparison points used the JDI as their comparison questionnaire. However, there tended to be a lack of detail in most answers and the most common comparison point made was regarding the type of data (but this often incorrectly stated that Minnesota satisfaction questionnaire produced qualitative data). A significant number of responses did not score any marks here because they did not refer to another questionnaire.

Question 8

- (a) Most answers were able to provide some description from the three bullet points in the syllabus (intrinsic and extrinsic motivation, types of rewards systems and non-monetary rewards). There were detailed, accurate and coherent responses with many references to appropriate terminology and good reference to motivation at work. Some of the responses achieved in the lower levels due to giving brief answers. Many responses clearly understood the difference between intrinsic and extrinsic motivation, types of rewards, and non-monetary rewards. Some candidates linked well to theories of motivation such as Maslow's hierarchy or the ERG model.
- (b) As well as the named issue of reductionism, common issues raised tended to be determinism, effectiveness, and individual differences. Stronger responses took their evaluation points in turn and applied them to what they had described in (a). This enabled them to produce a detailed response. When the candidate took each of the motivators described in (a) in turn and applied some evaluation in turn this resulted in less detail.

There were also some that were not well answered and achieved limited credit. These types of answers often included brief reference to reductionism and showed some understanding of the factors considered by various theories and types of motivators that made them less reductionist. Some of the responses just gave a description of the motivators and/or theories of motivation at work. Some of these responses achieved some credit when they showed a link to the application of motivators at work to organisational success.

Most responses did not include any analysis and did not consider strengths and/or weaknesses of the issue, provide any counterargument or a comparison between the different motivators in terms of the issue under discussion. Without analysis, these answers achieved limited credit.

PSYCHOLOGY

Paper 9990/33
Specialist Options: Theory

There were too few candidates for a meaningful report to be produced.

PSYCHOLOGY

Paper 9990/41
Specialist Options: Application

Key messages

- What has been learned from the **AS** component of the syllabus should be transferred to the **A2** component. For example at **AS** Level candidates learn about methodology, such as experiments, which also apply to **A2**.
- Questions should be read carefully ensuring that the focus is on what the question asks.
- All components of the question should be included in answers. For example, **Question part (d)** for **Section A** questions required advantages and disadvantages (plurals) *and* a conclusion.
- In **Section B**, methodological knowledge must be evident and detailed for top marks to be accessed. The procedure, however detailed, is just one methodological aspect. For top marks, answers must explain methodology rather than merely identify it.
- In **Section C**, to access top marks, answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided.
- Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve top marks.

Comments on specific sections

Section A

- Candidates frequently failed to address the 'stem' of the question, the introduction or the opening words in **Section A**, which is crucial to answering each question part that follows.
- In part **(d)**, many answers only included one advantage (or disadvantage) and many did not include a conclusion, so restricting marks available. Many conclusions merely repeated what had already been written, and such *summaries* scored no marks. A conclusion is a 'decision reached by reasoning' and so as the reasoning has been done through the advantages and disadvantages, a final decision/conclusion needs to be drawn.
- Candidates should think about what the question requires rather than writing prepared answers. Many questions will test the ability to apply knowledge from one situation to another, particularly methodological knowledge.
- Candidates should always provide sufficient detail to score all the available marks. A single sentence is more likely to score one mark rather than two marks, so a little elaboration, explanation or example that goes beyond the basic sentence is always recommended. Candidates should always try to impress the Examiner with their psychological knowledge.

Section B

Answers to **Part (a)** questions in **Section B** should include an appropriate design, have applied a range (four or five) of relevant methodological design features, each of which should be explained fully, showing good understanding. In **Part (b)**, answers should explain the methodological decisions on which their **Part (a)** design is based and also explain the psychological evidence on which their design is based.

Section C

It is essential that answers focus on the question that is set. Every question in this section invites candidates to consider the extent to which they agree or disagree with the statement. It does not ask candidates to describe everything they know about that topic area, and answers doing are likely to achieve minimal marks. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must use appropriate evidence to support the argument, and at the very top of the mark range answers should show awareness of wider issues and evidence that is relevant.

Comments on specific questions

Section A

Question 1

- (a) Many answers scored no marks because the question was not answered specifically. Rather than basing answers on the stem of the question, which is an essential component of the question, many responses were focused on a totally different study, that by Glover on *covert sensitisation*, rather than by Blaszczynski and Nower (2002) on *imaginal desensitisation*. The crucial element that was missing from many answers was the emphasis on teaching patients *progressive muscle relaxation*, even though this was referred to in the stem of the question. Responses scoring full marks described the two essential components clearly and simply. For example 'patients undergo muscle relaxation accompanied by the therapist and then they are asked to visualise themselves engaging in the behaviour'.
- (b) Many candidates scored maximum marks. Some scored partial marks, either through lack of elaboration or by only giving one advantage, and some scored no marks because of a lack of understanding of the term *imaginal desensitisation*.
- (c) Responses scoring full marks gave an appropriate problem and then referred to the implication of this problem. For example, 'patients might fill in the table even though they have missed a session, and this would affect the validity of the data'. Some responses showed a lack of understanding about what was meant by a relaxation monitoring table, despite this being a fundamental component of home-based therapy and mentioned in the stem of the question. Many responses appeared to be guesses.
- (d) Answers often scored full or nearly full marks in response to this question. Most candidates included two advantages and two disadvantages and sometimes provided an appropriate conclusion in their answers. A number of answers focused specifically on *imaginal desensitisation* whilst others legitimately widened their answers to impulse control disorders in general, as the question allowed. Some answers only included one advantage (or disadvantage) or did not include a valid conclusion, and scored partial credit.

Question 2

- (a) Some answers scored full marks, understanding that Mackay and Olshavsky used the term 'draw-a-map' rather than the more well-known term 'sketch map', and were able to explain a sketch map in detail. Some answers scored no marks because the question was answered incorrectly, many answers appearing to be a guess about what the term 'draw-a-map' meant.
- (b) Mackay and Olshavsky suggest that cognitive maps can be measured in three main ways. The first, a sketch map, was described in **Question 2(a)** and the other two are required in this question part: (i) participants draw lines indicating the distance between pairs of points on a map; (ii) multidimensional scaling uses proximity data to estimate multidimensional maps. Whilst some candidates scored full marks, others did not, often guessing and scoring no marks.
- (c) This question required a suggestion of how sketch map data, i.e. drawings/sketches, could be analysed. Answers followed the same pattern as for **Questions 2(a)** and **2(b)** with some responses being poor guesses and others scoring full marks. Strong answers made the point that sketch map data is qualitative and therefore could be analysed by two judges and then a correlation used to determine the reliability of the judgements of the two observers.
- (d) All **Part (d)** questions in **Section A** require a discussion of advantages/strengths and disadvantages/weaknesses and this question part was no exception. This question required a discussion of the 'draw-a-map'/sketch map technique. Many answers showed good understanding when giving two advantages and two disadvantages. Conclusions were often absent or were summary/repetition.

Question 3

- (a) Answers scoring full marks explained that cortisol is a 'stress hormone', which can be gathered using a salivette (a sample of saliva in a test tube). Many answers scored no marks because it was not known what was meant by salivary cortisol, or how it can be used to measure stress, although it is the primary measure involved in the study by Evans and Wener. Some answers incorrectly focused on adrenaline and some answers believed that salivary cortisol can be tested in a urine sample.
- (b) Many candidates scored maximum marks. Some candidates scored partial marks, either through lack of elaboration or by only giving one advantage, and some candidates scored no marks because of a lack of understanding of the term.
- (c) Many answers scored two marks because they were able to suggest two other ways in which stress is measured. Some of these answers went on to address the second half of the question, but some did not, or scored just one further mark. Other ways of measuring stress include gathering a urine sample (as done by Lundberg) or gathering a blood sample. Other possibilities include conducting an fMRI scan (as done by Wang et al.). Other measures could be the use of GSR. An outline of any two of these scored two marks. Evans and Wener did not gather a urine or blood sample because of its inconvenience and because people would be less likely to participate. They didn't use an fMRI scanner because it could not be used on a train. They did not use GSR because it is unreliable. Any two comments like these scored the remaining two marks.
- (d) Some answers were excellent, showing a good understanding of both the study and of reductionism. For example, 'the study was not reductionist because Evans and Wener used physiological evidence, salivary cortisol, and also they gathered psychological data in the form of a proofreading task and a mood questionnaire'. The requirement to consider the issue of reductionism appeared to confuse some candidates, because they wrote answers showing no understanding of this syllabus term. Some answers were brief and nothing more than 'the study is reductionist'.

Question 4

- (a) There were many successful answers, with some quoting from the Gold et al. study. There were there were many incorrect guesses at the question which scored zero marks, typically, responses for the term 'rotator' shift being 'it is a shift done by a rotator', which could not be credited.
- (b) Many answers scored two marks for: 'Rotators were more likely to nod off whilst driving to and from work, for example rotators had 3.9 times the odds and night nurses had 3.6 times of nodding off'. Another finding, worth the remaining two marks, was that rotators had more sleep/wake cycle disruption and nodded off more at work, this finding could also be supported with numbers.
- (c) The command word *suggestion* means that a candidate has to think for themselves rather than recall knowledge. In this instance two reasons had to be suggested (for failure to return questionnaires). Often answers did include two suggestions, but in many cases there was a lack of detail in the answers and so the additional marks could not be awarded. This is a typical weakness: candidates should always provide sufficient detail, with one sentence answers being too brief to score full marks.
- (d) This question asked for advantages and disadvantages of using questionnaires and so candidates could apply their methodological knowledge of questionnaires acquired from any part of the course. Whilst most answers successfully provided two advantages and disadvantages, problems were sometimes encountered when applying this to accidents in the workplace. There were many top mark answers which suggested for example, 'that closed-questionnaires gathering quantitative data may not tell the full story of an accident and an open-ended questionnaire gathering qualitative data might be much more useful'.

Section B

Question 5

- (a) Candidates had to design an interview and any other method used could not be credited. Most answers did include an interview and although some of the basics of interview techniques were evident, more explanation/detail could have been added to most answers. To gain full marks the design had to be based on appropriate psychological knowledge, in this case knowledge of pyromania, such as the work of Burton et al. (2012), which is listed on the syllabus. This would mean that questions asked in the interview would clearly distinguish what type the accused person is (and so answer the question set). Whilst this was done in a few cases, most candidates used their own common sense questions. A few answers included interview questions such as 'do you think you are an accidental firestarter, an arsonist or pyromaniac'.
- (b) In relation to methodological evidence, many candidates explained why they decided to conduct the interview in a clinical setting. Another focus was on the type of data that the interview produced, with most candidates gathering qualitative data mainly because that was no need to compare this person to any other. In relation to psychological evidence, this was not well done when knowledge from the studies on the syllabus should be used. In this case, knowledge of the differences between an accidental firestarter, an arsonist and pyromaniac was essential.

Question 6

- (a) Investigations based on this question had to be a field experiment. This meant that common features of IV, DV, controls and experimental design should have been included and explained in detail. Many answers did this extremely well, but there were also many answers that did not. Some answers did not have an IV, and some got the IV and DV confused. Some answers impressed by including a hypothesis and null hypothesis. Many answers included other features of investigations such as the sampling technique, type of data, and ethical considerations. Some of these features were explained very well, but other answers provided a list without elaboration. For example, 'my study will be ethical' and 'my study will be reliable', when a simple explanation of why the study will be ethical/reliable would earn more marks.
- (b) Many answers wrote about a range of different methodological aspects such as the choice of experimental design (most were independent), the application of a number of different controls, and why it was decided to have two conditions of an independent variable rather than three or more. In designing any study decisions have to be made and in this question part there should be an explanation about those decisions. For example, why choose an independent experimental design rather than related. Relevant psychological knowledge for this question could come from a number of different syllabus sections such as 'defending a place in a queue' (Milgram et al., 1986) and store interior layout (Vrechopoulos, 2004).

Question 7

- (a) Many candidates answered the question appropriately, many scoring high marks. However, many answers scored very few marks because of a failure to answer the question set. The question required an investigation into a stress inoculation programme, and such programmes target 'non-stressed' people to prepare them to cope with stress should it happen. Such programmes are equivalent to a medical inoculation to prevent disease. Many answers failed to understand this and wrote incorrectly about stress management techniques instead.
- (b) Not all candidates were able to explain the work of Meichenbaum on stress inoculation as psychological evidence for their study. In terms of methodological evidence, some IVs and procedures were flawed (a focus on stress management techniques) and sample selection was ambiguous because of the focus on people who were stressed rather than people who were not.

Question 8

- (a) This question required the design of a questionnaire to investigate bullying at work. Many answers included an appropriate list of features specific to questionnaires and often an appropriate list of features that apply to any research methodology. Some of these answers were done in detail and full marks were achieved, whereas others needed to explain how they would achieve certain features. For example, 'I would obtain a random sample' without any explanation of how that random sample would be obtained. Many designs gave examples of the questions they would ask participants and some of these were impressive when asking about different types of bullying and the extent to which they and others were bullied.
- (b) Explanations relating to methodological knowledge can be of any aspect that is used in the **Question 8(a)** design. The most effective strategy is to explain why a particular decision was made with a supporting reason. For example if a random sample is used, an explanation might be why this technique was chosen in preference to another. Similarly, an explanation could be given about how the type of data chosen could be gathered or how this data would be analysed. Psychological knowledge in relation to bullying was often based on personal experiences in school or college rather than being based on experiences gathered through research in work organisations, as listed on the syllabus.

Section C

Question 9

Stronger responses considered a range of appropriate arguments, in many cases providing three arguments for and three arguments against. One of these debates, for example, is that even though ECT might not cure depression, it does help relieve symptoms in many patients. Some candidates extended this and brought in the additional point that cognitive behaviour therapies do not cure depression either. Credit will always be given for answers which show the ability to think and understand the topic area in question. Weaker responses often *described* what was known about electro-convulsive therapy (ECT). This question is not about description, but the consideration of the arguments for and against.

Question 10

Some answers had excellent methodological content, but often failed to relate this to table spacing in restaurants. Stronger answers focused specifically on the question, debating the advantages and disadvantages of online questionnaires compared with the advantages and disadvantages of studying people in actual restaurants, either by experiment, observation, or even by questionnaire after the table space at which they had eaten had been manipulated. In relation to this question, a small number of candidates thought they had to design a study, perhaps confusing this question with **Section B**. Questions in this section will be wide-ranging, and may focus on methodology, as in this case.

Question 11

Stronger responses understood that being reductionist allows one variable to be focused on, or manipulated, and all other variables controlled, and that being reductionist has many advantages. Many candidates struggled with the term reductionism, either because they didn't understand what it meant, or because they did not know its advantages and disadvantages. As reductionism is listed on the syllabus, it is essential that the term and all aspects of it be known in full. Weaker responses made a distinction between non-verbal and verbal communication but were often unclear that focusing on one of these aspects was reductionist, whereas taking both into account would be more holistic. Answers like this often assumed that reductionism was only negative.

Question 12

Stronger responses showed good understanding when pointing out that some types of job design increase responsibility, such as job enrichment, which may or may not result in more job satisfaction, whereas other job design techniques are unlikely to increase responsibility, such as job rotation, and therefore probably will not improve job satisfaction. A small number of answers additionally considered the question of how job satisfaction could be measured, and these answers received appropriate credit.

PSYCHOLOGY

Paper 9990/42
Specialist Options: Application

Key messages

- What has been learned from the **AS** component of the syllabus should be transferred to the **A2** component. For example at **AS** Level candidates learn about methodology, such as experiments, which also apply to **A2**.
- Questions should be read carefully ensuring that the focus is on what the question asks.
- All components of the question should be included in answers. For example, Question part **(d)** for **Section A** questions required advantages and disadvantages (plurals) *and* a conclusion.
- In **Section B**, methodological knowledge must be evident and detailed for top marks to be accessed. The procedure, however detailed is just one methodological aspect. For top marks answers must explain methodology rather than merely identify it.
- In **Section C**, to access top marks answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided.
- Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve top marks.

General comments

Section A

- Candidates frequently failed to address the 'stem' of the question, the introduction or the opening words in **Section A**, which is crucial to answering each question part that follows.
- In part **(d)**, many answers only included one advantage (or disadvantage) and many did not include a conclusion, so restricting marks available. Many conclusions merely repeated what had already been written, and such *summaries* scored no marks. A conclusion is a 'decision reached by reasoning' and so as the reasoning has been done through the advantages and disadvantages, a final decision/conclusion needs to be drawn.
- Candidates should think about what the question requires rather than writing prepared answers. Many questions will test the ability to apply knowledge from one situation to another, particularly methodological knowledge.
- Candidates should always provide sufficient detail to score all the available marks. A single sentence is more likely to score one mark rather than two marks, so a little elaboration, explanation or example that goes beyond the basic sentence is always recommended. Candidates should always try to impress the Examiner with their psychological knowledge.

Section B

Answers to **Part (a)** questions in **Section B** should include an appropriate design, have applied a range (four or five) of relevant methodological design features, each of which should be explained fully, showing good understanding. In **Part (b)**, answers should explain the methodological decisions on which their **Part (a)** design is based and also explain the psychological evidence on which their design is based.

Section C

It is essential that answers focus on the question that is set. Every question in this section invites candidates to consider the extent to which they agree or disagree with the statement. It does not ask candidates to describe everything they know about that topic area, and answers doing are likely to achieve minimal marks. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must use appropriate evidence to support the argument, and at the very top of the mark range answers should show awareness of wider issues and evidence that is relevant.

Comments on specific questions

Section A

Question 1

- (a) As Lovell et al. state 'The clinical outcome of cognitive behaviour therapy delivered by telephone was equivalent to treatment delivered face to face and similar levels of satisfaction were reported'. In other words, there was no difference between the two. Many candidates, who stated this in their answers, scored full marks. A common incorrect answer was to state that face-to-face therapy was better than therapy by telephone.
- (b) Stronger responses referred to baseline data being the starting point, the 'before' to allow the effectiveness of the treatment program to be judged against the baseline, the 'after', and stating this 'why' scored two marks. To score the two marks for the 'how' component of the question, many answers outlined the use of the Y-BOCS (OCD) and the Beck depression inventory. Many answers failed to score full marks because they did not address both parts of the question, 'how' and 'why'. Further, many answers scored no marks because they did not demonstrate understanding of 'baseline data'.
- (c) Two differences were required, and answers scoring top marks provided two distinct differences and for each stating the case for one therapy and then for the other. For example, 'face-to-face therapy consisted of 10 one-hour sessions whereas telephone therapy had one face-to-face session followed by eight telephone sessions'. Any appropriate difference would receive credit and a list of differences appears on the mark scheme.
- (d) Many answers included two advantages and two disadvantages and a conclusion and often scored full marks. Some answers focused on the 'participant' and not the 'patient' when there are many differences between a person who volunteers to participate in a study and a person who is undergoing treatment for a real problem. Some answers only included one advantage (or disadvantage) or did not include a valid conclusion, and scored partial credit.

Question 2

- (a) Many answers provided a partial answer, such as 'the shopper sees more goods', whereas answers scoring full marks provided some elaboration such as 'the shopper sees more goods because the sales floor is organised into semi-separate areas each with a particular theme', with an answer like this showing appropriate psychological knowledge. A number of answers scored one or no marks by appearing to guess what might be an advantage of this type of store layout.
- (b) Answers scoring top marks provided two distinct differences and for each difference stating the case for the 'grid' layout and then for the 'freeform' layout.
- (c) The question stated 'other than virtual reality', but many answers focussed on virtual reality, which could not be credited. Many other answers appeared to be confused about what the question was asking, and were not able to apply general methodological knowledge to shopper/customer behaviour. Any alternative method would have been appropriate. For example, a field experiment could have been conducted with the IV being different store layouts; alternatively, shoppers could be observed and their patterns of behaviour such as the time they spent in the store could be recorded. Shoppers could be given questionnaires, or they could be interviewed, when leaving the store.
- (d) Many answers included two advantages and two disadvantages and a conclusion and often scored full marks. The mark scheme lists a number of strengths and weaknesses of virtual reality as a method. Some answers only included one advantage (or disadvantage) or did not include a valid conclusion, and scored partial credit.

Question 3

- (a) Most answers explained that the study was longitudinal because it was conducted over a period of time and so scored limited credit. Some answers went on to score the second mark by explaining why the Lau et al. study was longitudinal which is because participants completed a questionnaire for each year they were at university.
- (b) Some answers had little difficulty scoring maximum marks showing good understanding of the two models. A number of answers appeared to be guesses about what the two models were about, and sometimes managed to score one mark for each. Many answers were not able to score marks because they appeared to not to be familiar with the two models in question. To clarify, the enduring family socialisation model argues that health beliefs are learned from the family and remain stable throughout life. Alternatively, the lifelong openness model suggests that people can be influenced throughout their life with the family having no more or no less influence on a person's beliefs. These two models have many differences and reference to the mark scheme is advised.
- (c) Some answers suggested the health belief model and received some credit. Many answers scored no marks because they appeared not to know an alternative model. The study by Lau et al. outline what they call the 'windows of vulnerability model' and this alternative model suggests that parental influence persists until other people, such peers at school, or a spouse/partner, become more influential and health beliefs change.
- (d) This question asked for advantages and disadvantages of conducting longitudinal studies and so candidates could apply their methodological knowledge learned from any part of the course. Whilst most answers successfully provided two advantages and two disadvantages, problems were encountered when applying this to health beliefs. A number of candidates gave examples from the study by Thigpen and Cleckley on 'Eve' (which is no longer on the syllabus) and from the study by Freud on little Hans. While using additional psychological knowledge is encouraged, this must be relevant and neither of the two examples given here are related to health beliefs. The most logical strategy is to use the study on which the question is based, i.e. that by Lau et al.

Question 4

- (a) There were many successful answers to this question scoring full marks, because the relationship between leadership and management was explained. Many other answers either did not know the difference or simply wrote that 'leaders lead and managers manage'.
- (b) One disadvantage was required for this question part, and so this should have been done in appropriate detail for four marks. Some answers provided two and sometimes even more disadvantages. In such cases all answers were marked and the best one credited. Answers scoring top marks often focused on the extra time a democratic decision-making process might take, either because of time to consult everybody or because not everybody would agree. A number of answers scored partial marks contrasting a democratic with an autocratic style.
- (c) Answer scoring the best marks referred to the study by Muczyk and Reimann (1987), listed on the syllabus, which provides a diagram showing four styles resulting from the amount of leader direction and the degree of participation in decision-making. Many answers were based on the very old distinction between autocratic and democratic styles of leadership and while this provided a good basis, many of these answers were unable to provide any elaboration or explanation sufficient to score more than partial marks.
- (d) The question required a discussion of the usefulness of determining leadership styles. Many answers showed good understanding when giving two advantages (for example increased efficiency; more effective decision-making) and two disadvantages (such as measures to determine leadership style; styles that are not applicable to a particular organisation). Conclusions were often absent or were summary/repetition.

Section B

Question 5

- (a) Answers had to design a questionnaire and use of any other method could not be credited. Most answers did use a questionnaire and although some of the basics of this method were evident, more explanation/detail could have been added to most answers. To gain full marks the design had to be based on appropriate psychological knowledge, in this case knowledge of body dysmorphic disorder, which is listed on the syllabus. This would mean that the questions asked would focus on determining most common behaviours. Whilst this was done in a few cases, most candidates asked about nothing more than mirror-gazing. Whilst the study by Veale and Riley appeared on the previous syllabus (9698), it is not part of the current syllabus (9990). A few answers therefore included questions such as 'how often do you mirror gaze', which does not address the required focus of the investigation.
- (b) Psychological evidence was often restricted to mirror gazing. While this is one common behaviour, others are camouflaging, comparing with others, and excessive grooming. Appropriate evidence such as this should form the basis of the questionnaire designed in part (a). Relevant methodological aspects here could be whether the questionnaire is open, closed, or a mixture of the two. Further, this would determine the type of data and how that data would be analysed. A common error was to state that objective data would be obtained. A questionnaire is never objective because people can respond to questions in any way they choose. Some people may tell the truth and some people may not. Just because a questionnaire gathers quantitative data does not automatically make it objective.

Question 6

- (a) Investigations of this question had to be a field experiment. This meant that common features of IV, DV, controls and experimental design should have been included and explained in detail. Many answers did this extremely well, but also there were many answers that did not. Some answers did not have an IV, and some confused the IV and DV. Better answers had an IV of three different levels of aircraft noise; some answers investigated noise before take-off, during take-off, and when the aircraft was coming into land. (However, these latter designs appeared to be unaware that food cannot be served during take-off or landing.) Designs were also ambiguous in relation to the sampling technique. It is advised that time is spent thinking about a design before starting to write the response.
- (b) In relation to methodological decisions, in this question part there could be an explanation of why three different levels of aircraft noise were chosen, or of why the study would be done on take-off, during flight and landing. An explanation could also be provided as to the type of data the DV would measure. Some answers suggested a rating of sweetness on a five-point scale so that this would provide quantitative data allowing a direct comparison of the conditions of the independent variable. Psychological knowledge in the stronger answers showed a good understanding of the study on background noise and food perception by Woods et al., but weaker answers were not able to demonstrate any understanding of this study.

Question 7

- (a) This question allowed candidates to choose their own method of investigation, the crucial aspect being that fear arousal had to be used. A number of answers used an experiment and, as used in psychological research, had a high, moderate and minimal fear conditions, often suggesting that cyclists watch one of three video recordings. Answers then differed according to how data would be gathered, with some answers simply observing the increase in cycle helmet use or not, with others using a questionnaire. Many answers, in addition to specific features, included other features of investigations such as the sampling technique, type of data, and ethical considerations. Some of these features were explained very well, but other answers provided a list of features without elaboration. For example, 'my study will be ethical' and 'my study will be reliable', when a simple explanation of why the study would be ethical/reliable would earn more marks. Unethical studies should not be designed, although in this instance it is debatable whether a fear arousing videotape would be unethical.

- (b) For this question, more than any other question in this section, answers were nearly always based on psychological evidence, specifically the work on fear arousal by Janis and Feshbach (1953), which had three conditions of its independent variable, and many answers used the same format. This is acceptable because the psychological knowledge is being applied in a different situation. Methodological knowledge was sometimes impressive with detailed explanations of the reasons for certain decisions, such as why an independent rather than related design was used, but in other instances methodological knowledge was weak or absent.

Question 8

Many candidates attempted this question without being able to demonstrate an understanding of the terms 'illusion of unanimity' or 'groupthink', often scoring very few marks in both part (a) and part (b).

- (a) Stronger answers frequently designed observations, with a non-participant observation often considered to be the best way to investigate group behaviour. When candidates are given a free choice of method to use it does not mean that all methods should be used, as was done by some candidates. One method in detail is better than several methods with a sentence on each. Notably an experiment could be the main method but with data gathered either through observation or questionnaire.
- (b) The illusion of unanimity, an aspect of groupthink, is when members of the group make the false assumption that any individual who remains silent during any part of the discussion is in full agreement with what the others are saying. Methodological evidence raised some interesting debates, for example, whether participant observation or non-participant observation (observation through a one-way mirror) was best. Some thoughtful answers opted for non-participant observation so they would not influence group members if they quietly sat and observed.

Section C

Question 9

In response to this question some candidates described in detail how little Albert acquired his phobia. Whilst these descriptions were often accurate and detailed, they did not answer the question. Answers must address the question and in this case was the extent to which the behavioural explanation can be generalised to everyone. Stronger answers argued that the behavioural explanation, specifically classical conditioning, applies to everyone, and that this is the way any phobia can be learned. Alternatively, the argument was presented that little Albert was just one child, and specifics of one child cannot be generalised to others. Examples came from Freud and little Hans (i.e. evidence brought in to support the point being made), and additionally this is true of any case study of an individual. Answers presenting arguments like this often ended by stating that some things can be generalised, but others cannot, a perfectly legitimate ending to the answer.

Question 10

There were many impressive responses, which gave examples of where certain colours are often common across cultures, but where other colours differ. The use of world-wide brands, such as red Coca-Cola cans was a good example to use. The psychological knowledge on which the statement of this question is based is that by Grossman and Wisenblit (1999) on product colour and associative learning. Other answers were not able to demonstrate any knowledge of this research and were based on anecdotal/common-sense knowledge.

Question 11

Many answers described every measure of pain and some answers described self-report techniques and observations, but candidates needed to address the question, 'to what extent do you agree with the statement'. Stronger answers suggested that observation of pain (e.g. the UAB) had the advantage that it was done by a nurse who knows about pain behaviour, but had the disadvantage that the person being observed did not describe their pain. Alternatively, the self-report of a person often does not describe the pain adequately or they may under- or over-estimate, whereas observing how pain behaviours change over time gives a more objective measure. This is just one debate that was considered in response to the question.

Question 12

This question required answers to focus on the debate between individual and situation features of leaders, or whether leaders are born or made. Answers which understood this debate firstly focused on charismatic leaders and wrote about the great person theory of leadership. This was then followed with the consideration of some theories of situational or adaptive leadership. Weaker responses simply described theories whereas stronger responses used each theory as evidence to argue their agreement or otherwise in relation to the statement.

PSYCHOLOGY

Paper 9990/43
Specialist Options: Application

There were too few candidates for a meaningful report to be produced.