

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 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, a named issue to be included, or relate back to a previous answer. To achieve full marks, these need to be correctly present in their responses. 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. Credit is limited if the named issue is omitted or just described.

Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit.

Candidates need to appreciate the difference between features of a sample and characteristics of a sample. Characteristics are the participant variables that are presented by the sample, whereas features are anything related to the sample, for example, characteristics, sample size, sampling technique etc.

Candidates also need to engage with any stimulus material presented in a question (for example, a novel situation) to ensure they can access all available marks. In addition, when a question refers to 'in this study' the answer requires contextualisation with an explicit example from that study.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is based on the particular core study and how this could be achieved. This must be explicitly made clear by the candidate.

Candidates need to appreciate the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study.

Candidates also need to know the set procedure of studies in the order presented in the original journal article. Questions can be based around just *part* of a procedure and the candidate must be able to produce an answer that is directed and concise rather than writing about the whole of the procedure. This can sometimes mean a candidate may run out of time for other questions.

There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. 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.

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 to real-world behaviours in terms of what and how.

Comments on specific questions

Question 1

- (a) Many responses to this question were correct (15 volts). However, there were a significant minority of responses that gave 45 volts or 0 volts as the answer.
- (b) There were many responses to this question that were awarded two marks. Common correct responses included shocking the learner for each incorrect response and increasing it by 15 volts each time. Many responses went beyond the demands of the question (which was about the shock instructions) with examples of the prods given by the experimenter or what happened when no response was given. These were reactive to the situation and not the instructions originally given to the participant.
- (c) There were many correct responses to this question. Popular responses included the authority figure, the prods given to the participant and the setting. Some candidates responded with payment, but this was in the question.

Question 2

- (a) Many responses could clearly outline one aim of the study by Piliavin et al. Common responses included testing in a natural setting and helping different types of victims. To improve, candidates need to explain terms used like diffusion of responsibility or the bystander effect with examples to ensure they can be awarded maximum marks. Some responses focused on gender, but this was not a main aim of the study. In addition, some responses used race as their answer, but this was in the question.
- (b) There were a variety of responses presented here. Some responses could clearly outline one result with common answer focusing on same-race helping or the result about white helpers. Some responses focused on a comparison across conditions, but this was not the demand of the question so could not gain credit. To improve, candidates need to know all of the main results from all core studies to be able to present them as part of responses to questions like this.
- (c) There were many correct responses to this question. Common choices included 'it is for men to help' and 'I am not strong enough'. There were a significant minority of responses that produced comments not recorded in the study itself, rather ones that could have been said by participants.

Question 3

- (a) Features are anything related to the sample, for example, characteristics, sample size, sampling technique. Many responses could identify two features of the sample, often missing out on a third correct feature. Common choices included mean age and that they were volunteers.
- (b) For this type of question, responses must contain two parts. The first is the 'what' – what real-world application could be. The second is the 'how' – how will the real-world application be achieved in an ethical way. Common responses included changing the diets of 'fussy eaters' or helping to improve the lifestyle of people with obesity with a better diet.

Question 4

- (a) This question, with **Question 4(b)(i)** and **Question (b)(ii)**, was a good example of how it is beneficial for candidates to read all questions that are the same number first before answering (in this case, all of **Question 4**). This can improve the responses to later part questions, and this was evident here. Stronger responses could clearly outline one assumption with an appropriate example. Common choices included conditioning and Social Learning. Some responses used Pepperberg as the example and could not gain credit. Some responses covered assumptions from a different approach to psychology.
- (b)(i) Candidates were required to present a finding from the study and then explicitly explain how it relates to the assumption they presented in **Question 4(a)**. Stronger responses could do this by presenting a key finding from the study by Pepperberg and then clearly relating back to the

assumption presented in **Question 4(a)**. Popular choices included test results and how Alex the parrot responded well to the model/rival technique.

- (ii) Candidates were required to present a finding from the study and then explicitly explain how it went against the assumption they presented in **Question 4(a)**. There were few responses that could complete both part requirements. Stronger responses could outline a finding, for example, Alex the parrot's performance using novel objects, and then link it back to the response to **Question 4(a)**. Many responses described irrelevant aspects of the study not linked to the learning approach.

Question 5

- (a) There were many correct responses to this question. However, there were many responses that were blank. Common incorrect responses included button phobia and autism.
- (b) Common creditworthy points focused on the numerical scale used and what it was used for. However, there were many tautological responses stating that it measured 'feelings' but this could not be credited as it was in the question.
- (c) There were many responses that could identify a creditworthy strength of the study. Common choices included reliability, ethics, the in-depth nature of case studies, and the use of quantitative data. However, there were fewer responses that were awarded the second mark because the response did not have an example from the study itself as required by the question. It is important for responses to be contextualised when 'this study' appears in the question to gain the second available mark.

Question 6

To improve responses to this type of question, candidates must focus on the part of the study that is highlighted in the question. Candidates are required to know the full procedure of all core studies, but questions can focus on part of a procedure. Stronger responses could clearly present a logical procedure between the two 'time points' noted in the question. However, there were many responses that covered other aspects of the procedure. These included the aggression arousal part of the study and the observation of the children for examples of delayed imitation. Both of these happened after the part of the procedure highlighted in the question.

Question 7

- (a) Some responses could clearly describe how the words had been chosen prior to the main study. Common correct responses included the use of judges and the criteria set out by Baron-Cohen et al. for a word to be chosen or rejected. Common incorrect responses tended to focus on the use of four words instead of two words, but this was not how the target words were chosen, this was about how many were used in the main study.
- (b) Characteristics are the participant variables that are presented by the sample. Common correct responses included gender, diagnosis status and the mean age. There were many responses that re-stated what was in the question, or presented features of the sample like sampling technique or incorrect information.

Question 8

- (a) Some responses could attempt to explain one way in which the presented research differed from Canli et al. There were two ways in which the research differed (sample and imagery used). To improve responses to this type of question, the candidate must identify the way in which the presented study differs from the core study. Then, the candidate must explicitly explain how it is different. For example, if the candidate correctly identifies that only females were used in Canli et al. then to gain the second available mark they must explicitly state that this is different to the presented study as that used both males and females. The Examiner cannot award the second mark otherwise as we need to see the logic presented by the candidate (we cannot implicitly make the link). This was the same for the imagery.

- (b) Stronger responses could clearly explain one similarity and one difference. Both Dement and Kleitman and Schachter and Singer were used equally across correct responses. However, there were several responses that chose studies from a different approach. Popular choices to compare the studies on included the apparatus used, the sample including features and characteristics, the use of quantitative data, and ethics. To improve responses to this type of question, candidates need to choose comparison points that can be developed, using examples from both studies to explain the similarity and/or difference. For example, explaining the different samples can focus on the characteristics and/or sampling technique and allows for a detailed response. However, stating that each study had a different aim does not allow the response to be detailed.

Question 9

The strongest responses evaluated the study by Yamamoto et al. in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of quantitative data. Common choices included types of data collected, reliability, validity, generalisability, and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the study by Yamamoto et al. to explicitly support their point. These answers tended to score Level 4 marks.

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 study by Yamamoto et al. 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 did not reach the top band. Candidates need to know that any description of the study does not gain credit in these type of questions as it is testing their evaluation skills only.

Some candidates were following a GRAVE approach to this question (Generalisability, Reliability, Application, Validity, Ethics). Therefore, some responses were prepared essays for Yamamoto et al. without one of their points being about quantitative data. A response that fails to have one evaluation point about the named issue can only score limited credit. There were many responses that briefly outlined strengths and weaknesses with only some being in context, which is a Level 2 response. Any response that has no context cannot get above a Level 1 mark. In addition, many responses did use quantitative data in an evaluative sense but did not fully explain why it could be a strength and/or a weakness. Stronger responses could identify the potential strength of ease of comparison or objectivity. This then made that evaluative point 'in detail'.

Several responses did not cover the named issue, only describing what quantitative data are or incorrectly evaluated the named issue by giving strengths/weaknesses of qualitative data. To improve on this question, candidates need to plan carefully, choosing two strengths and two weaknesses with one of these being the named issue. Each strength and weakness should be of equal length with an explanation as to why it is a strength or weakness with examples from the study to show clear understanding. These are the requirements for a Level 4 response.



PSYCHOLOGY

Paper 9990/12
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Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit.

Candidates need to appreciate the difference between features of a sample and characteristics of a sample. Characteristics are the participant variables that are presented by the sample, whereas features are anything related to the sample, for example, characteristics, sample size, sampling technique etc.

Candidates also need to engage with any stimulus material presented in a question (for example, a novel situation) to ensure they can access all available marks. In addition, when a question refers to 'in this study' the answer requires contextualisation with an explicit example from that study.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is based on the particular core study and how this could be achieved. This must be explicitly made clear by the candidate.

Candidates need to appreciate the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study.

Candidates also need to know the set procedure of studies in the order presented in the original journal article. Questions can be based around just *part* of a procedure and the candidate must be able to produce an answer that is directed and concise rather than writing about the whole of the procedure. This can sometimes mean a candidate may run out of time for other questions.

There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. 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.

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 to real-world behaviours in terms of what and how.

Comments on specific questions

Question 1

- (a) Many responses to this question were correct (40). A common incorrect answer was stating the number of participants who gave 450 volts.
- (b) The majority of responses could state the correct voltage level.
- (c) There were responses to this question that were awarded two marks. Common correct responses included the 45-volt shock being given and how this was completed by pressing a button on the shock generator. There was a significant minority of responses that described the instructions given to the participant when the learner got a word pair incorrect.

Question 2

- (a) Many responses could clearly outline at least one part of the definition used by Bandura et al. Correct responses had to focus on what Bandura et al. operationalised, including that it was children imitating and that the model produced the verbal aggression.
- (b) Many responses could clearly identify two examples. Popular choices included 'sock him' and 'pow'. There were a number of responses that did not provide imitative verbal aggression, but other types of verbal responses shown to the Bobo doll.
- (c) There were many correct responses to this question. Common choices included a gender comparison. It is important for candidates to know what the results are for each core study. In this example, the mean scores are presented for aggressive gun play. However, some responses were stating that more boys produced aggression. This is not reported in the original journal article so it cannot gain credit.

Question 3

- (a) Features are anything related to the sample, for example, characteristics, sample size, sampling technique. Many responses could identify two features of the sample, often missing out on a third correct feature. Common choices included sampling technique, not diagnosed with AS/HFA and the mean IQ.
- (b) For this type of question, responses must contain two parts. The first is the 'what' – what real-world application could be. The second is the 'how' – how will the real-world application be achieved in an ethical way. Common responses included using the eyes test as a diagnostic tool and using the eyes test to help people understand emotions better in the classroom.

Question 4

- (a) This question with **Question 4(b)** was a good example of how it is beneficial for candidates to read all questions that are the same number first before answering (in this case, all of **Question 4**). This can improve the responses to later part questions, and this was evident here. Stronger responses could clearly outline two assumptions with appropriate examples. Common choices included conditioning and Social Learning. Some responses used Saavedra and Silverman as the example and could not gain credit. Some responses covered assumptions from a different approach to psychology.
- (b) Candidates were required to present a finding from the study and then explicitly explain how it relates to the assumption they presented in **Question 4(a)**. Stronger responses could do this by presenting a key finding from the study by Saavedra and Silverman and then clearly relating back to the assumption presented in **Question 4(a)**. Popular choices included the ratings of distress changing and the use of hugs from his mother to help him overcome the button phobia. There were several responses that attempted to link the presented finding back to a different assumption.

Question 5

- (a) There were many correct responses to this question. However, there were a significant minority of responses that answered how they woke them up in general using a doorbell.
- (b) There were very few correct responses to this question. Many repeated the stem of the question without adding any extra detail. Other responses focused on the overall results for dream-duration estimates or wrote about dream content. It is important for candidates to know all key results from any core study.
- (c) There were many responses that could identify a creditworthy strength of the study. Common choices included reliability, ethics, internal validity, and the use of quantitative data. However, there were fewer responses that were awarded the second mark because the response did not have an example from the study itself as required by the question. It is important for responses to be contextualised when 'this study' appears in the question to gain the second available mark. In addition, it is necessary to state why something is a strength in these types of questions. Simply stating it collected quantitative data or is had a high level of control cannot gain any marks. Outlining why it is a strength allows an Examiner to award the first mark. For example, the study had a high level of control so this improves the (internal) validity of the study would gain the first mark. Using an example from the study to show this would then gain the second mark.

Question 6

To improve responses to this type of question, candidates must focus on the part of the study that is highlighted in the question. Candidates are required to know the full procedure of all core studies, but questions can focus on part of a procedure. Stronger responses could clearly present a logical procedure between the two 'time points' noted in the question. However, there were many responses that covered other aspects of the procedure. These included the completion of the Food History Inventory (in the question) and Restaurant Questionnaire. Both of these happened after the part of the procedure highlighted in the question.

Question 7

- (a) Some responses could clearly describe the model/rival technique as used in the study. Common descriptions included presenting a second human with objects and rewarding them for a correct answer. There were some responses that confused the technique and claimed that the rewards and punishments were given to Alex the parrot rather than the second human. Other responses gave results based on the technique but could not gain credit as it was not answering the question.
- (b) Stronger responses were able to clearly describe the role of the secondary trainer. Common descriptions included presenting Alex with objects, asking set questions then giving a reward to Alex the parrot for correct completion of a task. Several responses confused the secondary trainer with the primary trainer and could therefore gain no credit. It is important for candidates to take their time to comprehend what the question is asking before responding.

Question 8

- (a) Some responses could attempt to explain one way in which the presented research differed from Piliavin et al. There were two ways in which the research differed (research method and a result). To improve responses to this type of question, the candidate must identify the way in which the presented study differs from the core study. Then, the candidate must explicitly explain how it is different. For example, if the candidate correctly identifies that Piliavin et al. was a field experiment then to gain the second available mark they must explicitly state that this is different to the presented study as that used a laboratory setting. The Examiner cannot award the second mark otherwise as we need to see the logic presented by the candidate (we cannot implicitly make the link). This was the same for the result about different race helping.

- (b) Stronger responses could clearly explain one similarity and one difference. Popular choices to compare the studies on included the ethics, the sample, the collection of quantitative data, and the use of a stooge. To improve responses to this type of question, candidates need to choose comparison points that can be developed, using examples from both studies to explain the similarity and/or difference. For example, explaining the different samples can focus on the characteristics and/or sampling technique and allows for a detailed response. However, stating that each study had a different aim does not allow the response to be detailed.

Question 9

The strongest responses evaluated the study by Schachter and Singer in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of quantitative data. Common choices included types of data collected, reliability, validity, generalisability, and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the study by Schachter and Singer to explicitly support their point. These answers tended to score Level 4 marks.

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 study by Schachter and Singer 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 did not reach the top band. Candidates need to know that any description of the study does not gain credit in these type of questions as it is testing their evaluation skills only.

In addition, some candidates were following a GRAVE approach to this question (Generalisability, Reliability, Application, Validity, Ethics). Therefore, some responses were prepared essays for Schachter and Singer without one of their points being about quantitative data. A response that fails to have one evaluation point about the named issue can only score limited credit. There were many responses that briefly outlined strengths and weaknesses with only some being in context, which is a Level 2 response. Any response that has no context cannot get above a Level 1 mark. In addition, many responses did use quantitative in an evaluative sense but did not fully explain why it could be a strength and/or a weakness. Stronger responses could identify the potential strength of ease of comparison or objectivity. This then made that evaluative point 'in detail'.

Several responses did not cover the named issue, only describing what quantitative data are or incorrectly evaluated the named issue by giving strengths/weaknesses of qualitative data. To improve on this question, candidates need to plan carefully, choosing two strengths and two weaknesses with one of these being the named issue. Each strength and weakness should be of equal length with an explanation as to why it is a strength or weakness with examples from the study to show clear understanding. These are the requirements for a Level 4 response.



PSYCHOLOGY

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Key messages

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Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit.

Candidates need to appreciate the difference between features of a sample and characteristics of a sample. Characteristics are the participant variables that are presented by the sample, whereas features are anything related to the sample, for example, characteristics, sample size, sampling technique etc.

Candidates also need to engage with any stimulus material presented in a question (for example, a novel situation) to ensure they can access all available marks. In addition, when a question refers to 'in this study' the answer requires contextualisation with an explicit example from that study.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is based on the particular core study and how this could be achieved. This must be explicitly made clear by the candidate.

Candidates need to appreciate the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study.

Candidates also need to know the set procedure of studies in the order presented in the original journal article. Questions can be based around just part of a procedure and the candidate must be able to produce an answer that is directed and concise rather than writing about the whole of the procedure. This can sometimes mean a candidate may run out of time for other questions.

There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. 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.

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 to real-world behaviours in terms of what and how.

Comments on specific questions

Question 1

- (a) Many responses to this question were correct (5 years).
- (b) The question referred to the Behavioural Exposures program (4 sessions) and not the Imagery Exposure program (3 sessions). There were many incorrect responses.
- (c) There were responses to this question that were awarded two marks. Common correct responses included the imagination part of the sessions, being asked how he felt about buttons and the progression from larger to smaller buttons. Some responses gave results of the sessions, but this was not what the question was about.

Question 2

- (a) Many responses could clearly outline one aim of the study. The most common response focused on the concept of same and different. A few responses provided a conclusion rather than an aim which was not creditworthy.
- (b) Many responses could outline a trend in results on this type of test using Alex the parrot. However, many responses could not provide the correct data as required by the question. It is important that candidates know the key results from all core studies. Data is important as it allows conclusions to be drawn about what happened in a study and what it means.
- (c) There were many responses that could identify an important animal ethical guideline. The majority of these responses could then link it to the study by Pepperberg, outlining its importance. Popular choices included housing and numbers. There were a significant minority of responses that used a human ethical guideline (for example, informed consent or debriefing) which could not gain credit. To improve on this type of question, candidates need to be able to differentiate between guidelines for the use of animals and guidelines for the use of humans.

Question 3

- (a) Features are anything related to the sample, for example, characteristics, sample size, sampling technique. Many responses could identify two features of the sample, often missing out on a third correct feature. Common choices included sample size, that they were adults and having to refrain from caffeine/alcohol.
- (b) For this type of question, responses must contain two parts. The first is the 'what' – what real-world application could be. The second is the 'how' – how will the real-world application be achieved in an ethical way. Common responses included using the study to help diagnose sleep disorders and using the study to help with a range of sleep-related problems.

Question 4

- (a) This question with **Question 4(b)** was a good example of how it is beneficial for candidates to read all questions that are the same number first before answering (in this case, all of **Question 4**). This can improve the responses to later part questions, and this was evident here. Stronger responses could clearly outline two assumptions with appropriate examples. Common choices included computer analogy and the role of specific cognitive processes. Some responses covered assumptions from a different approach or attempted to describe studies from the cognitive approach without any reference to an assumption.
- (b) Candidates were required to present a finding from the study and then explicitly explain how it relates to the assumption they presented in **Question 4(a)**. Stronger responses could do this by presenting a key finding from the study by Andrade and then clearly relating back to the assumption presented in **Question 4(a)**. Popular choices included the performance on the monitoring tasks and the act of doodling helping cognitive functioning. There were several responses that attempted to link the presented finding back to a different assumption.

Question 5

- (a) There were many correct responses to this question. Popular choices included brush and belt. A few responses named stick or straw, but these were in the question.
- (b) There were some correct responses to this question. These tended to be able to show that Pan was an anomaly and failed to provide a tool in most trials. It is important that candidates know the key results from all core studies. Data is important as it allows conclusions to be drawn about what happened in a study and what it means.
- (c) There were many responses that could identify a creditworthy strength of the study. Common choices included reliability, ethics, internal validity, and the use of quantitative data. However, there were fewer responses that were awarded the second mark because the response did not have an example from the study itself as required by the question. It is important for responses to be contextualised when 'this study' appears in the question to gain the second available mark. In addition, it is necessary to state why something is a strength in these types of questions. Simply stating it collected quantitative data or is had a high level of control cannot gain any marks. Outlining why it is a strength allows an Examiner to award the first mark. For example, the study had a high level of control so this improves the (internal) validity of the study would gain the first mark. Using an example from the study to show this would then gain the second mark.

Question 6

To improve responses to this type of question, candidates must focus on the part of the study that is highlighted in the question. Candidates are required to know the full procedure of all core studies, but questions can focus on part of a procedure. Stronger responses could clearly present a logical procedure between the two 'time points' noted in the question. However, there were some responses that covered other aspects of the procedure, parts of Experiment 1 or other aspects of the study like the results or the sample of participants.

Question 7

- (a) Many responses could identify at least two features of the experimenter in the study. Popular choices included being male, giving prods and wearing a laboratory coat. There were some responses that gave features of Mr. Wallace which could not gain credit.
- (b) There were very few responses that were awarded credit. It is important that candidates know about every part of each core study. The information that was provided to participants in this part of the study is an integral part of how the study was run and why obedience was high. It was evidence that very few candidates knew about this part of the study with many responses focusing on the participant meeting the stooge, Mr. Wallace.

Question 8

- (a) Some responses could attempt to explain one way in which the presented research differed from Bandura et al. There were two ways in which the research differed (methodology and a result). To improve responses to this type of question, the candidate must identify the way in which the presented study differs from the core study. Then, the candidate must explicitly explain how it is different. For example, if the candidate correctly identifies that Bandura et al. used a live model then to gain the second available mark they must explicitly state that this is different to the presented study as that used a violent television programme. The Examiner cannot award the second mark otherwise as we need to see the logic presented by the candidate (we cannot implicitly make the link). This was the same for the result about less likely to be aggressive.

- (b) Stronger responses could clearly explain one similarity and one difference. Both Pepperberg and Saavedra and Silverman were used equally across correct responses. However, there were several responses that chose studies from a different approach. Popular choices to compare the studies on included the use of a model, the sample including features and characteristics, the use of quantitative data, and ethics. To improve responses to this type of question, candidates need to choose comparison points that can be developed, using examples from both studies to explain the similarity and/or difference. For example, explaining the different samples can focus on the characteristics and/or sampling technique and allows for a detailed response. However, stating that each study had a different aim does not allow the response to be detailed.

Question 9

The strongest responses evaluated the study by Schachter and Singer in depth and in terms of two strengths and two weaknesses with at least one of these points covering the named issue of ethics. Common choices included types of data collected, reliability, validity, generalisability, and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the study by Schachter and Singer to explicitly support their point. These answers tended to score Level 4 marks.

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 study by Schachter and Singer 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 did not reach the top band. Candidates need to know that any description of the study does not gain credit in these type of questions as it is testing their evaluation skills only.

In addition, some candidates were following a GRAVE approach to this question (Generalisability, Reliability, Application, Validity, Ethics). Therefore, some responses were prepared essays for Schachter and Singer without one of their points being about ethics as the four points were from GRA and V. A response that fails to have one evaluation point about the named issue can only score limited credit. There were many responses that briefly outlined strengths and weaknesses with only some being in context, which is a Level 2 response. Any response that has no context cannot get above a Level 1 mark. In addition, many responses did use quantitative in an evaluative sense but did not fully explain why it could be a strength and/or a weakness. Stronger responses could identify the potential strength of ease of comparison or objectivity. This then made that evaluative point 'in detail'.

Several responses did not cover the named issue, only describing an ethical guideline. To improve on this question, candidates need to plan carefully, choosing two strengths and two weaknesses with one of these being the named issue. Each strength and weakness should be of equal length with an explanation as to why it is a strength or weakness with examples from the study to show clear understanding. These are the requirements for a Level 4 response.



PSYCHOLOGY

Paper 9990/21
Research Methods

Key messages

This question paper asks candidates to answer a range of questions, including ones about the core studies, in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. These types of questions require candidates to use a variety of skills, some of which were not shown in many of the candidate responses. Candidates should be encouraged to prepare for each of these skills, especially for demonstrating knowledge of concepts and the application of this knowledge.

Ability to apply knowledge and understanding to novel scenarios is essential to help candidates to successfully complete this paper. This skill can help candidates in two ways:

Candidates should be able to apply research methods, terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data. Candidates should be aware of questions which require a link. When a question includes 'in this study', or makes a direct reference to the scenario, responses should go beyond simply describing or evaluating, the answer must also be contextualised in a relevant way. Practice could help candidates to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.

Question 10 in this paper requires candidates to produce an original design for a novel research question. This 'creative' process requires practice and it is, therefore, important that candidates understand the basic research methods well and that they respond to the question by using the method stipulated by the question. Furthermore, to learn to identify flaws in a design (whether their own, as in **Question 10**, or one from a novel scenario, for example, in **Section B**) candidates should have had the experience of practical problems in conducting studies. This is a high-level skill and can be developed through practical work with designing and conducting small studies in class, or through practice with novel scenarios. Candidates should be familiar with the overall structure of **Question 10(a)**, which can be closely tailored to requirements of an individual question, such as the required research methods and the scenario.

General comments

In general, candidate responses achieved marks across the whole range of available marks for this paper. However, very few responses consistently and accurately demonstrated knowledge and understanding, or achieved the additional marks for linking the response to the scenarios, thus limiting marks achieved overall. Nevertheless, some of the candidate responses showed a good grasp of a range of psychological concepts and, therefore, achieved the basic marks.

Candidate responses overall demonstrated some knowledge of a range of aspects of research methods in this paper. Successful responses were seen to the more straightforward questions, such as **Questions 2(a) 2(b), 3(a), 3(b) 4, 5, 6, 7(b)(i), 8(a) 8(b), 8(c) and 9**, while the more demanding questions, such as **Questions 1(a), 1(b), 7(a), 7(b), 7(c), 7(d)**, were answered less successfully. This examination tested a cross-section of psychological skills, which some of the candidate responses had limited success in demonstrating.

Questions 1(a), 3(a), 5, 6, 7(a) 8(a) and 8(b) required candidates to show an accurate knowledge and understanding. In such questions, covering, for example, concepts like reliability, **Question 1(a)**, random sampling, **Question 5**, and correlations, **Question 7**, candidate responses often showed some knowledge but then showed limited understanding required to explain the idea in question **parts (b) or (c) or (d)**.

Some of the questions required a link, for example, to a study. These included **Questions 1(b), 4, 7(a), (b), (c) and (d), Question 8 (a), (b) and (c)** where candidate responses sometimes achieved partial marks for an initial identification of a relevant fact, such as identifying reliability in **Question 1(a)**, but then needed to relate this to the Pepperberg study mentioned in the stem.

Question 10 was sometimes well answered, although responses often focused on a method other than the required laboratory experiment. This meant that the valuable time was used unnecessarily, and, as a consequence, the response lacked the necessary relevant detail to achieve higher credit. The essential features of the named method, in this instance IV, DV and controls, needed to feature prominently in answers.

Comments on specific questions

Section A

Question 1

- (a) This question required a definition of reliability and although some answers correctly stated that it is the consistency of a procedure/task/measure, many candidate responses showed confusion. Some candidates, for example, stated that it means being trustworthy. This is incorrect. Other candidates confused reliability with a study being replicated or repeating a study and getting the same results. The only instance where repeating a study is acceptable is where the procedure/task/measure produces the same results *with the same people* each time.
- (b) For the first available mark, candidate responses needed to state how one feature of the procedure helped to make the Pepperberg study reliable. For the second mark a link to the Pepperberg study was required. To achieve marks several answers were possible, one of which was 'having standardised questions' (1 mark) with the link being 'the questions asked were always phrased 'what's same?' or 'what's different?' (2 marks).

Question 2

- (a) Candidates who read the stem, about the Andrade study, had little difficulty in answering this question part. Other candidates appeared not to read the stem struggled to achieve marks as they tried to explain an uncontrolled variable of their choice. For the majority, stating that 'it lowers validity' scored 1 mark, with a reason why this was so available for the second mark. Most candidates stated that 'it would mean that people with friends of the same name will recall better' and so the second mark was achieved.
- (b) When the command word of a question asks for a *suggestion*, the required skill is to show thinking and understanding rather than the recalling of a pre-prepared answer. In this instance many answers suggested an appropriate solution and many often included additional detail which enabled the second mark to be awarded. A typical answer was 'eliminate people with friends of the same name' (1 mark) 'by interviewing them after the study' (2 marks).

Question 3

- (a) This question required a definition of a case study. Two features were acceptable for two marks, namely that it is a study of one instance (one person) and that the study is done in detail or in depth. Other answers scored no marks. For example, some answers made the claim that a case study is longitudinal, but not all case studies are longitudinal. In addition, some answers stated that a case study gathers 'lots of data' but many other studies also gather lots of data, which is different from data that is in-depth.
- (b) A description of a case study (such as one person) was required but many answers incorrectly suggested gathering groups of participants, which scored no marks. Answers scoring top marks suggested using a volunteer sample to acquire a colour blind participant (1 mark) and then to present them with red and green coloured objects (2 marks) and ask them what colours they see (3 marks).

Question 4

- (a) This question required a strength (of collecting quantitative data) for one mark and then a link to the Yamamoto study for a further mark. Nearly all answers achieved one mark for stating that 'quantitative data is numerical' or 'numbers can easily be analysed/compared'. For the second mark answers often referred to 'the measure of helping by each chimp'.

Question 5

- (a) This question required a weakness of random sampling. Some answers claimed that it was time consuming, but this only achieved marks if an explanation of why it is time consuming was provided. Other candidates suggested that the sample might be restricted and again marks were awarded if there was an explanation of how the sample was restricted, such as a random sample of candidates of one school may not be representative of all schools, for example.

Question 6

This question required a description of structured and unstructured observations. Answers were of three types:

- Those where both observations were correctly described in detail and were supported with appropriate examples. For example: a structured observation is where there is a checklist of behavioural categories such as the Bandura et al. study looking for imitative physical aggression or the Piliavin et al. study looking for the speed of helping behaviour. This type of answer often achieved full marks.
- Answers where the observations were vaguely outlined with a general supporting example.
- Those where the observations were not known. Many answers confused structured observation with controlled observation and sometimes with overt observation. This type of answer scored no marks.

Question 7

- (a) Many answers correctly opted for a non-directional hypothesis, but to score the available mark a reason for this choice was needed. Many candidates did state a reason, the perfect answer being 'Kira should choose a non-directional hypothesis because she does not know whether there will be a positive or a negative correlation'. Many answers opted for a directional hypothesis which is incorrect.
- (b) Many answers correctly stated that 'as the amount of creativity went up, the amount of time spent playing sport would go down' and the reverse of this would also achieve the available mark. Some answers incorrectly stated that a negative correlation is the same as no correlation,
- (c) Correct answers were null, were correctly worded, and involved Kira's variables. For example: There will be no correlation (or relationship) between time spent playing sport and level of creativity.
- (d) Some answers achieved a partial mark when writing 'No, because a correlation cannot demonstrate a causal relationship' whereas answers linked to Kira, by adding 'because creativity could cause people to play more sport, or playing more sport could reduce creativity' achieved full marks. Many answers incorrectly wrote that because a strong correlation was found Kira would know that one variable caused the other.

Question 8

Question parts (a), (b) and (c) were linked to the stem of Ruth interviewing wedding guests.

- (a) Many answers did not achieve marks because the wording of their open question was incorrect. Open questions should never be worded so the answer could be just one word. For example, asking 'how did you feel about being a wedding guest?' is incorrect because it could lead to a one word answer of 'happy'. Questions should always be worded to lead to a more detailed answer. Adding the command 'describe' to the open question, or using 'explain why' would be sufficient. For example, 'Describe how you felt about being a wedding guest' achieved full marks.



- (b) Many answers did not achieve full marks because the wording of the closed question was incorrect. A closed question should always include what the 'closed' part involves rather than being left open. Asking 'How did you feel about being a wedding guest' could be an open question, but asking 'How did you feel about being a wedding guest: were you happy or sad?' is closed because there are only two possible answers. Many answers were of the latter type and achieved full marks.
- (c) Three marks were available for this question and there were several ways in which it could be answered. One way was to outline a relevant ethical guideline (1 mark) and then to explain it in further detail (2 marks) or to outline two relevant guidelines for 2 marks. To achieve the third mark the answer needed to be related to Ruth and her wedding guests. Notably informed consent is the guideline, not consent.

Question 9

- (a) (i) Many answers achieved full marks for three explanations of why the three features identified by Jabir were relevant. For example, in response to the feature of whether they belonged to a group or club, stating 'because it suggests that they might be more social' is an appropriate answer and achieved 1 mark. Equivalent answers led to marks being achieved for the other two features.
- (ii) Jabir had to use a volunteer sample and this question was allocated three marks. A correct, full mark answer was 'Jabir advertised in a magazine (1 mark) read by old people (2 marks) asking for people to participate in a study on social life and friendships (3 marks). Marks were not achieved by answers which involved Jabir asking people to participate (that would be an opportunity sample), answers which advertised for participants but were not aimed at old people, or answers which did not link the advertisement to social lives or friendships.
- (iii) In order for the available mark to be achieved, it was necessary to outline the reason why people may be excluded. It was not sufficient to state 'exclude people with memory problems' (for example), the specific reason for exclusion was required which might be 'because they cannot accurately recall their friendships'.
- (b) Many answers scored full marks for their suggestions. Correct answers included: 'a person that can be trusted', 'a person that has been known for many years' and 'a person you hang-out with on a regular basis'. Some answers incorrectly defined the DV and scored no marks.
- (c) Many answers incorrectly focused on Jabir analysing data in two days rather than the participants only having two days to respond to the questionnaire and how these responses would affect the validity of the answers.
- (d) Many answers achieved full marks for stating a weakness of using a questionnaire. Many answers included detail about participants giving socially desirable answers, or telling lies (1 mark) to make themselves look better by suggesting they had more friends/a social life than they really had (2 marks) which would reduce the validity of the findings (3 marks).

Question 10

- (a) Many excellent answers achieved full marks by including all the relevant 'major' features and a range of relevant 'minor' features. As the question required a laboratory experiment to be conducted, major features included an IV (seeing or hearing a list) a DV (such as recall of the list) and controls (such as time allowed to study the list). The minor features included where the study would be conducted and who the participants would be. In addition, other features worthy of credit included the experimental design (repeated or independent), sampling technique, ethical issues, and how the data could be analysed. Some answers did not focus on hearing and seeing words (and so marks could not be awarded) or the IV or DV or both were excluded. Some answers used questionnaires or interviews to gather data, and this was acceptable, but it should not be included at the expense of the major features of a laboratory experiment.
- (b) Some answers correctly stated that a laboratory is an artificial situation and resolved this weakness by suggesting the study be conducted in a more natural environment. Other answers planned to use a repeated measures design in **part (a)** and so suggested using an independent measures design as a way of resolving order effects resulting from the repeated design. Many answers did not consider a limitation of the procedure and a number of answers incorrectly focused on ethics or sampling aspects.

PSYCHOLOGY

<p>Paper 9990/22 Research Methods</p>

Key messages

- This research methods paper asks candidates to answer a range of questions, including ones about the core studies in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. Such questions require different skills, some of which presented difficulties for many candidates. Candidates should be encouraged to prepare for each of these skills, especially recalling concepts and the application of this knowledge.
- Applying knowledge and understanding to novel scenarios is important to success on this paper. This could have helped candidates in two ways:
 - Candidates needed to be able to apply research methods terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data
 - Candidates must take note of questions which indicate the need for a link. When a question says 'in this study', or makes direct reference to the scenario, responses must go beyond simply describing or evaluating, they must contextualise the answer in a relevant way. Candidates therefore need to be prepared for questions using this format and practice can help them to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.
- It is important that candidates understand the basic research methods well and that they respond to the question by using the method stipulated by the question. Furthermore, to learn to identify flaws in a design (whether their own, as in **Question 10**, or one from a novel scenario for example in **Section B**) also relies on having had experience of practical problems in conducting studies. This is a high-level skill and is most readily developed through practical work with designing and conducting small studies in class or through practice with novel scenarios. It may be helpful to prepare candidates by using past papers.

General comments

Candidates were able to access marks across the whole paper. However, not all were able to accurately and consistently demonstrate knowledge and understanding or to access the additional marks for linking their response to the scenarios, thus limiting performance as a whole.

Candidates across the ability range were able to demonstrate some knowledge of a range of aspects of research methods in this paper. Success was greater on some straightforward questions such as **Questions 1(a), 1(b), 7(a)(i), 7(b) and 8(c)**, than on more demanding ones, such as **Questions 7(a)(ii), 7(c)(i/ii) and 10**. However, there were also some more straightforward questions which candidates found challenging, such as **3, 8(b)(i) and 9(b)**.

Where questions required a link, for example to a study, candidates were often able to earn partial marks for an initial identification of a relevant fact, such as identifying the experimental design in **Question 8(c)**, but were then unable to relate this to the information in the stem.

Question 10 was sometimes well answered although responses often lacked any indication of the nature of the data collected or how it could be analysed or interpreted – an essential part of a case study. Such responses therefore lacked necessary relevant detail.

As a general point, candidates can always make use of blank paper within the booklet or on extra pages but it is advisable to indicate this at the end of a response that is continued. All pages are checked but on occasions it is difficult to establish to which question extra material belongs.

Comments on specific questions

Section A

Question 1

- (a) This question part was generally well answered by most candidates. However, a common mistake was to state what an open question is not, rather than what one is, such as 'It is a question with no fixed choices'.
- (b) This question part was also well answered by most candidates, with simple answers such as 'describe your dream' being effective responses. A small number of candidates responded with examples of closed questions, so did not earn credit here.

Question 2

- (a) Many candidates scored two marks on this question part although others said the sample contained males and females or gave details of the tests, rather than the sample.
- (b) A significant number of candidates did not provide a correct response here. Although the majority of responses related to sampling, candidates frequently provided only one correct sampling technique, so had not fulfilled the requirement of stating a difference. Common mistakes were to say that Group 1 was volunteer sampling and Group 4 was opportunity sampling, or that Group 1 was opportunity sampling and Group 4 was random sampling. Other candidates gave differences that did not relate to *how* the groups were selected.

Question 3

Many candidates were unable to provide full mark answers. The reasons for this were varied. One common reason was that they provided examples for right to withdraw and deception but did not necessarily include an explanation for why these guidelines were broken in the study. This would have been apparent if they had provided a definition so that their examples illustrated how the study had failed to adhere to that guideline. In other responses, right to withdraw or deception were not clearly distinguished from informed consent. For other candidates, although the elements of the study had been recalled, the roles of the observer and stooge, or model, were confused.

In addition, there were also candidates who gave generic answers here, particularly for right to withdraw. It was necessary to make a link to the study for each issue.

Question 4

This question was attempted well by most candidates, with a range of differences suggested. Some candidates identified a difference but did not explicitly say what the effect of this difference might be. A small minority of candidates misread the question and applied the differences to other species of parrot.

Question 5

Few candidates scored full marks.

- (a) There were a small number of excellent answers to this question but on the whole this question was not well answered. Most candidates knew what a mean and what a mode was but struggled to explain why the mean might be better. Many responses regarding the mean referred to 'all the data' rather than 'all the values'. This is an important distinction. The mean, median and mode all make use of 'all' the data, albeit in different ways. However, the mean considers the individual values of each of the data points, whereas the mode does not.

Another common mistake was to simply describe how the mean is calculated, which was not answering the question. Nevertheless,

- (b) This question part was quite poorly answered with many candidates simply giving a brief description of the mode, so were not answering the question. However, there were some excellent answers referring to outliers or referring to data in categories.

Question 6

There were some good answers to this question with most candidates understanding the difference between the two types of observation, although there were some answers which referred to participant observation using phrases like ‘the researcher takes part in the study’ and non-participant observation as ‘the researcher is not part of the study’. Another frequent misunderstanding was to describe participant observation as being where the ‘observer is a participant’, which, as a stand-alone statement, is incorrect. A further problem for many candidates was a confusion between participant observation and overt observation and between non-participant observation and covert observation.

Piliavin was used frequently as an example of a participant observation, and both Milgram and Schacter and Singer were frequently erroneously described as participant observations. Bandura was the most common example of a non-participant observation.

Section B

Question 7

- (a) (i) Overall there was good understanding of what was meant by operationalise and there were some inventive answers (clothing, hair (or the lack of it), school uniform versus office wear etc.), although most simply identified two age groups. The most common reason for zero marks on this question part was to misidentify the independent variable, suggesting it was how busy trains were or time of day.
- (ii) Many responses to this question part gained only partial credit. For example, those candidates who identified age groups that ‘met’ such as under 40 and over 40 gave them little to discuss here, while identifying age groups that were far apart, such as under 25 and over 70 gave them more scope to discuss the strengths of this for the researchers. Those that identified other features for **part (a)(i)** were more likely to do well here as they were able to discuss the ease with which these factors could be observed.
- (b) This question part was generally answered well – the DV tended to be defined as the result of the manipulation of the IV, rather than a more simple ‘what is measured’. Most candidates also identified frustration as the DV. However, in many responses, this was confused by using the wording from the question, repeating the whole of ‘whether young or old people are more likely to become frustrated’. Nevertheless, many candidates achieved 2 mark answers here.
- (c) (i) Many candidates only offered partial responses here, commonly by identifying ‘standardisation’ or ‘reducing extraneous variables’, but not linking this to the question. Better responses continued to make this link, for example by saying what will be standardised, such as how busy the train is, or how reducing an extraneous variable will help, such as controlling tiredness so that it does not confound age.
- (ii) As with question **part (c)(i)**, there were many generic answers, such as ‘generalisability’, which was not taken further to explain the implications for this particular study.

Question 8

- (a) Some candidates gave good but generic answers and relatively few offered linked, 2 mark responses. Many of the answers to the question here were irrelevant, just saying that chocolate makes people happy. Other irrelevant responses suggested that she had looked at previous research.
- (b) (i) Many responses offered ‘random sampling’ rather than ‘random allocation’, so did not earn credit.
- (ii) Some good responses identified that the equal chance of being in either group reduced participant variables but only a small number of these linked this response explicitly to the study, i.e.

candidates were able to indicate the strength but struggled to explain it in a way that was linked to Jacy's study. Few candidates achieved the full 3 mark for their answers here.

- (c) This question part was generally well answered. The majority of candidates knew this was independent measures and most explained this clearly. Where candidates were able to correctly identify the experimental design but did not earn full marks, this was because their response was generic, i.e. they did not make explicit reference to the conditions of chocolate/no chocolate in order to relate their answer to Jacy's study, as required by the question.

Question 9

- (a) There was a wide range of marks here. Many candidates earned two marks (typically for axis labels and a line of best fit). Many made errors on the other available marks, such as by marking only one of the axes up to 10 (or using inappropriate numbering, such as 1–100) and in some cases no points were put onto the graph. A small number of candidates sketched a negative correlation or linked the points they had drawn directly as if drawing a line graph.

- (b) This question was not answered well. Many candidates used the word 'difference' or 'effect' suggesting a confusion between correlational and experimental hypotheses.

A second, but less common error, was to state the hypothesis as a result or conclusion.

- (c) There were many poor responses to the question. Many candidates simply gave a description of what a correlation does and did not identify an advantage of a correlation over an experiment. Some gave responses saying it was easier or cheaper, which is not a suitable response and not necessarily true. Very few candidates scored well on this question. Those that did tended to have identified the ability to study things that would be unethical to manipulate.

Section C

Question 10

- (a) There were some good answers here, with most candidates suggesting a combination of self report and observation. A small proportion of candidates suggested only one method of data collection. Candidates tended to get the marks for 'techniques used to collect data', typically with at least some detail and marks were easily often gained for the 'content' of data collected – such as observational categories or the specific wording of questions asked. Frequently, however, there was nothing relating to the way this data could be used, such as how questions could be interpreted or scored, analysing quantitative and qualitative data. Some candidates identified qualitative/quantitative data but did not address what they would do with the information they collected, and their marks on this question were limited. However, there were some very good responses here.

For other candidates to improve their marks, they could have mentioned how the qualitative or the quantitative would be analysed. In addition, candidates should ensure they are providing enough detail for their proposed study to be replicable, especially as case studies allow for many techniques which helped candidates score well on technique and relevant examples of questions they would include.

- (b) Most candidates scored well on social desirability and validity but often the answers were generic.

A number incorrectly referred to problems with sampling or ethics. There were quite a lot of generic answers with no explicit link to their study but also some very good answers here, making appropriate suggestions.

PSYCHOLOGY

<p>Paper 9990/23 Research Methods</p>

Key messages

- This paper asked candidates about a range of research methods' concepts. The responses of many candidates demonstrated a weak grasp of many such concepts. As these concepts could not be described or explained it was very difficult for many candidates to earn any credit on questions asking for evaluation or application. For candidates to succeed in direct questions asking for knowledge and then in the following, more challenging question parts, they must have the underlying basics to be able to use them. This grounding can only come from fundamentals of research methods.
- This research methods paper asks candidates a range of questions, including ones about the core studies in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. Such questions require different skills, some of which presented difficulties for many candidates. It is therefore essential that candidates are prepared for each of these skills, especially recalling concepts and the application of this knowledge.
- Applying knowledge and understanding to novel scenarios is important to success on this paper. This could have helped candidates in two ways:
 - Candidates needed to be able to apply research methods terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data.
 - Candidates must take note of questions which indicate the need for a link. When a question says 'in this study', or makes direct reference to the scenario, responses must go beyond simply describing or evaluating, they must contextualise the answer in a relevant way. Candidates therefore need to be prepared for questions using this format and practice can help them to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.

General comments

Candidates were able to access marks across some of the paper. However, very few were able to accurately and consistently demonstrate knowledge and understanding or to access the additional marks for linking their response to the scenarios, thus limiting performance as a whole.

Candidates across the ability range were able to demonstrate some knowledge of some aspects of research methods in this paper. Success was greater on some of the more straightforward questions such as **Questions 1(a), 1(b), 5(a), 8(a)(i) and 9(a)**, than on other straightforward (or more demanding ones) such as **Questions 3(a), 6, 8(b)(i) and 9(b)** (straightforward). This examination tested a cross-section of psychological skills and candidates showed limited success in almost all areas, including those requiring accurate knowledge and understanding (as listed above). These questions covered such concepts as ethics, random allocation, observations and correlations. When candidates did display knowledge, many lacked the understanding needed to explain or evaluate the idea. Similarly, with questions requiring an extension of an answer to provide a link, for example to a study, candidates were often unable to earn marks beyond an initial identification of a relevant fact. For example, in **Question 7(c) and 8(a)(ii)**.

Comments on specific questions

Section A

Question 1

- (a) This question part was generally well answered, with candidates using a wide variety of ways to express the essential point.
- (b) This question part was also well answered, again with a range of aims forming the basis of responses, including ones that related to the wider, general aim, or to the aim for specific elements of the study. Both approaches were equally acceptable.

Question 2

Many responses suggested that participants were tied into the fMRI so could not withdraw. Better answers were that it was a narrow tube so hard to get out.

Protection from harm was addressed more explicitly than right to withdraw although many candidates used the potential harm caused by a 'triggering' response without explaining this statement. Such minimal descriptions are inadvisable. With regard to the right to withdraw, many candidates simply said that participants were not given the right to withdraw (sometimes adding that this is because the study does not say this) or simply saying what right to withdraw is, but not addressing the question directly. Answers such as those described above could generally earn some credit, but not full credit. The best answers tackled each of the issues with an explanation of the issue and how each issue was raised by the Canli et al. study.

Question 3

- (a) This was not well answered. Many candidates gave responses that were unrelated to the concept of random allocation, with very few candidates gaining any marks. Some candidates suggested that 'allocation' had something to do with the implantation of a false (random) memory and others responded to the question in ways that suggested they thought this simply referred to sampling.
- (b) As a consequence of candidates in this cohort appearing not to understand this concept they could not explain its strengths, hence responses to **part 3(b)** typically scored zero marks. This illustrates the importance of a good grounding in the concepts of research methods.

Question 4

Candidates often gave vague answers here such as 'to see how the children would react' or 'to see if they would play with them after they had been told not to'. There were some better answers although very few 2 mark answers.

Question 5

- (a) Many candidates gained at least partial credit, although they did not always give enough information for full marks. There were, however, also a significant minority of incorrect answers.
- (b) Many candidates earned partial credit here but responses were often generic, lacking a link to the topic stated clearly in the stem – 'the topic of dreaming in deaf people' – and reiterated in both the studies described (those of Dr Kahlil and Dr Hart).

Question 6

This question was very poorly answered. There were many scripts with no response at all and where scripts did include a response, it was frequently irrelevant suggesting that the candidate were not able to demonstrate any understanding of the concepts of positive and negative correlations. Some candidates' responses referred to positive and negative reinforcement and they wrote lengthy answers about this. Others suggested that positive correlations were effects with good consequences for the individual or society, and that negative correlations had detrimental effects. Even when the meaning of 'positive' and 'negative' in this context was understood, the examples offered by candidates were often causal rather than correlation.

This illustrates the need for a good grounding in the concepts of research methods.



Section B

Question 7

- (a) (i) and (ii) There was a mixture of answers here – many candidates appeared to find these questions difficult. They were either left unanswered or the response was irrelevant. Typical incorrect responses related to the measuring of DVs in general, rather than answering the question asked. For example, many zero-mark responses said that it would allow the researcher to see the difference between the groups. Such responses do not provide an answer to the question, giving nothing about the specific strength of the measure.
- (ii) A small number of candidates gave good answers suggesting that the chosen measure ignores individual differences or other aspects of language learning, such as the ‘pressure of timing’ affects some people more than others, which suggests that this uncontrolled variable would lower the validity of timing, or the risk of some participants mishearing words.
- (b) There were some good responses to this question part, although they were not always explicit enough for 2 marks.
- (c) Few candidates performed well on this question part. Some identified the reduction of participant variables as a reason but were unable to link this explicitly to the study.

Question 8

- (a) (i) The concept of unstructured observations was generally understood by candidates. However, responses were often quite brief and general rather than being explicitly linked to the study.
- (ii) Responses were often general rather than being explicitly linked to the study.
- (b) (i) The concept of covert observation was poorly understood, with many apparent guesses such as ‘because following more rules’/‘because following less rules’, ‘focusing on one group’ or ‘more generalisable’. A small number of candidates provided good answers, such as ‘Covert observers are not seen, so those being tested would not alter their behaviour to look better, calmer or angrier just for his study.’
- However, more often, even when correct concept understood, the answer was generic, i.e. not related to aggression in sport. In addition, there was some confusion with participant/non-participant observation.
- (ii) Candidates often gave two or more different but basic reasons, such as ‘no right to withdraw so risk of harm’, without any link to the study and there was some confusion with participant/non-participant observation.

Question 9

- (a) Responses to this question part were generally good, but some questions were not about emotions so could not earn credit.
- (b) Some responses offered the start of a closed question but did not give response categories, so scored 0 marks and again, some suggested questions were not about emotions. Where candidates gave answers such as ‘On a scale of 1–10, how do you feel about...’ but did not say what the numbers meant this was given credit even though they were incomplete closed questions.
- (c) Responses were often generic, so where marks were earned they were often limited to partial credit.
- (d) This question part was not answered well. Some candidates gave correct, basic responses but others wrote about the ethical guidelines that had been broken rather than the ethical guidelines that could be used to overcome the problem.

Section C

Question 10

- (a) Many candidates' responses to this question were very short. Such limited answers were unlikely to cover the necessary ideas in sufficient detail for high marks. There were often no details about what exactly would be observed or measured, and very often no information that was relevant to where the study would be conducted or the researcher would work from, such as where an observer would be placed.

Some candidates focussed on aggressive behaviour rather than nice behaviour, so were unable to fulfil the requirements of the question.

- (b) There were some good answers to this question part, often focusing on the use of a single observer. However, there were also many incorrect responses focusing on ethical or sampling issues.



PSYCHOLOGY

Paper 9990/31
Specialist Options: Theory

Key messages

Question 1a, 3a, 5a and 7a –

For these questions candidates should write a brief response to achieve 2 marks. It is important that candidates are made aware of the terminology, concepts and treatments 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 in these type of questions. Creating a glossary of key terms, revision of terminology using paper-based or online flash cards class quizzes could prove useful. Where the response gave an example to help define the term this often achieved full marks.

Question 1b, 3b, 5b and 7b –

These questions could ask the candidate to describe a theory, study, self-report, treatment, etc. These questions could also ask the candidate to describe a part of one of the named studies, such as the procedure or the findings, or a summary of the key features of the study. This question is worth 4 marks and the candidates should write a more extended answer. It would be helpful for candidates to create a revision summary using a flashcard or mind map of each bullet point in the syllabus. The flashcard should be given the title used in the syllabus, for example, 'Cognitive explanation of phobias: Dinardo et al.', to help identify which part of the syllabus the question is referring to.

Questions 1c, 3c, 5c and 7c –

These questions could require the candidate to explain up to two strengths or weaknesses of what they have described in the **part b** of the question. The question could also ask the candidates to make a comparison or to evaluate using a specific issue such the use of children as participants in a study. 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, many of the responses were general and not specific to the study, theory or technique named in the question. To improve, responses should give specific examples to support their point. As mentioned for the odd question **part b**, the candidate should make a flashcard/revision notes and include in this strengths and weaknesses of the theory, study or technique to help candidates prepare for these questions.

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

This question comes from one of the bullet points in the syllabus. Candidates could describe the three or four studies, theories, treatments or techniques identified in the specification under the appropriate bullet point. For this exam, some of the answers used the incorrect topic area in the syllabus or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, treatments or techniques and this would need to be a very detailed description. Full marks can also be achieved by describing three in detail (in less depth than if the response described two of the studies, theories, treatments or techniques) with excellent understanding and good use of terminology throughout. It is also important that the descriptions are linked to the topic area named in the syllabus. It could be useful for candidates to create revision notes with the title of each bullet point as the header in their notes (e.g. 'measuring non-adherence to medical advice').

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

This question asks the candidate to evaluate the theories, studies and/or techniques described in **part a** of the question. The response must include at least two evaluation issues, including the named issue, in order to be considered to have presented a range of issues to achieve the top band. However, most responses that evaluated using two issues in this exam achieved in the lower bands due to the response being superficial and often with little analysis. Some responses that considered three or four issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the theories, studies and techniques described in the **part a** of the answer. The candidate must also 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.

To achieve the requirements of the Level 3 and 4 band descriptors it would be best if the response was structured by issue rather than by study and/or theory. Supporting examples from **part a** of the question should be discussed in detail with explicit links made to the issue. An example of a typical lower band response was where an issue was identified and the candidate would state whether the study, theory, treatment, etc. supported the issue (for example the theory is reductionist, the study has poor ecological validity) with either no explanation given or a very brief example given. These type of responses were often list-like and achieved in the lower mark bands.

It would also be ideal for the response to start with the named issue to make sure the answer covers this requirement of 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. A number of the responses did do analysis. Candidates should be aware this question is worth 10 marks and attempt to include an appropriate amount of information.

General comments

The marks achieved by candidates for this session of the 9990 syllabus achieved across the full range of the mark band. Many candidates were well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. A significant number of candidates were not as well prepared and showed limited knowledge and understanding with brief and/or superficial responses. These candidates often had limited evaluation skills.

Time management for this paper was good for the majority of candidates and most attempted all questions that were required. Some candidates did not respond to one or more of the questions asked in the option area. A very small number 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.

Abnormality was the more popular choice of option, followed by health.

Comments on specific questions

Psychology and Abnormality

Question 1

- (a) The majority of responses explained systematic desensitisation. Most responses explained that the patient creates a fear hierarchy or is gradually exposed to the feared object/situation. Identifying the fear hierarchy achieved 1 mark for this question. To achieve full marks, the response needed to indicate that the patient's anxiety needed to be reduced (i.e. the patient needs to relax) before they can move on in their fear hierarchy. Some responses did also explain that the patient is taught relaxation techniques to use when exposed to the feared object/situation. A small number of responses explained the process of reciprocal inhibition (that the patient cannot be relaxed and anxious at the same time). Some responses explained how a phobia develops rather than this treatment and these type of responses did not achieve any marks.

- (b) A significant number of responses were able to describe the cognitive explanation of phobias. Good responses described that phobias develop from irrational/maladaptive thoughts. An example of these thoughts was frequently given in responses. Some responses used the DiNardo et al. study to illustrate the cognitive explanation of phobias. Weaker responses tended to be brief or the details given of the DiNardo et al. study were not linked to the cognitive explanation of phobias. Weaker creditworthy responses gave fewer details of the explanation. A significant number of responses were not creditworthy as they described either the behaviourist explanation (the Little Albert study) or the psychodynamic explanation of phobias (the Little Hans study).
- (c) The responses to this question covered the full range of the marks available. Better responses identified two strengths of the cognitive explanation and gave specific examples to show a good understanding of the strength. Popular strengths included practical applications with the explanation used as the basis for the cognitive treatment of phobias, holistic nature of the explanation, the results of DiNardo et al.'s study support the explanation and the strengths of this study. Weaker responses identified strength(s) without any explanation of why it is a strength of the cognitive explanation or an example to explain the strength. Responses that identified strengths of the DiNardo et al. study often did not explain how this strength supports the cognitive explanation of phobias rather than just the study. Those responses that had identified the behaviourist or the psychodynamic explanation of phobias in **part b** gave strengths of these explanations which were not creditworthy.

Question 2

- (a) Responses varied considerably for this question and covered the full range of the marks available. Some responses highlighted how well prepared some of the candidates were for this exam whereas others showed very limited knowledge of this topic. There were many responses were detailed, accurate and coherent with a good use of psychological terminology. The best responses focused on describing three treatments for obsessive-compulsive and related disorders including biochemical, cognitive and exposure response prevention. Weaker responses frequently identified the treatment (e.g. SSRIs) but provided very few details of how the treatment leads to a reduction in obsessive-compulsive symptoms. Many responses were confused about how SSRIs work with some stating that they cause serotonin levels to decrease. There were some excellent, highly detailed descriptions of the Lehmkuhl et al. study although some responses confused this study with 'Charles' by Rapaport and outlined details of both of these case studies. These types of responses achieved in the lower mark band. Only a few responses outlined treatment and management of the other disorders in the syllabus, such as impulse control disorders.
- (b) Many of the responses achieved in the Level 1 or Level 2 mark band with a few providing clear analysis and details of the treatments to back up their evaluative points that enabled these types of responses to achieve Level 3 and above. There was a tendency for responses to focus on many issues per treatment rather than applying the issue to the different treatments. These weaker responses tended to identify that the treatments were deterministic or not, supported individual or situational explanations, etc. without any reason given for this or any analysis. A few responses did effectively discuss the named issue of determinism versus free-will with some clear analysis. For example, these types of responses explained that while the action of SSRIs on serotonin in the body is deterministic the patient does have some free-will with this treatment as they choose to take the tablets. Patients can be made aware of the side effects of SSRIs and this knowledge can help these patients to cope with these side effects better which also shows free-will. Many of the responses confused determinism with reductionism. Apart from this named issue, common areas of discussion included individual and situational explanations, reductionism versus holism, appropriateness and effectiveness of treatments and nature versus nurture. A few responses described treatments in **part b** which was not creditworthy and should be put into the **part a** of their response

Psychology and Consumer Behaviour

Question 3

- (a) There were many good responses to this question with a clear explanation of what makes an effective slogan. Popular responses included that an effective slogan is one that attracts the attention of the consumer, increases brand awareness, gives a positive image of the brand or creates an association between the brand and the slogan. Many responses gave examples of effective slogans or identified types of effective slogans (e.g. a memorable phrase, creative or persuasive). Some responses just gave an example without any explanation as to why this slogan is effective and these achieved limited credit.
- (b) There were some very clear and detailed responses describing the Fischer et al. (1991) study on brand recognition in advertising. Good responses gave some details of the sample, described the brand logo matching game done by the children and gave one or more results. Many responses outlined the numerical results of the study for one or more of the brands or recognition rates of different age groups of the children. Some responses stated that recognition for cigarette brands was higher in families where one or more parent smoked. This was not correct as Fischer et al. found that cigarette logo recognition was independent of cigarette use in the participant's home. Weaker responses included giving the incorrect age range of the children and vague results such as the children were good at matching the logo to the brand. A significant minority of responses described the Auty and Lewis study on product placement in films which was not creditworthy. A few candidates did not attempt this question.
- (c) The vast majority of candidates responded to this question and attempted a discussion of the use of children in psychological research even if they did not attempt **part b** of the question. Better responses were able to identify the issues of using children related to ethics of exposing children to cigarette brands and generalisability to older children. Weaker responses tended to give a list of issues of working with children in psychological research without linking these points to the Fischer et al. study. For example, concentration and language difficulties could be a problem when using children, however this was taken into account in the Fischer et al. study as the children were given a simple matching game to complete. Many of the responses mentioned that there were ethical problems with not getting informed consent from the children in the study. These types of responses were not creditworthy as Fischer et al. did get signed consent from the parents so consent from the children is not needed.

Question 4

- (a) Many responses achieved Level 2 or 3 for this question. Better responses outlined thinking fast and thinking slow and gave examples of these types of thinking in consumer decision-making. There were some good details given of the Hall et al. study on choice blindness and the Braun-LaTour et al. study on advertising and false memory. Details were given of the sample, procedure and some responses gave a number of results for both studies. Weaker responses gave brief descriptions of thinking fast and thinking slow and did not provide any links to consumer decision-making. Some gave confused and/or incorrect details of the research and gave vague results.
- (b) Those responses that achieved in the higher mark bands for **part a** tended to produce good answers to this question, with some good examples of the practical applications of thinking fast/thinking slow and the research. However, this issue was rarely analysed. Responses should be explaining the applications of the research as well as explaining the problems with the applications they have outlined. Other than the named issue, common evaluation issues included generalisability, ethics, validity, reliability and cultural bias. Many responses attempted evaluation issues where they struggled to make the issues relevant to the research and theory described in **part a**. Examples of these issues included nature versus nurture, reductionism versus holism and determinism versus free will. A common weakness in many of the responses was to identify whether an evaluation issue was a strength or a weakness of the study without any specific examples from the research to back up their point. It was also common in weaker responses for an attempt to be made at analysis where the response either stated 'similarly' or 'in contrast' without giving any explanation about why the research was similar or different in terms of the evaluation issue being discussed.

Psychology and Health

Question 5

- (a) This was often well answered with many responses achieving full marks with good explanation of psychogenic pain. Many responses identified phantom limb pain and then explained what this is. A number of good responses outlined that this type of pain is psychological and does not have a physical cause. Weaker responses that achieved 1 mark tended to be very brief and many identified phantom limb pain or stated that psychogenic pain is psychological in nature. Some responses stated that it is a genetically inherited pain or gave an anecdotal response that was not creditworthy.
- (b) There were some strong responses to this question with some giving a detailed description of cognitive redefinition as a technique to manage pain. Common responses included stating that this technique is a way of distracting the patient from their pain, redefining the negative thoughts about the pain in a more positive way and many gave examples of things that the patient might say to redefine their pain such as replacing 'this is the worst pain imaginable' to 'this will only hurt a little bit'. Weaker responses were brief and often gave an example but no explanation of the technique. A significant number of responses stated that cognitive redefinition uses imagery which is incorrect and was not creditworthy.
- (c) Most responses were able to both identify and briefly describe a similarity and a difference between cognitive redefinition and biochemical techniques for managing pain. Common similarities included that both are effective in managing pain and both techniques close the gate from Melzack's gate control theory of pain. Responses that identified effectiveness usually achieved lower marks due to not explaining how each technique manages the pain. Responses that identified closing the gate as their similarity often achieved higher marks due to providing an explanation about how both cognitive redefinition and biochemical techniques close the gate and therefore control the pain. Common differences included side effects, amount of effort required from the patient and time taken before the pain can be managed. Those responses that explained the difference by explaining the point for both cognitive redefinition and the biochemical technique achieved higher marks.

Question 6

- (a) The responses to this question covered the full range of the mark bands. Better responses included both objective and subjective ways of measuring adherence as well as detail of how they were measured and the studies that link to the measurement. There were some very impressive details given of the research that used these measurements to identify whether their participants/patients were adhering or not. Weaker responses either identified or briefly outlined the measurements with no reference to the research. A significant number of responses were on the incorrect topic area and described types of non-adherence and reasons why patients do not adhere. These types of responses were not creditworthy unless the response made reference to a way of measuring non-adherence.
- (b) There were some good responses to this question. These were often able to evaluate the named issue of self-reports and some did effective analysis where they made clear comparisons between the measurements and the strengths and weaknesses of each. Other popular evaluation issues included ecological validity, demand characteristics, social desirability, objective versus subjective data and practical applications. Weaker responses gave list-like evaluation where the issue was identified and the response stated whether the measurement (or the research) had the issue as a strength or a weakness with no detail given of the measurement or the study to explain the point being made.

Psychology and Organisations

Question 7

- (a) Many responses named the other two needs from McClelland's theory of achievement motivation and received full marks. Some responses described the need for power and the need for affiliation and could also achieve full marks. There were a small number of candidates who did not attempt this question. Some confused McClelland with Maslow's hierarchy of needs.
- (b) There were a number of good, detailed responses to this question. Some responses described Adam's equity theory and some linked this theory to explaining motivation at work. For those candidates who attempted this question the vast majority were able to explain that equity theory is about a comparison by an employee with their colleagues in terms of their input into work and the output they receive from the organisation. Most responses were able to identify that if the worker perceives this as fair then they will be motivated to work and if it is unfair and they are working harder than their colleagues for the same pay, for example, they will not be motivated. Weaker responses were repetitive whereas stronger responses often gave examples of unfair input and output and the effect this might have on a worker's motivation.
- (c) Most responses could describe at least one strength or one weakness. Some responses described the equity theory that they had described in **part b** and these types of responses were not creditworthy. The most popular strength was practical applications of equity theory to an organisation to improve the motivation of their employees. Weaker responses just identified this strength but stronger responses were able to give detailed and specific examples of how an organisation could use this theory to improve motivation.

Many responses did not attempt a weakness or just named a weakness such as 'reductionist' without any explanation of this weakness. Just naming a weakness is not creditworthy. Stronger responses explained that it could be difficult to measure an employee's thoughts on the fairness of input and output in an organisation and it could also be difficult and potentially expensive to make everything fair in an organisation.

Question 8

- (a) There were a number of detailed Level 3 and Level 4 responses. Good descriptions were given of Dansereau's leader-member exchange model and individualised leadership model. Good details were often given of Kelley's types of followers and some responses also described the qualities of a good follower as proposed by Kelley. Some gave very detailed descriptions of the Leadership Practices Inventory (Kouzes and Posner, 1987). Credit was also given to any theory from the syllabus that described 'individualised leadership' such as adaptive leadership and situational leadership. A small number of responses described traditional theories of leadership such as the Great Man Theory which was not creditworthy as these theories do not suggest leadership is individualised but is instead to do with the characteristics of the person who becomes the leader. Very weak responses were sometimes given where an anecdotal outline was given of what would make a good leader of an organisation. These types of responses achieved at best Level 1.
- (b) There were some good responses to this question where it was structured by evaluation issue and began with the named issue of reductionism versus holism. Some of these responses gave clear examples from **part a** of their response to back up their evaluative points and attempted some analysis. In addition to reductionism versus holism, popular evaluation issues were practical applications, individual and situational explanation and a discussion of the strengths and weaknesses of the Leadership Practices Inventory. Some responses attempted analysis but this was usually very limited with the response identifying if the theories were similar or in contrast without any explanation of this comparison. In addition, weak responses tended to evaluate by theory rather than by issue so were very repetitive and superficial often with no attempt made at analysis.

PSYCHOLOGY

<p>Paper 9990/32 Specialist Options: Theory</p>

Key messages

Question 1a, 3a, 5a and 7a –

For these questions candidates should write a brief response to achieve 2 marks. It is important that candidates are made aware of the terminology, concepts, theories and techniques 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 in these type of questions. Creating a glossary of key terms, revision of terminology using paper-based or online flash cards or class quizzes could prove useful. Where the response gave an example to help define the term this often achieved full marks.

Question 1b, 3b, 5b and 7b –

These questions could ask the candidate to describe a theory, study, treatment, etc. These questions could also ask the candidate to describe a part of one of the named studies, such as the procedure or the findings, or a summary of the key features of the study. This question is worth 4 marks and the candidates should write a more extended answer. In addition, the response must refer back to the topic in the question. For example, the description of cognitive restructuring must refer to how it treats depression and the description of ERG theory must refer to how it effects motivation at work. It would be helpful to use practice questions in lessons where candidates highlight the key words in the question. It would also be helpful for candidates to create a revision summary using a flashcard or mind map of each bullet point in the syllabus. The flashcard should be given the title used in the syllabus, for example, 'Motivation to work: need theory: ERG theory, Alderfer', to help identify which part of the syllabus the question is referring to.

Questions 1c, 3c, 5c and 7c –

These questions could require the candidate to explain up to two strengths or weaknesses of what they have described in the **part b** of the question. The question could also ask the candidates to make a comparison or to evaluate using a specific issue such the generalisability of a study. 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, many of the responses were general and not specific to the study, theory or treatment named in the question. To improve, responses should give specific examples to support their point. As mentioned for the odd question **part b**, the candidate could make a flashcard/revision notes and include in this strengths and weaknesses of the theory, study or treatment to help candidates prepare for these questions.

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

This question comes from one of the bullet points in the syllabus. Candidates could describe the three or four studies, theories, or treatments identified in the specification under the appropriate bullet point. For this exam, some of the answers used the incorrect topic area in the syllabus or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, treatments or techniques and this would need to be a very detailed description. Full marks can also be achieved by describing three in detail (in less depth than if the response described two of the studies, theories, treatments or techniques) with excellent understanding and good use of terminology throughout. Responses that described four or more studies, theories or treatments for this question usually achieved in the lower mark bands as these type of responses were brief and did not show a detailed understanding of the topic area. It is also important that the descriptions are linked to the topic area named in the syllabus. It could be useful for candidates to create revision notes with the title of each bullet point as the header in their notes (e.g. 'causes of impulse control disorders and non-substance addictive disorder').

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

This question asks the candidate to evaluate the theories, studies and/or treatments described in **part a** of the question. The response must include at least two evaluation issues, including the named issue, in order to be considered to have presented a range of issues to achieve the top band. However, most responses that evaluated using two issues in this exam, achieved in the lower bands due to the response being superficial and often with little analysis. Some responses that considered three or four issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the theories, studies or treatments described in the **part a** of the answer. The candidate must also 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.

To achieve the requirements of the Level 3 and 4 band descriptors it would be best if the response was structured by issue rather than by study and/or theory. Supporting examples from **part a** of the question should be discussed in detail with explicit links made to the issue. An example of a typical lower band response was where an issue was identified and the candidate would state whether the study, theory, treatment, etc. supported the issue (for example the theory supports nature, the study has poor ecological validity) with either no explanation given or a very brief example given. These type of responses were often list-like and achieved in the lower mark bands.

It would also be ideal for the response to start with the named issue to make sure the answer covers this requirement of 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. A number of the responses did do analysis. Candidates should be aware this question is worth 10 marks and attempt to include an appropriate amount of information.

General comments

The marks achieved by candidates for this session of the 9990 syllabus achieved across the full range of the mark band. Many candidates were well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. Some candidates showed highly developed evaluation skills. A significant number of candidates were not as well prepared and showed limited knowledge and understanding with brief and/or superficial responses. These candidates often had limited evaluation skills and frequently did not clearly link their response to the question.

Time management for this paper was good for the majority of candidates and most attempted all questions that were required. Some candidates did not respond to one or more of the questions asked in the option area. A very small number 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.

Abnormality was the more popular choice of option, followed by organisations.

Comments on specific questions

Psychology and Abnormality

Question 1

- (a) The majority of responses did address the question and explained bipolar disorder. Most responses identified high and low periods of mood and could give a description of what symptoms were included in mania/depression effectively. Some responses described these symptoms in a lot of depth which is not required of a 2 mark question. Few responses referred to the time frame of the manic and depressive episodes. Some responses explained that bipolar disorder is 'moodiness' or periods of feeling happy and sad. These are not symptoms of this disorder. A significant number of responses stated that these episodes could last for just a few minutes, hours or a day and switched between mania and depression frequently. This is incorrect as each episode

will last for weeks or months. A minority of responses explained the symptoms of schizophrenia rather than bipolar and did not receive any credit.

- (b) There were many very good and appropriately detailed descriptions of cognitive restructuring and how this treatment can reduce the symptoms of depression. Some excellent responses indicating the stages of the treatment in detail with reference to cognitive triad, challenging of negative thoughts and need for client to do homework. Some responses included examples of negative thoughts such as 'I am a failure because I failed that exam' and how these could be challenged with evidence and subsequently changed. Weaker responses tended to be repetitive and/or failed to describe how cognitive restructuring might help with depression. Some responses attempted to describe research that investigated the effectiveness of cognitive restructuring and only described the treatment in a limited way. Responses that were not creditworthy included those that described the causes of depression, the Beck depression inventory and rational emotive behaviour therapy. Occasionally those responses that described rational emotive behaviour therapy did receive partial credit as they referred to challenging irrational thoughts.
- (c) The responses to this question covered the full range of the marks available. Better responses identified one strength and one weakness of cognitive restructuring and gave specific examples from the treatment to show a good understanding of the issue. Good strengths included reference to the client becoming independent and proactive in their treatment, and the lack of side-effects compared to drugs or ECT. Good weaknesses included how those suffering from depression (particularly severe depression) will find it difficult to be motivated to attend therapy especially on a regular basis. It was common for responses to explain more than one strength and one weakness. These types of responses were often poorly organised with the answer switching between the issues raised. In addition, few of these responses gave examples to back up their point. Strengths and/or weaknesses that raised the issues of cost and time often achieved Level 1 as they failed to explain why the treatment might be costly or time-consuming or the implication that cost/time might have on a depressed patient. Reductionism was a popular weakness and most responses failed to explain why cognitive restructuring could be considered to be reductionist other than to state that it ignored other factors such as biological/genetic. Responses that suggested the treatment was more holistic tended to achieve in the higher levels as they could back up this point with reference to the stages of treatment, different types of irrational thoughts that are challenged by the practitioner and the homework completed between treatment sessions.

Question 2

- (a) Responses varied considerably for this question and covered the full range of the marks available. Some responses highlighted how well prepared some of the candidates were for this exam whereas others showed very limited knowledge of this topic. There were many responses that were detailed, accurate and coherent with a good use of psychological terminology. The best responses focused on describing 3 causes for impulse control disorders and non-substance addictive disorder. High mark responses describing biochemical explained both the high levels of dopamine at the start of impulse control disorder and the areas in the brain responsible for the disorder as well as a clear explanation about how dopamine deficiency can develop and the effect this has on impulsive behaviour. For the behavioural treatment the best responses used appropriate terminology such as positive reinforcement and partial reinforcement. Many responses referred to gambling and some gave very clear explanations of how impulse control disorder develops. Feeling-state theory was very clearly described in some responses and those that achieved in the higher levels often used an example of pyromania to elaborate on the feeling-state theory. Weaker responses showed confusion with positive reinforcement being described as a 'cognitive' explanation and reference to serotonin rather than dopamine. Many responses referred to 'schedules of reinforcement' as a behavioural cause of impulse control disorder without explaining this. Common omissions included failing to link the explanation to an actual impulse control disorder or, more rarely making reference to alcoholism or other substance abuse. Some responses did describe the symptoms of the various impulse control disorders instead of (or in addition to) explanations and gained no credit for this.
- (b) Many of the responses achieved in the Level 1 or Level 2 mark band, with a few providing clear analysis and details of the causes described in **part (a)** to back up their evaluative points that enabled these type of responses to achieve Level 3 and above. There was a tendency for responses to focus on many issues per cause rather than applying one issue at a time to the different causes. Stronger responses considered three or four evaluation points, including the named issue of nature versus nurture, with some attempt at analysis by outlining the strengths and

weaknesses of the issue/debate. Some responses used research on treatment for Parkinson's disease where these patients showed symptoms of impulse control disorder as evidence to support the biochemical cause. A few of these responses then did some very effective analysis by providing the strengths and/or weaknesses of this research and linking this to improving the validity of the dopamine theory. Other popular evaluation issues included determinism versus freewill, individual versus situational, reductionism versus holism, and practical applications such as treatments. Weaker responses often stated which side of the debate a cause was on without any explanation or a very superficial example was given. For example, stating that positive reinforcement supports the nurture side of the debate as the learning of impulse control disorder is due to the environment. Many responses that did provide strengths and weaknesses of the issue frequently did not link the strength and/or weakness of an issue to impulse control disorders, so were not able to achieve credit for good analysis.

Psychology and Consumer Behaviour

Question 3

- (a) There were a few good responses to this question where the cognition-emotion model' of the effects of ambience was clearly outlined. Some responses were able to explain how emotion is generated and the role of cognition and ambience in generating emotion. A few gave examples of this from consumer behaviour with an example of ambience (such as scent) and the effects of this on cognition and emotion. A common error was to describe the pleasure-arousal model. Many responses failed to link cognition, emotion and ambience. A number of responses were anecdotal or very confused and did not receive any credit.
- (b) There were many very clear and detailed responses describing the Chebat and Michon study on the effects of odour on shopper arousal. Good responses gave succinct accounts of the place where the study took place, description of independent variable, reference to controls, questionnaire to gather results, and at least one finding. Candidates were very well prepared for this question but this did lead some responses to be too long as the candidate included every detail about the study. This could then mean that these candidates had less time to answer the other questions in the exam. Weaker responses lacked sufficient detail or had incorrect information about the study (e.g. the study took place in one shop or a supermarket rather than a mall) and often suggested that the amount spent at shops in the mall increased with the citrus smell and this is incorrect.
- (c) The vast majority of candidates responded to this question with two strengths. Some responses explained more than two strengths and where this was done the best two were credited. Popular strengths that tended to achieve higher marks included the use of the controls, in particular the lack of perfume worn by the researchers handing out questionnaires and the high ecological validity of the study. Weaker responses often were able to identify one or two strengths but did not elaborate why this was a strength for the study or give any specific examples of back up their strength. Those responses that attempted practical applications often suggested that using a citrus smell would increase consumer spending. As this was not found in the study this strength was not creditworthy. However, responses that backed up their strength of practical applications with links to consumer satisfaction and perception of the quality of products did receive credit. A few responses stated that qualitative data was collected which is incorrect.

Question 4

- (a) Many of the responses to this question were very good and the majority of candidates seemed well-prepared for this question. There were some very clear and detailed descriptions of the studies by Pavesic, Dayan and Bar-Hillel, and Wansink et al. Responses that achieved in the higher levels for the question often outlined the aim of the study, most important design features and what was found. Excellent answers tended to also explain what this information tells us about menu design which clearly linked the research back to the question. Weaker responses gave brief descriptions and/or incorrect details of the studies. There were some incorrect responses that suggested that Pavesic did a study and gave some results of this study. Some appeared to be confused that Dayan and Bar-Hillel did two studies – one in a lab and the other in the field – and instead described a study that included features of both of these studies. Lots of responses incorrectly stated that spending increased in the research which was not investigated. Some responses were purely anecdotal and described what would be 'good' features of a menu without reference to any

research. Some of the high-mark responses also gave good design features beyond what was suggested by the research which did not gain any credit.

- (b) There were some very good responses to this question although the majority achieved Level 1 or Level 2 due to lack of examples and limited analysis. Better responses explained why the field experiments had good ecological validity and how the experiences of the participants in these studies would be similar to customers using a menu in a restaurant. Other issues discussed included practical applications and in the majority of cases referred to increasing profits for a restaurant. Generalisability was often referred to but just naming that customers were from USA or Israel and then stating that the results can only be generalised to these two countries without explaining why. Better responses discussed how restaurants in some cultures may be the preserve of the wealthy only and not apply to large proportions of the population, in contrast to cultures where restaurants are accessible to more of the population. Those responses that achieved in the lower levels frequently did so because of a lack of analysis. Lower mark responses failed to explain both why studies were or were not high in ecological validity and then why that could be a strength or weakness. It should be noted that the Dayan and Bar-Hillel study specifically mentions that menu item position can be used to encourage customers to make healthier options on the menu (this is the aim of the study). This would make another practical application to which candidates could refer rather than focusing on economic gains. Some responses attempted evaluation issues where they struggled to make the issues relevant to the research described in **part (a)**. Examples of these issues included nature versus nurture, reductionism versus holism and determinism versus free will. It was also common in weaker responses for an attempt to be made at analysis where the response either stated 'similarly' or 'in contrast' without giving any explanation about why the research was similar or different in terms of the evaluation issue being discussed.

Psychology and Health

Question 5

- (a) The most common responses were benzodiazepines and SSRIs. Those who identified SSRIs were more likely to achieve the second mark as they explained how these drugs reduce stress by making more serotonin available at the synapse. Weaker responses identified the biochemical technique only or attempted an outline of how the technique works to reduce stress but this was either incorrect or too vague to receive credit. Some responses incorrectly outlined psychological technique to reduce stress such as biofeedback or imagery which was not creditworthy. Credit could have been achieved for this question by outlining a 'non-standard' biochemical technique such as painkillers or opiates as long as the response explained how this technique could reduce stress. The vast majority of responses that suggested a 'non-standard' technique did not receive any credit as they either just identified the technique or gave an incorrect description about how this technique works to reduce stress.
- (b) There were many good, detailed descriptions given of Chandola et al.'s study on work as a cause of stress. Common details given of the study included the sample (often with the correct number of participants), how the data was collected and one or two results. Most responses were of an appropriate length for 4 marks. Weaker responses tended to be ones where the candidate did not appear to know the study and gave a brief outline of why work might be a cause of stress. A few described research into personality or life events as a cause of stress rather than work which did not receive any credit. Many responses failed to achieve full marks due to providing a vague result for the study (e.g. high stress at work leads to more health problems or greater chance of coronary heart disease). A typical incorrect detail from this study was to state that the participants were all men.
- (c) The vast majority of responses attempted a discussion of the generalisability of Chandola et al.'s research.

Level 3 responses described ways in which the study was high in generalisability (large sample, stating its size and how there are a number of different kinds of jobs within the civil service). Good responses explained ways in which the study was low in generalisability due to not having a 50/50 division of males and females, taking part in one city of the UK (London) and how this may not reflect the rest of the country or other cultures. Some full-mark responses described ways in which work in less developed countries may hold a different type of stress and that the lifestyle features of more developed cultures are less likely to be present. Weaker responses gave a generic discussion of generalisability and stated that the sample was large and just done in the UK without



explaining the effect of these features on generalisability. Some responses incorrectly stated the study was just done on males and a significant number of responses suggested the results could not be generalised to children or the elderly. Chandola et al.'s aim was to investigate work as a cause of stress. Children and the elderly do not work and therefore it is not a problem that the study cannot be generalised to these age groups.

Question 6

- (a) The responses to this question covered the full range of the mark bands. Many responses described the Janis and Feshbach and the Cowpe study on fear arousal and often in some depth with an outline of the sample, procedure and results. Further theories and studies described included the health belief model, Yale model of communication and Lewin's study on providing information. In addition, a significant number of responses described the studies on health promotion in schools, worksites and communities including Tapper et al., Fox et al and the five cities project by Farquhar et al. Some responses clearly linked all of their descriptions to promoting health. Weaker responses often gave an outline of the relevant research and/or theory but provided fewer links to health promotion. This was more frequently seen in responses that described either the Yale model of communication or the health belief model. Responses usually gave clear and sometimes very detailed descriptions of these theories but did not link them to how health could be promoted using the models. A very large number of responses described multiple studies and theories without describing any of them in depth. It should be emphasised that 2 or 3 detailed accounts of studies is what is needed for these types of questions and writing more will not receive more credit. There were significant numbers of responses that were very long with brief descriptions of six or seven pieces of evidence that they were unable to attempt **part (b)** or gave a very brief response.
- (b) The vast majority of responses achieved Level 1 or Level 2. The named issue, the longitudinal research method, was usually addressed in responses but often in a very superficial way with just an identification of whether the study was longitudinal or not. A few responses did give the strengths and/or weaknesses of the longitudinal method and even fewer did give examples from the research outlined in **part (a)** to back up their evaluation points. Other popular evaluation issues included application to everyday life, ecological validity, and generalisability. Weak responses gave list-like evaluation where the issue was identified and the response stated whether the research (or the model) had the issue as a strength or a weakness with no detail given of the study/model to explain the point being made. Responses that evaluated three or four issues and gave specific examples from the description in **part (a)** achieved higher marks than those that evaluated each study/model in turn, as these were often very repetitive with few specific examples.

Psychology and Organisations

Question 7

- (a) Many responses outlined what an organisation could offer an employee in order to help them feel empowered. Popular responses included giving more responsibility, more autonomy, increasing recognition and being allowed to work on tasks independently. For these types of responses partial credit was awarded. Some responses then explained the effect of this on the employee's motivation. Creditworthy responses included stating that employees will feel more valued or trusted by their organisation and therefore will be motivated to work hard. Weaker responses often did not link their response to motivation at work. Some responses described empowerment is where the employee has power and this was not creditworthy.
- (b) The majority of responses for this question achieved a Level 1 mark as they outlined the ERG theory but did not provide any description of how this theory explains motivation at work. The majority of responses stated what the letters stood for and were able to give examples of these needs. Some responses linked their examples to work which helped these responses achieve higher marks. There were a few, good full-mark responses that described how achieving these needs at work or being offered for these needs to be met will cause the employee to be more motivated. There were some responses where the candidate did not know what the letters stood for and a few responses outlined Maslow's needs rather than those from ERG theory which was not creditworthy.

- (c) The vast majority of responses attempted both a strength and a weakness of ERG theory. Popular strengths included that it is not a hierarchical theory and is therefore more flexible than Maslow and application to everyday life where the response described how an organisation could meet these three needs. Popular weaknesses included practical problems with organisations attempting to meet these three needs and temporal validity as the theory was developed in 1972. Most responses did not use the term 'temporal validity' but often explained this issue well enough to achieve Level 2 or 3 for this part of their response. Weaker responses often provided incorrect strengths and/or weaknesses. For example, a significant number suggested that this theory is reductionist when in fact it is both flexible and holistic. A significant minority mistakenly stated that needs such as esteem and self-actualisation are not included in ERG theory. Others stated that ERG theory cannot be applied to cultures outside the USA but did not explain why.

Question 8

- (a) There were a number of detailed Level 3 and Level 4 responses. In particular, the Oldham and Brass study was described in the most depth in responses. However, many responses incorrectly described this study as investigating the productivity of the workers at the newspaper. Wikstrom and Bendix tended to be somewhat brief and most responses focused on outlining the Hawthorne effect. Some responses describing the Einarsen study gave an accurate summary but this study was the most likely to be either brief or anecdotal descriptions were given alongside correct details from this review article on bullying at work. Some responses were anecdotal where a lengthy description was given of what would make the ideal workplace. Other responses described types of shiftwork as well as the Gold et al. study which were not creditworthy.
- (b) There were some good responses to this question where it was structured by evaluation issue and began with the named issue of validity, which was often linked to ecological validity and demand characteristics. Those responses that gave clear descriptions of the studies in **part (a)** tended to achieve more marks in this part of the question as they had a good understanding of the methodology used in the studies. Other popular issues included generalisability, practical applications and individual and situational explanations. Analysis was frequently attempted but this was often done in a superficial manner with 'similarly' and 'in contrast' placed between the evaluation of two studies without any explanation about how or why the studies were similar or in contrast in terms of the issue being discussed. Many responses that covered generalisability simply stated that if a study is carried out in one location it cannot be generalised to any other; but needed to recognise that it is the nature of the work here that is relevant e.g. factories across the world will have similar practices so generalisability could be high. It was very rare to see a response where the candidate argued that a sample can have some features which are generalisable and other features which are not. These types of responses would have achieved Level 3 or 4 as this is good analysis. Candidates who had overwritten some of their answers to the lower mark questions sometimes had to give very brief responses as they had mismanaged their time.

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 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 **Questions 1, 2, 3 and 4** required advantages and disadvantages (plurals) and a conclusion.
- In **Section B, Questions 5, 6, 7 and 8**, 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, Questions 9, 10, 11 and 12**, 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. Description cannot be credited.
- Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve top marks.

General comments

There was evidence to suggest that many candidates had not fully studied two options in equal depth. Whilst answers to one option were often very good, some answers to the second option were very poor, often limited to anecdotal or common-sense responses. Further, there were some examples of weak examination technique which candidates would benefit from improving.

Section A

- Candidates need to address the 'stem' of the question, the introduction or the opening words in **Section A** questions as this is crucial to answering each question part that follows.
- Answers must refer to the study the question is about. Many answers provided general comments which were unrelated to the study itself.
- For question **part (d)**, many answers correctly included strengths and weaknesses but often these were not related to the question, and so restricted marks.
- 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 address the focus of the question rather than writing pre-prepared answers. Many questions will test the ability to apply knowledge from one thing 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 1 mark rather than 2 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 this section 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. Many answers listed features such as 'I would have a random sample' and 'It would be an independent measures design' without explanation of why it would be a random sample, or how this would be obtained.

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. Merely describing a relevant piece of research from a topic area is insufficient to score full marks. The links between the research and how it informed the design must be shown. Further, there is no need for a name (date) to be quoted for each sentence, with some candidates writing 'I chose a self-selecting sample because Milgram (1963) did' for example. This just identifies a study using that technique. It does not explain the choice of sampling technique.

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 require candidates to describe everything they know about that topic area, and answers that do not address the question will only 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.

Section A

Question 1

- (a) Top answers sometimes distinguished between fire-setting, arson and pyromania or wrote about the tension, pleasure or relief associated with the event. Some answers were very brief, often with nothing more than 'pyromania is setting fires' for example, and received limited credit. Other candidates incorrectly believed pyromania involved stealing, gambling or drug abuse. A few answers suggested that pyromaniacs work as firefighters, but the aim of a firefighter is to put out a fire rather than start them.
- (b) A few answers appeared to guess at the two components suggested by Griffiths, but many more scored full marks. The first mark was achieved by identifying the component and the second mark for an explanation of what the component involved, for example, stating that 'Salience is when the particular activity becomes the most important activity in the person's life and dominates their thinking feelings and behaviour'.
- (c) Answers such as 'I would conduct a covert, structured observation in a gambling environment recording the frequency of gambling' would achieve full marks for a way to measure addiction to gambling, but many responses did not answer the question. Answers such as 'I would observe a gambler' received no marks because of a lack of detail about the observation and specifically how gambling would be measured. Two suggestions were required and some answers provided only one.
- (d) Many answers included two strengths and two weaknesses and a conclusion, but only scored partial marks because often measuring kleptomania, as the question required, was not mentioned. An answer might be 'one weakness (of a questionnaire) is that a person may not be honest'. This is correct but it would not receive full credit without being related to the question. If the answer were to continue with 'and so the therapist treating the kleptomaniac would not know how bad the problem is', would achieve full credit because it is relating the weakness to kleptomania. This 'formula' applies to all options and every **part (d)** question.

Question 2

- (a) Many answers scored 2 marks for including two psychological expectations surrounding gift-wrapping, such as those outlined by Porublev. Many answers were anecdotal such as 'a gift should be tied with a ribbon', such common-sense answers are occasionally able to score limited credit, but in most instances they were not creditable.
- (b) Some answers scored full marks for correctly identifying and explaining how Porublev gathered data, for example 'twenty in-depth interviews were gathered where participants were invited to reflect on gift wrapping'. Porublev also used projective workshops and observations to gather data. Other answers were common-sense, with many answers incorrectly suggesting that Porublev used questionnaires to gather data.
- (c) (i) This question required an explanation of reliability and although some answers correctly stated that it is the consistency of a procedure/task/measure, many candidate responses showed confusion. Some candidates, for example, stated that it means being trustworthy. Other candidates confused reliability with a study being replicated or repeating a study and getting the same results. The only instance where repeating a study is acceptable is 'test-retest' where the procedure/task/measure produces the same results with the same people each time.
- (ii) The only way to test the reliability of qualitative data is to use inter-rater reliability, where two or more independent judges/raters assess what is said in the interview (or projective workshop), used in this study for example. This could be done using predefined response categories and the extent of agreement between the two raters; their consistency, assessed. Some answers scored full marks for writing answers based on the above, but other answers could not apply their knowledge or understanding.
- (d) Many answers included two advantages and two disadvantages but many answers needed to focus on the use of qualitative data as the question required. Some answers had no conclusion, others a simple statement such as 'In conclusion qualitative data is useful' and some answers summarised what had already been written. A few answers included a full and appropriate conclusion and achieved full marks.

Question 3

- (a) Many answers scored partial credit for stating that Savage and Armstrong used questionnaires to measure patient satisfaction. Some answers went further, scoring full marks by explaining that they used two questionnaires, one immediately after the consultation and the other completed at home one week later. A small number of answers incorrectly suggested that Savage and Armstrong used interviews, case studies, experiments or observations.
- (b) This question part was not well answered with very few answers achieving full marks. One correct answer, included by most candidates scoring partial credit was that some participants did not give consent/withdrew. Also creditworthy: 5 participants were excluded because of 'mental problems'; 30 did not complete the assessment immediately after the consultation; and 120 did not return the postal questionnaire.
- (c) (i) (ii) Question **part (i)** focused on random selection and **part (ii)** focused on random allocation to test understanding of the difference between these two terms. There were a number of excellent answers achieving full marks for both question parts. These were firstly: both the question parts asked to 'explain why this is important' which scored marks, and is different from merely defining the terms. Secondly, both question parts required the explanation be related to 'this study' (i.e. the Savage and Armstrong study).
- (d) This question asked for advantages and disadvantages of using postal questionnaires to gather data on health preferences. Very few answers mentioned sharing or directing styles, often including nothing more than a vague 'health preferences'. Some answers used examples of 'health preferences' from other topic areas.

Question 4

- (a) The correct answer to this question was that ‘people change their behaviour when they know they are being observed’, and a statement like this would score 2 marks. Many answers achieved this with ease, although many did not, with some more complex answers and sometimes inappropriate answer showing a lack of understanding.
- (b) (i) Many answers achieved no marks either because they did not know the what the independent variable of the study was, or they confused the IV and the DV. Achieving limited credit were answers which stated that ‘the IV was lighting’, whereas answers achieving full marks described the IV, for example writing ‘in one group the IV was illumination change versus the other group of constant illumination’. Alternatively, and equally creditworthy, was ‘the IV was where illumination was decreased step by step’.
- (ii) Some answers incorrectly included the IV rather than the DV. Many answers scored limited credit by including the term productivity, with only a few answers going further and achieving full marks for showing knowledge of the study where productivity was described as being where ‘both sets of subjects slowly but steadily increased their performance of inspecting parts, assembling relays or winding coils’.
- (c) Although two explanations were required, many answers only had one. The most common answer was a description about jobs being scarce because of the Great Depression at that time and so workers worked harder (increased productivity) to keep their jobs.
- (d) There were some excellent answers, but there were also some poor answers. Weaker answers often gave advantages and disadvantages of controlling variables but did not link this to the Hawthorne studies or any other study of physical working conditions. The question stated ‘field experiments on physical working conditions’ and some answers, which used inappropriate examples from AS studies, scored no marks.

Section B

Question 5

- (a) Nearly all candidates chose to plan an experiment and most included a range of relevant features applicable to an experiment. Answers scoring high marks showed a good understanding of both IV and DV. The IV was most commonly ‘participants receiving CBT’ and ‘participants not receiving CBT’ (or CBT compared to an alternative form of treatment was also acceptable). Some answers were not fully thought through. For example, laboratory experiments were suggested, with the participants going to the laboratory each week for a number of years. Further, many answered confused participants and patients. Many answers described people with schizophrenia as patients who are in mental institutions in which case treatment would be given within the institution by medical staff rather than by an experimenter in a laboratory.
- (b) Many candidates, for their psychological evidence, correctly wrote about the use of cognitive behaviour therapy by Sensky et. al. (2000) but only rarely explained how this work related to the plan of their study. Methodologically there were some excellent justifications, but some answers needed to explain their plan in more detail or think the answer through. For example, to determine improvement in treatment or not (the DV) it was often suggested that ‘the participant be observed’ or ‘ask the person’ without any further explanation about what this would involve.

Question 6

- (a) Although the question required that a questionnaire be used, some answers used a different method which could not be credited. Answers that did use a questionnaire then added details of an experiment such as IV and DV which were not needed. For example, some answers had an IV of crowded shop and uncrowded shop which was not the focus of the question. A further weakness was that some answers wrote ‘I would use a questionnaire’ with no further elaboration, rather than using methodological knowledge about questionnaire design that has been gained at AS. For example: Are the questions open or closed? How many questions will there be? How will the wording of questions test discomfort of personal space? How will theories of personal space be tested?

- (b) The syllabus for this sub-topic shows three relevant theories: overload, arousal and behaviour constraint. Many answers described these, often in detail, but failed to achieve full marks because they were not linked to the candidate's plan. The question ends with the crucial words 'on which your study is based' and this link needs to be made explicit. Methodological knowledge included should be that learned at AS and all the features of each method should be applied in detail. In this instance, the inclusion of knowledge of questionnaires should have been applied in more detail in order to achieve more marks.

Question 7

- (a) This question allowed candidates a free choice of method to assess 'stages of change'. The most logical method would be to use a questionnaire (or interview) and ask the same questions each month over a period of time. Although some candidates did plan their study using this method, and wrote excellent answers, many others conducted an experiment. This was always a problem because the IV and DV could not be operationalised. Use of an observation, as suggested in some answers, would also be difficult because 'stages of change' is about thoughts (stages 1, 2 and 3) rather than behaviour (stages 4 onwards).
- (b) In terms of methodological evidence, those answers planning an experiment in **part (a)** struggled to justify their decisions in this question part. On the other hand, answers planning a questionnaire justified their choice of using closed questions (for example) so the quantitative data gathered could be compared at each test time period. In terms of psychological evidence, the focus of this question was on stages of change of health behaviour and so the work of Prochaska et al. (1977) which included six stages, should have been an important inclusion.

Question 8

- (a) This question allowed candidates a free choice of method to plan an investigation into errors at work. Like most other **Section B** Questions, a laboratory experiment was frequently chosen. Answers then proceeded to plan some artificial task with an IV and DV. A more logical plan would have been to conduct a naturalistic, covert, structured observation with actual workers working with machines in a factory. Some candidates wrote answers based on an observation, but often needed to link what they were observing with psychological knowledge. For example, answers would state 'I would observe the number of errors' without stating what those errors might be. If 'timing errors' for example had been used, this would link to **part (b)**.
- (b) Relevant psychological knowledge for this question part is Riggio's four operator-machine errors which are errors of omission, commission, sequence errors and timing errors. A description of these would have achieved 2 marks and then an explanation of how they linked to the plan in **part (a)** would gain the other 2 available marks. However, this was rarely done, with general answers commonly provided. In terms of methodological evidence, an observation would be the most logical choice, but marks were awarded for any appropriate method.

Section C

Questions in this **Section C** require answers to address arguments and evidence in favour/agree with the statement and arguments and evidence against/disagree with the statement. Responses that did not do this achieved minimal credit.

Question 9

Many candidates failed to score high marks because they did not organise answers around the usefulness of psychometric measures. Many answers only focused on description of the Kleptomania Symptom Assessment Scale (K-SAS) rather than the question set; others wrote about the advantages and disadvantages of (K-SAS), but not the wider psychometric measures. Notably the K-SAS is just one example of a psychometric measure, the question stating 'such as' and so the question could be read as 'Psychometric measures provide therapists with no useful information' and examples from any appropriate topic area could be used as evidence to support arguments for and against.

Question 10

A number of answers only focused on description of the Milgram 'place in a queue' study and a number of answers discussed a range of ethical issues. Whilst both these types of answer achieved some marks, they did not achieve top marks because they did not organise the answer presenting arguments for it being ethical and arguments for it not being ethical, with the supporting evidence of the Milgram study.

Question 11

Answers to this question were of two types: those which were anecdotal and based on common-sense, and those which used relevant psychological knowledge such as the studies by Tapper et. al. and Lau et. al. The best answers argued firstly that schools are relevant in the promotion of healthy eating, quoting the study by Tapper et al. in support, followed by the argument that schools are irrelevant because parents in the home are more relevant, quoting the Lau et al. family enduring socialization model.

Question 12

Most answers followed the pattern of description only, or of anecdotal-type answers, and these answers achieved only bottom-band marks. Only a few answers scored top marks because they addressed the focus of the question (can be managed/cannot be managed) and used the relevant work by Thomas (1976) on managing group conflict to support the answer.

PSYCHOLOGY

Paper 9990/42
Specialist Options: Application

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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. Merely describing a relevant piece of research from a topic area is insufficient to score full marks. The links between the research and how it informed the design must be shown. Further, there is no need for a name (date) to be quoted for each sentence, with some candidates writing 'I chose a self-selecting sample because Milgram (1963) did' for example. This just identifies a study using that technique. It does not explain the choice of sampling technique.

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 require candidates to describe everything they know about that topic area, and answers that do not address the question will only 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) Nearly all candidates achieved full marks for this question. To achieve full marks, two or more aspects of the procedure of ECT needed to be outlined. The most common features included giving an anaesthetic, attaching electrodes to the head, passing an electric current through the electrodes, this resulting in a seizure and loss of consciousness.
- (b)(i) One biochemical (or drug) treatment for schizophrenia is giving antipsychotics or neuroleptics such as chlorpromazine or an atypical antipsychotic which blocks dopamine receptors, or to give a 'third generation' drug such as aripiprazole. Most answers achieved maximum marks for mentioning two or more of these features. Some candidates suggested giving SSRIs which could not be credited.
- (ii) There were many correct answers, but many answers needed to be related to schizophrenia or to express clearly why the stated reason was an advantage. Writing, for example, 'drugs are cost effective' is correct and scores limited credit, but more is needed for full credit, such as the addition of 'in comparison with ECT or CBT which are both more expensive in terms of cost to administer and length of time of treatment'.
- (c) Many answers correctly identified two psychological treatments and often described both in lots of detail, and achieved maximum marks. The work of Sensky et al. (2000) who used CBT with schizophrenic patients in a hospital was commonly included as was the study by Paul and Lentz (1977) who used token economy with schizophrenic patients.
- (d) Some candidates wrote excellent answers and achieved maximum marks, but many answers only scored partial marks because the strengths and weaknesses were insufficiently related to the question. For example, an answer might include: 'a weakness is that it has side effects' which is correct, but this is insufficient to achieve a mark.

Question 2

- (a) Writing nucleus accumbens or NAcc scored 1 mark as did 'the insula'. Credit was also awarded for answers identifying the mesial prefrontal cortex (or MPFC). Many answers achieved full marks, but many answers were too vague when writing only 'the frontal cortex' or providing wrong answers such as 'the amygdala'.
- (b) Many excellent answers scored full marks with candidates providing clear, accurate and detailed descriptions of the SHOP task. Many answers stated the precise amount of time for processing each stage. However, there were also many incorrect answers which appeared to guess at what the SHOP task might include. Some answers even suggested that participants go shopping in a mall, and did not understand that the SHOP task had to be done in a fMRI scanner.
- (c) (i) Most answers scored full marks for suggesting a reason why the findings could be generalised, with the most common correct answer being that brain structures (NAcc and MPFC) and functioning are physiological and so work in the same way for every human. Some answers focused on the data suggesting it could be generalised because an fMRI produces objective quantitative data.
- (ii) Most answers scored full marks for suggesting a reason why the findings could not be generalised. Many good suggestions were made, such as the task being conducted in a scanner in a laboratory whereas a different brain process might apply when shopping in real life. Another creditworthy answer was that all participants in the study were right-handed and so the findings could not automatically be generalised to left-handed people.
- (d) Many answers included two strengths and two weaknesses and a conclusion, but only scored partial marks because often answers were not related to consumer decision-making as the question required. An answer might be '*one advantage (of using a scanner) is that it produces objective quantitative data*'. This is correct but it would not receive full credit without being related to the question because it could apply to any question from any topic area. If the answer were to continue with '*meaning that decision-making about consumer choice can be statistically analysed*', it would achieve full credit because it is relating the strength to the topic area.

Question 3

- (a) Two categories from the UAB needed to be identified and most answers did this successfully. Typically, 'down time', 'lack of mobility' and 'non-verbal vocal complaints such as groans' all received marks. A few candidates incorrectly identified 'vocal complaints'. A few candidates wrote 'facial expressions' but this was too vague because a facial expression could be a smile, for example, rather than associated with pain. Writing 'facial expression such as a grimace' could be credited.
- (b) (i) Most answers scored both marks for providing a reason why the UAB is longitudinal. First, the UAB 'chart' includes days of the week, so pain is recorded over at least 7 days. Second, the UAB 'chart' has space to record pain behaviour for three weeks. Some answers scored no marks because they described the rating scale of '*non, occasional and frequent*' which does not show how pain is recorded longitudinally.
- (ii) Many answers achieved full marks for logical answers to this question part on the application of the UAB longitudinally. Many answers stated that it shows whether pain has decreased over time, and some answers went further than this, suggesting that it also allowed a medical practitioner to determine whether a pain-killing drug should be increased or decreased.
- (c) Answers scoring full marks were those which described the McGill Pain Questionnaire (MPQ) and the Paediatric Pain Questionnaire (PPQ). Often these were described with full detail. A number of answers suggested measures which did not use a questionnaire and such answers could not be credited. Some answers suggested using a visual rating scale, or the Wong-Baker faces scale, but these are not questionnaires.

- (d) This question asked for advantages and disadvantages of measuring the pain independently of the person experiencing the pain, such as a person observing pain using the UAB rating scale. Relevant advantages were given, but often these were not related to pain. For example, writing 'the person observing will be a medical specialist' is true, but in relation to what? The essential inclusion of 'and so will be an expert in completing the UAB and judging pain' was needed to score a mark. Any advantage or disadvantage must be related to the question being answered.

Question 4

- (a) Many candidates appeared to be unfamiliar with Heifetz' theory of adaptive leadership. Other candidates scored full marks with little difficulty. Three principles (for example) include: building on the past, occurring through experimentation and relying on diversity.
- (b)(i) Many answers scored full marks because they showed good understanding of the terms reductionism and holism. Other answers only scored partial marks because they were vague, defining reductionism as 'looking at one thing' and holism as 'looking at many things' for example. Although a supporting example was not required, many answers successfully used one to clarify their answer.
- (ii) Many answers were not able to suggest how adaptive leadership shows holism. Some answers were worthy of full credit, however. Adaptive leadership is about organisational change and so the role of the leader is to do whatever is necessary for the organisation to adapt and survive to meet the needs of a changing world. The leader 'gets on the balcony' to look at the whole organisation in order to assess what needs to change.
- (c) Two differences between adaptive and traditional leadership were required. Two creditworthy examples are: an adaptive leader tries new solutions to help any change, whereas a traditional leader would use tried and tested solutions; an adaptive leader would help workers to learn new skills and techniques whereas a traditional leader would use the skills workers already have. Many answers received full marks, but some answers received no marks.
- (d) All **part (d)** questions in **Section A** require a discussion of advantages and disadvantages and a conclusion and this question part was no exception. Further, the advantages and disadvantages must be related to the question, in this instance adaptive leadership. There were very few answers worthy of full marks, with many candidates not relating their answer to the topic area. Summaries were often included rather than conclusions.

Section B

Question 5

- (a) Nearly all candidates chose to plan an experiment and most included a range of relevant features applicable to an experiment. Answers scoring high marks showed a good understanding of both IV and DV. The IV was most commonly 'female participants receiving CBT and male participants receiving CBT' which would address the question. However, many candidates did not do this and did not address gender differences as required by the question, testing 'participants receiving CBT' and 'participants not receiving CBT'. Some answers were not fully thought through. For example, laboratory experiments were suggested, with the participants going to the laboratory each week for a number of years just to receive a telephone call.
- (b) Many candidates, for their psychological evidence, correctly wrote about the use of cognitive behaviour therapy given by telephone for OCD by Lovell et. al. (2006) but only rarely explained how this work related to the plan of their study. In terms of methodological evidence, there were some excellent justifications, but some answers needed to explain their plan in more detail or think the answer through. For example, to determine improvement in treatment or not (the DV) it was often suggested that 'the participant be observed' or 'ask the person' without any further explanation about what this would involve, when the use of a measure such as Y-BOCS could have been more effective.

Question 6

- (a) Most candidates opted to plan a field experiment, which was the most logical choice given the question. Many plans began with an IV and some candidates chose to compare reciprocity with authority, and others brought in all six ways to close a sale. The DV was usually the purchase of a computer. Many plans were coherent and well thought out, such as applying an independent design, but others were not, using repeated measures and then realising that a person might not want to buy two computers if they participated in more than one condition. Some candidates did not appear to be familiar with ways to close a sale.
- (b) In terms of psychological evidence, candidates were often able to explain all six ways to close a sale and were able to show good links to their own study. Methodology was often very good, but many answers included a list of brief sentences rather than explain two or three aspects of their plan. A few answers did not refer to ways to close a sale, and scored no marks, referring to purchase quantity decisions which is from a different sub-topic on the syllabus.

Question 7

- (a) This question allowed candidates a free choice of method and many decided to make the study an experiment, correctly writing about IV, DV, design, etc. Many candidates did not address the wording 'gathering qualitative data' in the question, and therefore marks were limited. Using an experiment was possible, but a questionnaire would have been needed to be used at some point, including open-ended questions, to gather qualitative data. Answers which did include open-ended questions in their plans needed to include how the qualitative data would be analysed to allow a conclusion about dress style to be made.
- (b) The syllabus for this sub-topic is non-verbal communication and the listed study is that by McKinsty and Wang (1991). Many plans in **part (a)** used the same dress styles as McKinsty and Wang, and many plans added several more conditions. Because the psychological knowledge was used in **part (a)** and explained in this question part, full marks were often awarded. Methodological knowledge was often very good, with many answers explaining why they had opted to use a repeated measures rather than an independent design.

Question 8

- (a) The method to be used was an interview, but most candidates spent time unnecessarily applying the features of an experiment, such as IV and DV, etc. which could not be credited. It was necessary to include the details of the interview (whether it is face-to-face or by telephone) and whether it is structured, semi- or unstructured. Details such as the type of question (open, closed or a combination), example questions, how the answers would be scored, and how they would be analysed are important to include. Often interview questions were vague, with little understanding of the reasons for sabotage being used in the interview.
- (b) The psychological evidence included in this question part should have focused specifically on the reasons for sabotage as outlined by Giacalone and Rosenfeld (1987). These include 'release of frustration', 'just for laughs', 'revenge' and 'the company deserved it' amongst others. Often these were mentioned in this question part, but very few answers explained how they related to the questions asked in **part (a)**. Methodological knowledge was sometimes very good, but answers would be better if full knowledge of research methods learned at AS had been applied.

Section C

Question 9

Many candidates failed to score high marks because they did not focus on the question set. Answers should have considered reasons why the 'Charles' study could be generalised and the reasons why the 'Charles' study could not be generalised. Instead, some answers only described the study and scored limited marks. Other answers described and then evaluated the study, again achieving limited marks. Answers scoring top marks suggested that the study could be generalised because many features shown by Charles are shown by other people, or that the treatments used with Charles can also be used with others. Arguments against were that everyone is different and the specifics of one case will not be the same for everyone.

Question 10

There were some good answers in response to this question and some answers scored high marks because eye-tracking was linked to both consumer behaviour and ecological validity. Other weaker answers focused only on the strengths and weaknesses of eye-tracking in general and at the bottom end of the mark range answers only described the study by Atalay et. al. (2012) rather than using it to support the points made in the answer.

Question 11

This question was focused on the syllabus topic of practitioner diagnosis and type I and type II errors. Whilst many answers were based on this, answers at the top end of the mark range correctly extended their discussion and brought in the study by Robinson and West on 'computer doctors' which may or may not assist a diagnosis. At the bottom end of the mark range there was an incorrect inclusion of the patient-practitioner relationship often with the assumption that the way in which a doctor dresses affects their diagnosis.

Question 12

To maximise marks, answers would have benefitted from being divided into two halves. The first considering the view that organisational commitment can be measured through attendance and absenteeism followed by the other half presenting arguments that organisational commitment cannot be measured through attendance and absenteeism. Whilst this structure was seen in some answers, it was not in many others, and responses often did not consider the work by Mowday et. al. (1979) or Blau and Boal (1987).

PSYCHOLOGY

Paper 9990/43
Specialist Options: Application

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