



General Certificate of Education

Psychology 1181
Specification A

**Unit 1 (PSYA1) Cognitive Psychology,
Developmental Psychology
and Research Methods**

Mark Scheme

2010 examination - January series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

Copyright © 2010 AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

PSYA1 Cognitive Psychology, Developmental Psychology and Research Methods

SECTION A: COGNITIVE PSYCHOLOGY AND RESEARCH METHODS

Question 1 a

AO1 = 2 marks Correct identification

C and D are features of the WMM. A and B are not.

1 mark for each correct answer. If more than 2 boxes are ticked, 0 marks.

Question 1 b

AO2 = 4 marks Explanation of one strength and one weakness of the model

Candidates may refer to the original 1974 version of the model, later additions, or may include the episodic buffer which was added in 2000.

Likely strengths include research support such as dual task studies and physiological evidence from brain scans. Candidates may offer a comparison with the MSM and suggest WMM gives a better account of STM.

Likely weaknesses include the fact that little is known about how the central executive works or evidence from brain studies suggesting the central executive is not unitary. Simply stating the model does not explain LTM is not creditworthy as a weakness. However, stating that the link between WM and LTM is not fully explained is legitimate.

Credit any acceptable strength and weakness.

For each strength and weakness, 1 mark for identification. A further mark for accurate elaboration.

For example, there is evidence from dual task studies to support the model (1 mark). It is easier to do two tasks at the same time if they use different processing systems (verbal and visual) than if they use the same slave system (2 marks).

Question 2 a

AO2 = 2 marks Application of knowledge of capacity of STM

QUESTION STEM

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologists found that his long-term memory was normal.

Digit span is normally considered to be 7 ± 2 , so Peter's was much shorter.

1 mark for simply stating his digit span was shorter than normal.

Second mark for an explanation of the difference, eg Peter's digit span of two items was much shorter than the average span of around 7 items.

Question 2 b

AO2 = 4 marks Application of knowledge of the MSM

QUESTION STEM

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologists found that his long-term memory was normal.

The MSM suggests there are separate ST and LT stores. Peter's short-term memory was impaired, but his long-term memory was not. This supports the idea of separate ST and LT stores, because one was damaged but not the other.

One mark for some reference to separate ST and LT stores. Three further marks for elaboration of the explanation

Alternatively, candidates could suggest the evidence goes against MSM. If memory has to pass through the ST store to reach the LT store, it is likely that damage to the ST store would impair the transfer. Candidates could legitimately refer to evidence both for and against the model.

Question 2 c

AO3 = 4 marks Identification of relevant ethical issue and how it would be dealt with

QUESTION STEM

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologists found that his long-term memory was normal.

There are no ethical issues named in the specification, so any potentially relevant issues should be credited.

Likely ethical issues include informed consent, right to withdraw, confidentiality or respect. Candidates may point out that as the man has brain damage, his ability to give informed consent might be in doubt.

One mark for identification of a relevant ethical issue.

One mark for a brief mention of how the issue could be dealt with. Two further marks for elaboration.

For example: confidentiality (1 mark); keep the man's details private (1 mark); the psychologists should not use the man's name in published work, but could use his initials instead (2 further marks).

Question 3 a**AO3 = 2 marks Explanation of a field experiment**

A field experiment takes place in the real world rather than in a carefully controlled environment. The IV is manipulated by the experimenter.

One mark for reference to the environment, real world, naturally occurring, etc.

One mark for reference to manipulating/changing an independent variable.

Candidates who simply restate the words – an experiment carried out in a field – should receive no credit.

Question 3 b**AO3 = 2 marks Outline of weakness of using a field experiment****QUESTION STEM**

A psychologist carried out a field experiment to investigate the accuracy of eyewitness testimony. The participants were pupils and parents attending a school concert. Just before the concert began, two professional actors had an argument on the stage. During the argument, one actor pushed the other actor. Both actors then left the stage. Some of the audience were approached as they left the concert and were asked to take part in an experiment. Those who agreed were taken to a quiet room and were asked some questions about the argument. For some participants, the questions included, "Did you see the man in glasses push the other man?" In fact, neither man was wearing glasses.

The participants were then asked to describe the argument in their own words.

One weakness of using a field experiment is lack of control of variables. In this case, the participants would be different distances from the staged argument.

It would be difficult to replicate the experiment precisely. Sampling difficulties.

One mark for brief identification of a relevant weakness.

Second mark for some elaboration.

Question 3 c**AO2 = 2 marks Application of knowledge of misleading information****QUESTION STEM**

A psychologist carried out a field experiment to investigate the accuracy of eyewitness testimony. The participants were pupils and parents attending a school concert. Just before the concert began, two professional actors had an argument on the stage. During the argument, one actor pushed the other actor. Both actors then left the stage. Some of the audience were approached as they left the concert and were asked to take part in an experiment. Those who agreed were taken to a quiet room and were asked some questions about the argument. For some participants, the questions included, "Did you see the man in glasses push the other man?" In fact, neither man was wearing glasses.

The participants were then asked to describe the argument in their own words.

This is an example of misleading information, because neither man was wearing glasses. The psychologist could see whether participants' description of the event was influenced by the question about the man in glasses.

One mark for identification of misleading information or a leading question/trick question.

Second mark for some elaboration.

For example: it was a leading question (1 mark); the psychologist wanted to see whether including misleading information would affect the participant's memory of the event (2 marks).

Question 3 d

AO3 = 4 marks Knowledge of content analysis

QUESTION STEM

A psychologist carried out a field experiment to investigate the accuracy of eyewitness testimony. The participants were pupils and parents attending a school concert. Just before the concert began, two professional actors had an argument on the stage. During the argument, one actor pushed the other actor. Both actors then left the stage. Some of the audience were approached as they left the concert and were asked to take part in an experiment. Those who agreed were taken to a quiet room and were asked some questions about the argument. For some participants, the questions included, "Did you see the man in glasses push the other man?" In fact, neither man was wearing glasses.

The participants were then asked to describe the argument in their own words.

Identification of behavioural category (1 mark):

Categories could include shouting, running, verbal aggression, gestures/aggressive gestures, etc.

Do not accept arguing or any synonym of pushing eg shoving.

Credit any acceptable categories.

One mark for 1 relevant category.

Explanation of how content analysis could be carried out (3 marks):

The psychologist would go through each participant's description of the argument looking for examples of categories. The number in each category would be counted. Candidates may refer to carrying out a pilot study to check reliability.

One mark for a brief explanation demonstrating some understanding of the use of content analysis. Two further marks for elaboration.

Question 3 e**AO1 = 6 marks Knowledge of the effect of age of witnesses on accuracy of EWT**

There is a wide range of research that could be selected. Candidates might describe in some detail what a limited range of research has shown, or describe a wider range in less detail. Some of the research is contradictory, so unsubstantiated statements such as “children’s memories are worse than adults” are unlikely to receive credit.

Candidates may refer to older and younger adults, eg Anastasi & Rhodes (2006) used participants aged 18 – 78 years. They found young and middle-aged participants were more accurate at recognising photographs than older participants. Yarmey (1984) and Cohen & Faulkner (1988) found older people made more recall errors than younger people. However, Yarmey (1993) found no differences in the ability of older participants to recall physical characteristics of a young woman.

Reference to children as witnesses would also be relevant, eg Warren et al (2005) found older children were more likely to be influenced by leading questions than adults.

Descriptions of research methods are not creditworthy.

6 marks Accurate and reasonably detailed

Accurate and reasonably detailed outline of what research has shown that demonstrates sound knowledge and understanding.

5 – 4 marks Less detailed but generally accurate

Less detailed but generally accurate outline of what research has shown that demonstrates knowledge and understanding.

3 – 2 marks Basic

Basic outline of what research has shown that correctly identifies some knowledge but further detail may be muddled.

1 mark Very brief/flawed

Very brief or flawed outline of what research has shown, demonstrating very little knowledge.

0 – No creditworthy information.

Question 4**AO1 = 4 marks Knowledge of strategies for memory improvement**

Candidates may choose to outline one strategy in detail, or more than one in less detail. Likely strategies include those based on imagery, including peg words and method of loci; those based on organisation including hierarchies and spider diagrams; those based on semantic processing. The use of cognitive interviews would also be creditworthy.

Accept any relevant strategies.

Techniques to improve memory are known as mnemonics. The word mnemonic on its own is not creditworthy.

One mark for naming one or more strategies.

One further mark for a brief or slightly muddled outline of one strategy or a very brief and muddled outline of two or more strategies.

Two further marks for accurate elaboration.

SECTION B: DEVELOPMENTAL PSYCHOLOGY AND RESEARCH METHODS

Question 5 a

AO1 = 2 marks Knowledge of attachment

Attachment can be defined as an emotional relationship between two people in which each seeks closeness and feels more secure when in the presence of the attachment figure. One mark for a brief outline such as an emotional bond. Second mark for some elaboration.

Question 5 b

AO1 = 2 marks Correct selection

The correct answers are B and C. One mark for each correct answer. If more than 2 boxes are ticked, 0 marks.

Question 5 c

AO3 = 3 marks Outline of relevant techniques

Candidates are likely to mention that the child was placed in a strange situation. Relevant techniques include observation of the child's behaviour under controlled conditions, recording the child's movements when mother and stranger are present. One mark for a very brief outline, eg just naming observation. Two further marks for elaboration. Other work by Ainsworth in to types of attachment is creditworthy.

Question 6 a

AO3 = 3 marks Explanation of selection of sample

QUESTION STEM

A psychologist investigated the effect of different forms of day care on children's later social development. She selected two different types of day care:

- child minders
- day nurseries.

The children had been in one of these types of day care full-time for at least a year before they started primary school.

Each child's mother was asked to complete a questionnaire.

The sampling techniques named in the specification are random, opportunity and volunteer. Any of these would be correct. Accept any other suitable sampling techniques.

One mark for correct identification of a sampling technique or for a brief explanation, eg random sample or names in a hat. Two further marks for elaboration, eg random sample – put the names of all the children into a hat. Pull out the names of some of the children.

Question 6 b

AO1 = 2 marks Knowledge of children's social behaviour

QUESTION STEM

A psychologist investigated the effect of different forms of day care on children's later social development. She selected two different types of day care:

- child minders
- day nurseries.

The children had been in one of these types of day care full-time for at least a year before they started primary school.

Each child's mother was asked to complete a questionnaire.

Social behaviour is the child's behaviour in relation to other people. This would include attachments as well as peer relationships, friendships and aggression.

One mark for a brief explanation, eg the child's relationships.

Second mark for some elaboration.

Question 6 c

AO3 = 2 marks Writing a suitable question

QUESTION STEM

A psychologist investigated the effect of different forms of day care on children's later social development. She selected two different types of day care:

- child minders
- day nurseries.

The children had been in one of these types of day care full-time for at least a year before they started primary school.

Each child's mother was asked to complete a questionnaire.

One mark for a question which would produce quantitative data, but is not clearly operationalised and appropriate, eg How many times was your child sociable in the last week?
Two marks for an appropriate question with some evidence of operationalisation, eg How many birthday parties was your child invited to in the last six months? Or Does your child enjoy birthday parties? Yes/No.

Question 6 d

AO3 = 2 marks Writing a suitable question

QUESTION STEM

A psychologist investigated the effect of different forms of day care on children's later social development. She selected two different types of day care:

- child minders
- day nurseries.

The children had been in one of these types of day care full-time for at least a year before they started primary school.

Each child's mother was asked to complete a questionnaire.

One mark for a question which would produce qualitative data, but is not appropriate, eg What do you do at work?
Two marks for an appropriate question, eg How sociable is your child?
Any questions that produce categories including yes/no answers would not be creditworthy.

Question 6 e

AO3 = 2 marks Identification of suitable weakness

QUESTION STEM

A psychologist investigated the effect of different forms of day care on children's later social development. She selected two different types of day care:

- child minders
- day nurseries.

The children had been in one of these types of day care full-time for at least a year before they started primary school.

Each child's mother was asked to complete a questionnaire.

Candidates are likely to focus on social desirability, but any relevant weakness is acceptable.

One mark for a brief answer, eg the mothers may lie.

Second mark for some elaboration, eg the mothers may try to present their child in a positive light and may lie on sensitive issues such as aggression.

Question 7 a

AO2 = 4 marks Application of knowledge to a novel situation

Simon, a two-year-old boy, was left by his parents in a residential nursery for nine days. His mother did not see him during this time because she was in hospital. He was looked after by many different carers who gave him good physical care.

It is likely that candidates will have approached disruption of attachment in different ways. Any understanding of the effects of disruption of attachment on a young child should be credited. Answers may refer to short-term effects such as protest, or longer-term effects such as despair and detachment. The immediate reaction is likely to involve crying. The initial protest will be replaced by calmer behaviour and the child may show rocking and thumb-sucking. When reunited with the mother the child may reject her. Answers may refer to the PDD model, but this is not required for full marks.

One mark for a very brief answer such as the child will scream and cry, or for a muddled answer.

Three further marks for elaboration.

Question 7 b

AO2 = 2 marks Application of knowledge

Simon, a two-year-old boy, was left by his parents in a residential nursery for nine days. His mother did not see him during this time because she was in hospital. He was looked after by many different carers who gave him good physical care.

Answers may focus on providing better care in the residential nursery, eg by making sure he was looked after by the same carers each day. Alternatively, Simon could have been cared for in a home setting such as with a relative or in a foster home.

One mark for a brief answer, eg put him in foster care.

Second mark for some elaboration, eg put Simon into foster care where he will have one person to look after him.

Question 8

AO1 = 6 marks Outline of research into privation
AO2 = 6 marks Evaluation of research into privation

There is a very wide range of relevant research to select from. Candidates are likely to describe case studies of isolated children such as the Czech twins or Genie. Relevant studies of institutional care include Hodges & Tizard's longitudinal study of 65 British children from early life to adolescence and Rutter's study of Romanian orphans adopted by British families. Earlier research such as Skodak & Skeels or Spitz & Wolf may also be cited.

Animal research, such as that of Harlow's monkeys, is creditworthy as long as it refers to privation and not attachment.

Candidates may evaluate research into privation in terms of methodology. Examples of this could include strengths and weaknesses of case studies or longitudinal research.

Commentary may refer to the fact that the effects of privation may depend on a number of complex and often interacting factors such as the quality of care after the privation experience. Examiners should be aware of the depth versus breadth trade-off. Answers which consider a narrow range of research in depth are as acceptable as those which consider a wider range more superficially.

A01 Knowledge and understanding	A02 Application of knowledge and understanding
<p>6 marks Accurate and reasonably detailed Accurate and reasonably detailed description that demonstrates sound knowledge and understanding. There is appropriate selection of material to address the question. Presentation of information is clear and coherent.</p>	<p>6 marks Effective evaluation Effective use of material to address the question and provide informed commentary. Effective evaluation of research. Broad range of issues and/or evidence in reasonable depth, or a narrower range in greater depth. Clear expression of ideas, good range of specialist terms, few errors of grammar, punctuation and spelling.</p>
<p>5-4 marks Less detailed but generally accurate Less detailed but generally accurate description that demonstrates relevant knowledge and understanding. There is some evidence of selection of material to address the question. Information is presented in an appropriate form.</p>	<p>5-4 marks Reasonable evaluation Material is not always used effectively but produces a reasonable commentary. Reasonable evaluation of research. A range of issues and/or evidence in limited depth, or a narrower range in greater depth. Reasonable expression of ideas, a range of specialist terms, some errors of grammar, punctuation and spelling.</p>
<p>3-2 marks Basic Basic description that demonstrates some relevant knowledge and understanding but lacks detail and may be muddled. There is little evidence of selection of material to address the question. Information is not presented in an appropriate form.</p>	<p>3-2 marks Basic evaluation The use of material provides only a basic commentary. Basic evaluation of research. Superficial consideration of a restricted range of issues and/or evidence. Expression of ideas lacks clarity, some specialist terms used, errors of grammar, punctuation and spelling detract from clarity.</p>
<p>1 mark Very brief/flawed Very brief or flawed description that demonstrates very little knowledge or understanding of research. Selection and presentation of information is largely or wholly inappropriate.</p>	<p>1 mark Rudimentary evaluation The use of material provides only a rudimentary commentary. Evaluation of research is just discernible or absent. Expression of ideas poor, few specialist terms used, errors of grammar, punctuation and spelling often obscure the meaning.</p>
<p>0 marks No creditworthy material presented.</p>	<p>0 marks No creditworthy material presented.</p>

ASSESSMENT OBJECTIVES

QUESTION	AO1 MARK	AO2 MARK	AO3 MARK
1a	2		
1b		4	
2a		2	
2b		4	
2c			4
3a			2
3b			2
3c		2	
3d			4
3e	6		
4	4		
Cognitive Totals	12	12	12

5a	2		
5b	2		
5c			3
6a			3
6b	2		
6c			2
6d			2
6e			2
7a		4	
7b		2	
8	6	6	
Developmental and Research Totals	12	12	12
Totals	24	24	24