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**Cambridge International Advanced Subsidiary and Advanced Level**

# MARK SCHEME for the October/November 2015 series

## 9698 PSYCHOLOGY

**9698/23** Paper 2 (Core Studies 2), maximum raw mark 70

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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## Section A

**1 Maguire et al. carried out a laboratory experiment using the snapshot method to investigate activation of the right hippocampus. An alternative way to investigate this would be to use the longitudinal method.**

**(a) Describe the snapshot method and outline how it was used in the Maguire et al. study. [5]**

Any five correct points
1 mark for each point up to a maximum of five points
No answer or incorrect answer, 0

Indicative content:
The snapshot method is one that takes place over a short period of time.
Maguire's study took place over a short space of time.
Participants had PET scans which are a short physiological test.
They are asked to describe four different (routes, film plots, famous landmarks and film frames) and the PET scanner records the activity in different parts of the brain.

Any other appropriate point.

Up to a maximum of 2 marks for the description of the snapshot method only.

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**(b) Design an alternative study using the longitudinal method to investigate activation of the right hippocampus and describe how it could be conducted with participants other than taxi drivers. [10]**

Candidates should describe the who, what, where, timing and how.

Major omissions include the what and how. Candidates must describe what the behaviours are that are being measured (areas of brain being studied, types of activities given to participants prior to scanning) and how (scanners used).

Minor omissions include who and where. Maximum of 4 marks if the candidate uses taxi drivers. Timing of the study is required for top band.

It is possible to achieve 9 marks with a small minor omission (e.g. the sampling method).

Cap at 4 marks if the study is very unethical.
Cap at 4 marks if it is clearly not a longitudinal method being used.
Cap at 4 marks if it is not investigating the activation of the right hippocampus (a brain scan needs to be used).

| | |
|---|---|
| Alternative study is incomprehensible. | 0 |
| Alternative study is muddled and impossible to conduct. | 1–2 |
| Alternative study is muddled and/or major omissions but possible. | 3–4 |
| Alternative study is clear with a few minor omissions and possible. | 5–6 |
| Alternative study is described with one minor omission and in some detail. | 7–8 |
| Alternative study is described in sufficient detail to be replicable including details of the length of the study. | 9–10 |

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**(c) Evaluate this alternative way of studying activation of the right hippocampus in methodological and practical terms. [10]**

Candidates need to consider a number of points regarding their study. These points can be both positive and/or negative.

Appropriate points could include a discussion about:

Difficulty in finding participants willing to be in a study for a long period of time
Lack of generalisability
Lack of control
Subject attrition
Expensive equipment
Tasks given lack ecological validity

Any other appropriate point.
In order to achieve higher marks (5+) the candidate must link their points to their investigation described in part **(b)**.

| | |
|---|---|
| No evaluation. | 0 |
| Evaluation is muddled and weak. | 1–2 |
| Evaluation is simplistic and/or not specific to the investigation. May include one point that is brief and specific to the investigation. | 3–4 |
| Evaluation is simplistic but specific to the investigation (may include general evaluation). May include one very detailed point. | 5–6 |
| Evaluation is good and specific to the investigation. Two or more points. | 7–8 |
| Evaluation is detailed and directly relevant to the investigation. Two or more points. | 9–10 |

**2 Loftus and Pickrell conducted a study to investigate the formation of false memories.**

**(a) What is meant by the term 'reliability' in psychology? [2]**

1 mark partial
2 marks full
Reliability is the consistency of the measuring device.

**(b) Describe <u>one</u> conclusion from the study that is useful in everyday life. [3]**

1–2 marks partial
3 marks full (a link between the conclusion and everyday life is required)
No credit given to results

Possible response:
False memories can be formed – 1 mark
False memories can be implanted into the minds of people – 2 marks
False memories can be implanted into the minds of people and this is useful to the courts as information given by witnesses could be incorrect – 3 marks
Candidates may discuss uses in court cases/police and possibly uses for childhood abuse memories that could come up during therapy.

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**(c) Discuss the strengths and weaknesses of reliable research using the Loftus and Pickrell study as an example. [10]**

Appropriate strengths and weaknesses will be varied. These could include:

Strengths
Studies are often done in a laboratory so therefore are controlled/standardised
Can be replicated at a later date to check consistency
Equipment is often used which is more scientific/accurate
Can be more valid if standardised
Often uses quantitative data which means comparisons can be made/statistics easily used.

Weaknesses
Can lack ecological validity if very standardised as this will be false
Often has quantitative data which lacks depth
Can lead to social desirability/demand characteristics as the standardisation may give away the nature of the study.

Any other appropriate point.

| | |
|---|---|
| No comment on reliable research. | 0 |
| Comment given but muddled and weak. | 1–2 |
| Consideration of both strengths and weaknesses but not specific to investigation<br>OR Consideration of either a strength or a weakness which is simplistic but specific to investigation. | 3–4 |
| Consideration of both strengths and weaknesses is simplistic but specific to investigation.<br>OR Consideration of either strengths or weaknesses which is detailed and specific to investigation. | 5–6 |
| Consideration of both strengths and weaknesses which is good but brief and specific to investigation. | 7–8 |
| Consideration of both strengths and weaknesses which is detailed and directly relevant to the investigation. | 9–10 |

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**(d) Discuss the extent to which the Loftus and Pickrell study is useful. [10]**

Candidates may discuss how the findings of the study by Loftus and Pickrell are useful and to who without discussing the extent to which the findings are useful. Give a maximum of 4 marks to these candidates.

Appropriate comments could include linking usefulness to –

The participants are likely to believe the 'lost in the mall' story as it came from a relative. (Good mundane realism)
The study can be replicated
Good age range of participants
Sample is small and mainly female
All students in the sample
Results are both qualitative and quantitative.

Any other appropriate comment.

| | |
|---|---|
| No comment on usefulness. | 0 |
| Comment on usefulness is muddled and weak. | 1–2 |
| Comment on usefulness which is not specific to the investigation<br>OR a brief comment on usefulness which is specific to investigation. | 3–4 |
| Consideration of usefulness is simplistic but specific to investigation and somewhat detailed. This could include one point.<br>OR Consideration of usefulness which is detailed but not specific to investigation. | 5–6 |
| Consideration of usefulness is good but brief (2 or more points) and specific to investigation. | 7–8 |
| Consideration of usefulness (2 or more points) which is detailed and directly relevant to the investigation. | 9–10 |

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## Section B

**3 (a) Outline what is meant by the term 'generalisations' in psychology. [2]**

1 mark partial, 2 marks full
Generalisations are possible where the study is realistic or has a good sample – 1 mark
The extent to which one group's results can be applied to the general population – 2 marks
The extent to which the situation in the study is realistic – 2 marks.

**Using the studies from the list below, answer the questions which follow:**

**Held and Hein (kitten carousel)**
**Bandura et al. (aggression)**
**Langlois et al. (infant facial preference)**

**(b) Describe how the data were collected in each of these studies. [9]**

Most likely answers (any appropriate answer receives credit) It can be either an issue that was addressed or not in the study:

Held and Hein: Quantitative data from visually guided paw placement, discrimination on a visual cliff (ratio of descents), blink response in active versus passive kittens.

Bandura et al.: Data collected through a one-way mirror. Children observed by two observers for imitative and non-imitative behaviour. They were observed in five second intervals. Ratings given for aggressiveness prior to the start of the study. Qualitative data collected from some of the children in terms of comments made about the behaviour of the model.

Langlois et al.: Mothers wore glasses and a light/buzzing noise was used to attract the infant's attention to the screen. They were timed on how long they gazed at the colour slides of the adult women and adult men. Their visual fixations were recorded on a video monitor.

| For each study: | |
|---|---|
| No answer or incorrect answer. | 0 |
| Identification of point relevant to question but not related to study OR comment from study but no point about data collection from the study. The description may be very brief or muddled. | 1 |
| Description of point about data collection from the study. (Comment with lack of understanding).<br>A clear description that may lack some detail. | 2 |
| As above but with analysis (comment with comprehension) about data collection from the study.<br>A clear description that is in sufficient detail. | 3 |
| Max mark | 9 |

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**(c) What problems may psychologists have when they make generalisations from psychological research? [9]**

Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.

Indicative content:
Studies can lack ecological validity
Samples may be small and not varied
Data collection methods may be invalid
Data collection methods may be unreliable
Not useful
May get demand characteristics/social desirability if participants know they are in a study.

Or any other relevant problem.

| Marks per point up to a MAXIMUM of three points. | |
|---|---|
| No answer or incorrect answer. | 0 |
| Identification of problem. | 1 |
| Description of problem related to generalisability<br>OR a weak description of a problem related to generalisability and applied to a study. | 2 |
| Description of problem related to generalisability and applied to the study effectively. | 3 |
| Max mark | 9 |

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**4 (a) Outline what is meant by the 'situational explanation of behaviour' in psychology. [2]**

1 mark partial, 2 marks full

Situational explanation of behaviour is where behaviour is explained because of the situation we are in – 1 mark.

This is where our behaviour is explained in terms of the situation we are in. For example, we might be aggressive because we were raised in an aggressive home.

**Using the studies from the list below, answer the questions which follow:**

**Milgram (obedience)**
**Piliavin et al. (subway Samaritans)**
**Schachter and Singer (emotion)**

**(b) Apply the situational explanation to the behaviours shown in each of these studies. [9]**

Milgram: Participants responded to various features of the environment (e.g. Yale University, experimenter in an official lab coat, etc.). This encouraged the participants to continue to the highest voltage on the shock generator.

Piliavin et al: Participants responded to the situation of the subway as well as the victim. Lots of people helped possibly because they could not leave the subway. Participants were more likely to help the cane victim than the drunk victim due to their appearance.

Schachter and Singer: In some of the conditions (misinformed and ignorant) participants responded to the behaviour of the stooge. For example, participants reported feeling happier with the euphoric stooge compared to the informed group. Also credit any discussion of the participants either copying the behaviour of the stooge or initiating similar behaviours.

| For each study: | |
|---|---|
| No answer or incorrect answer. | 0 |
| Identification of point relevant to question but not related to study or comment from study but no point about situational explanation from the study. The description may be very brief or muddled. | 1 |
| Description of point about situational explanation from the study. (Comment with lack of understanding.) A clear description that may lack some detail. | 2 |
| As above but with analysis (comment with comprehension) about situational explanation from the study. A clear description that is in sufficient detail. | 3 |
| Max mark | 9 |

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**(c) What problems may psychologists have when they investigate situational explanations of behaviour? [9]**

Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.

Indicative content:

May be difficult to create studies that are ecologically valid.
May create unethical studies.
May be difficult to find a representative sample.
May be difficult to create a valid measuring device.
Participants may respond to demand characteristics if the study is unnatural.
The findings may offer a reductionist explanation of social behaviour.
Difficult to control for individual differences.
Or any other relevant problem.

| | |
|---|---|
| Marks per point up to a MAXIMUM of three points. | |
| No answer or incorrect answer. | 0 |
| Identification of problem. | 1 |
| Description of problem related to investigating situational explanations<br>OR a weak description of a problem related to investigating situational explanations and applied to a study. | 2 |
| Description of problem related to investigating situational explanations and applied to the study effectively. | 3 |
| Max mark | 9 |

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