Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

PSYCHOLOGY **9698/23**

Paper 2 Core Studies 2 **October/November 2016**

MARK SCHEME

Maximum Mark: 70

Published

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.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

® IGCSE is the registered trademark of Cambridge International Examinations.

© UCLES 2016

Section A

1 Schachter and Singer collected quantitative data to investigate the two-factor theory of emotion. An alternative way to investigate the two-factor theory of emotion would be to collect qualitative data.

(a) Describe what is meant by quantitative data and outline how it was collected in the Schachter and Singer study. [5]

Any five correct points
1 mark for each point up to a maximum of five points
Can receive 1+4 or 2+3 marks. 1 or 2 for quantitative data description and 3 or 4 for outlining how it was collected in the Schachter and Singer study.

Indicative content:
- numerical data
- can make comparisons between data/groups
- can do statistical analysis on data.

In the Schachter and Singer study –
Standardised observations were conducted. Any descriptions of the behavioural categories are acceptable as are examples of results, e.g. joins in activity.
Self-report data were collected (e.g. how irritated, angry or annoyed would you say you feel at present – 5 point rating scale response).

(b) Design an alternative investigation which tests the two-factor theory of emotion collecting qualitative data and describe how it could be conducted. [10]

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

Major omissions include the what and how. Candidates must describe what behaviour is being measured (e.g. questions asked) and give some indication of how the data is collected (e.g. verbal questions to participants).

Minor omissions include who and where.

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

If very unethical/uses only quantitative data/does not investigate two factor theory, cap at 4 marks.

Alternative study is incomprehensible.	0
Alternative study is muddled and impossible to conduct.	1–2
Alternative study is muddled but possible and/or there are major omissions.	3–4
Alternative study is clear with a few minor omissions.	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.	9–10

© UCLES 2016

(c) Evaluate this alternative way of studying the two-factor theory of emotion in methodological and practical terms. [10]

Indicative content –

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

- validity of data collection method (e.g. participants could lie, find it difficult to express their answers)
- cannot compare participant's responses to each other or other groups
- ethics of asking intrusive questions (e.g. participants may not like having to explain their answers)
- reliability of collecting qualitative data
- researcher bias when interpreting data
- demand characteristics
- ecological validity (not normal practice to be asked these type of questions)
- generalisability of the sample
- ecological validity of the procedure.

Any other appropriate point.

In order to achieve higher marks 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 investigation.	3–4
Evaluation is simplistic but specific to the investigation (may include general evaluation). May include one detailed point.	5–6
Evaluation is good and specific to the investigation. Two or more points.	7–8
Evaluation is very detailed and directly relevant to the investigation. Two or more points.	9–10

© UCLES 2016

2 Tajfel conducted a study to investigate intergroup categorisation in boys.

(a) What is meant by 'validity' in psychology? [2]

1 mark partial
2 marks full

Validity is whether the findings are accurate. = 1 mark
Validity is whether the findings measure what they set out to measure. = 2 marks

(b) Outline <u>one</u> way in which the Tajfel study is valid. [3]

1–2 marks partial
3 marks full (must show how the study is valid.)

The matrices the boys completed related to the aim of the study. = 1 mark
The boys were asked to complete matrices showing in-group preferences. = 2 marks
The matrices the boys completed showed in- versus out-group preferences. This is a valid measure of categorisation in the boys as it clearly measures which group the boys favoured. = 3 marks

Up to 2 marks maximum for stating why it is valid (but not how this then relates to the aim of the study e.g. good controls, etc.)

© UCLES 2016

(c) Discuss the strengths and weaknesses that psychologists may face when trying to create valid research using the Tajfel study as an example. [10]

Strengths
- strengths of the data collection methods can create valid data
- if participants do not realise the nature of the study can get valid results
- good control can lead to validity
- good face validity of materials used or findings
- if the sample is varied can be valid.

Weaknesses
- difficult to get a varied sample
- difficult to make studies realistic (ecologically valid)
- participants may lie or show demand characteristics
- studies are often snapshot and do not show development over time
- have to deceive the participants in order to get valid results and avoid demand characteristics.

Any other appropriate point.

No comment on the strengths and weaknesses of trying to create valid research.	0
Comment given but muddled and weak.	1–2
Consideration of at least a strength and a weakness not specific to investigation **OR** Consideration of either a strength/weakness that is specific to validity and investigation (could be two strengths and/or two weaknesses).	3–4
Consideration of two or more points (at least one strength and one weakness) which are clear and specific to investigation.	5–6
Consideration of at least two strengths and two weaknesses which are clear and specific to investigation.	7–8
Consideration of at least two strengths and two weaknesses which are good and directly relevant to the investigation.	9–10

© UCLES 2016

(d) Discuss the extent to which the Tajfel study is useful. [10]

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

Appropriate comments could include linking usefulness to –

- sample is not generalisable
- researcher bias in interpreting data
- ecological validity of the study
- controls used in the study and the effect of this on reliability
- scientific nature of the study
- data is quantitative (can be used as both a positive and a negative point)
- reductionist nature of conclusions.

Any other appropriate comment.

Note – points can be positive as well as negative.

No comment on usefulness.	0
Comment on usefulness.	1–2
Comment on usefulness which is not specific to the investigation. **OR** Consideration of extent of usefulness which is simplistic but specific to investigation.	3–4
Consideration of usefulness is simplistic but specific to investigation and somewhat detailed. This could include one point. **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. **OR** Consideration of usefulness with one issue which is detailed and directly relevant to the investigation and the other issue(s) is more simplistic.	7–8
Consideration of usefulness (2 or more points) which is detailed and directly relevant to the investigation.	9–10

© UCLES 2016

Section B

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

1 mark partial
2 marks full

Reliability is about consistency. = 1 mark
How replicable/repeatable the study is. = 1 mark
Reliability is the consistency of the measuring device. = 2 marks
Examples of reliable measures can achieve 1 mark.

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

Baron-Cohen et al. (eyes test)
Dement and Kleitman (sleep and dreaming)
Loftus and Pickrell (false memories)

(b) Describe <u>one</u> control from each study and outline how each control increased reliability. [9]

Indicative content: Most likely answers (any appropriate answer receives credit):

Baron-Cohen et al.: All participants were given the same eyes task which consisted of 40 eyes. Autistic/AS participants were asked to judge the gender in the eyes test. All groups except the general population control were given the same AQ. This makes the study reliable as the participants all experienced the same procedure and the same tasks.

Dement and Kleitman: All went to a sleep lab and attached to the same type of equipment (EEG/EOG). All woken with a door bell and asked to record responses into a tape recorder. All asked same types of questions (Were you dreaming? If so, for 5 or 15 minutes?). As all were attached to the same type of equipment we can be confident brain activity was measured in the same way. All participants asked to avoid the same substances. All of these features ensured all participants experienced the procedure in the same way.

Loftus and Pickrell: The participants were all asked to recall as much as they could about four memories from childhood. All were given the same questionnaires with the same questions and rating scales (They were also asked to rate the clarity on a scale of 1 to 10, confidence on a scale of 1 to 5). All given the same rating scales so more consistent.

For each study	
No creditable answer.	0
Identification of point relevant to question but not related to study or comment from study but no point about controls/reliability from the study. The description may be very brief or muddled.	1
Description of point about controls/reliability 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 controls/reliability from the study. A clear description that is in sufficient detail.	3
Max mark	9

© UCLES 2016

(c) What problems may psychologists have when they attempt to make their studies reliable? [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:
- if very controlled, may lack ecological validity
- participants may respond differently to the controls
- participants may understand the task/questions asked in a different way
- if very controlled, participants may be subject to demand characteristics/social desirability
- researcher bias
- if very unethical, won't be able to replicate
- expensive/time consuming to replicate studies.

No credit for sampling unless clearly linked (e.g. may be difficult to find a similar sample in the future to repeat the study on or individual differences of participants).

Or any other relevant problem.

Marks per point up to a MAXIMUM of three points.	
No creditable answer.	0
Identification of problem.	1
Description of problem related to reliability. **OR** A weak description of a problem related to reliability.	2
Description of problem related to reliability and applied to the study effectively.	3
Max mark	9

© UCLES 2016

4 (a) Outline what is meant by the 'nature-nurture debate' in psychology. [2]

1 mark partial
2 marks full.

Nature is what we are born with (biological/genetic) and nurture is what we learn (product of experience or the environment) or any other suitable answer.
Give one mark for each correct definition.
If definition but not labelled award 1 mark.

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

Maguire et al. (taxi drivers)
Bandura et al. (aggression)
Held and Hein (kitten carousel)

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

Maguire et al.: Participants were given a PET scan which looked at a variety of brain regions including the right hippocampus. During the scan participants were asked to do five tasks (routes, landmarks, film plots, film frames and baseline number repetition).

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.

Held and Hein: Measured visually guided paw placement, discrimination of visual cliff and blink responses to an approaching object. Also tested pupillary reflex to light, tactual placing response and visual pursuit of a moving object.

For each study	
No creditable answer.	0
Identification of point relevant to question but not related to study or comment from study but no point about data collection. The description may be very brief or muddled.	1
Description of point about data collection 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 data collection. A clear description that is in sufficient detail.	3
Max mark	9

© UCLES 2016

(c) What problems may psychologists have when they try to investigate the nature-nurture debate? [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:

- Participants already have experiences so cannot say the results are due to nature/nurture.
- Difficulties with creating realistic studies
- Problems with access to suitable participants for the study.
- Difficult to distinguish whether behaviour is due to nature or nurture.
- Studies are often on children which may be unethical.
- Studies may lack ecological validity.
- Validity/reliability of measuring devices used.
- Sample may not be representative.
- Difficult to find a representative sample.
- If very realistic may be unethical.
- If informed consent obtained may be unrealistic.
- Difficult to control the variables in very realistic studies.
- Difficult to replicate due to lack of control.

Or any other relevant problem.

Marks per point up to a MAXIMUM of three points.	
No creditable answer.	0
Identification of problem.	1
Description of problem related to investigating the nature versus nurture debate. **OR** A weak description of a problem related to investigating the nature versus nurture debate and applied to a study.	2
Description of problem related to investigating the nature versus nurture debate and applied to the study effectively.	3
Max mark	9

© UCLES 2016